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Liber Johan. Beridge
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THE HISTORIE OF THE WORLD.

Commonly called,

THE NATVRALL HISTORIE OF C. PLINIVS SECVNDVS.

Translated into English by PHILEMON HOLLAND
Doctor in Physicke.

The first Tome.

LONDON,
Printed by Adam Islip.
1601.

4919

BIBLIOTECA
ARTHUR
SAMOTTHA

TO THE RIGHT HONOVRABLE SIR *ROBERT CECIL* KNIGHT, PRINCIPALL SECRETARIE TO THE QVEENS MAIESTIE, MASTER OF THE COVRT OF WARDS AND LIVERIES.

Chauncellor of the Vniversitie of Cambridge, and one of her *Maiesties most Honourable privie Councell.*

THe friendly acceptance which T. Livius *of Padua hath found in this Realme, since time he shewed himselfe in English weed unto her sacred Majestie, hath trained over unto him his neighbour* Plinius Secundus *from Verona. Whome, being now arraied in the same habit, yet fearfull to set foot forward in forrein ground, without the countenance of some worthie personage, who might both give him the hand at his first entrance in token of welcome, and also grace him afterwards with a favourable regard to win acquaintance, I humbly present unto your Honour. For considering the qualitie of the man, a Philosopher discoursing so deeply in all Learning, where may he looke for better acceptance than of him, who is most iustly styled, Patron of Learning? Which dignitie conferred of late upon your H. by the generall suffrages of a Noble Vniversitie (and that for your singular insight in all literature) as a complement to those high places whereunto the favour of a most prudent and judicious Princesse hath advaunced you, and the same correspondent to the rare wisdome, justice, and eloquence, which concurre in your person, like the severall beauties of the Rubie, Amethyst, and Emeraud meeting in one faire Opal, giveth a lovely lustre to your other titles, no lesse, than if the nine* Muses *and* Apollo, *represented naturally in that rich Agat of K.* Pyrrhus, *were inserted therein. Now if, as wee read of* * Alexander *and* * Demetrius, *two mightie monarchs, who amid their desseins of making conquests and besieging citties, beheld otherwhiles* Apelles *and* Protogenes *how they handled their pencils; it may please your Honour betweene the managing of State-affaires under her Majestie, to cast your eie eftsoons upon* Plinie *for your recreation, and see how lively he depeincteth, not* Venus Anadyomene, *drawne haply to the patterne of* Campaspe *a courtizan; nor* Ialysus *with his dog, in which picture,* fecit Fortuna naturam; *but even Nature her selfe, the immediat mother and nource of all things under the Almightie; I shall not only thinke him patronized thereby and sufficiently commended to the world, but also acknowledge my selfe much devoted unto your H. and bound for ever to prate for the encrease thereof, with long life and true happinesse.*

* Magnus.
* Poliorcetes.

Your Honours most readie at commaund,

Philemon Holland.

The Preface to the Reader.

HAppie were they in times paſt reputed (and not unworthily) who had that gratious and heavenly gift, *aut facere ſcribenda, aut ſcribere legenda:* that is to ſay, either to doe ſuch things as deſerved to be written, or to write that vvhich was vvorth the reading. Thoſe that could not attaine to theſe two braunches of felicitie, and yet utterly miſliked idlenes, contented themſelves in a third degree, namely, to take in hand the old works of their auncients, and by new labours to immortalize their memorie. Thus *Nicophanes* (a famous painter in his time) gave his mind wholly to antique pictures, partly to exemplifie and take out their patternes after that in long continuance of time they were decaied; and in part to repaire and reforme the ſame, if haply by ſome iniurious accident they were defaced. The ingenuous mind of this artizan thus devoted to antiquitie, as I doe highly commend; ſo I cannot chuſe but embrace his pollicie, ſeeking hereby to avoid the envie and reproofe of others. In this number I muſt raunge thoſe learned men in ſeverall ages, who to illuſtrat the monuments left by former writers, have annexed unto them their Commentaries; to ſave them entire and uncorrupt, have ſet thereto iudiciall obſervations; and to publiſh them for a generall benefit of poſteritie, have tranſlated the ſame into their mother language. As for my ſelfe, ſince it is neither my hap nor hope to attaine to ſuch perfection, as to bring foorth ſomevvhat of mine ovvne which may quit the pains of a reader, and much leſſe to performe any action that might miniſter matter to a writer; and yet ſo farre bound unto my native countrey and the bleſſed ſtate wherein I have lived, as to render an account of my yeers paſſed & ſtudies employed, during this long time of peace and tranquilitie, wherein (under the moſt gratious and happie government of a peereleſſe Princeſſe, aſsiſted with ſo prudent, politique, and learned Counſell) all good literature hath had free progreſſe and flouriſhed, in no age ſo much: me thought I owed this dutie, to leave for my part alſo (after many others) ſome ſmall memoriall, that might give teſtimonie another day what fruits generally this peaceable age of ours hath produced. Endeavoured I have therefore to ſtand in this third ranke, and beſtowed thoſe hours which might be ſpared from the practiſe of my profeſsion, and the neceſſarie cares of this life, to ſatisfie my countreymen novv living, and to gratifie the age enſuing, in this kind. Like as therefore I have travailed alreadie in *Titus Livius* a renowmed Hiſtoriographer, ſo I have proceeded to deale with *Plinius Secundus* the elder, as famous a Philoſopher. Now, albeit my intention and only ſcope vvas, to do a pleaſure unto them that could not read theſe authours in the originall: yet needs I muſt confeſſe, that even my ſelfe have not only gained therby encreaſe of the Latine tongue (wherein theſe works vvere vvritten) but alſo grovvne to farther knowledge of the matter and argument therein contained. For this benefit vvee reape by ſtudying the books of ſuch auncient authours,

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That the oftener we read them over, the more ſtill we find and learne in them: as beeing ſo iudiciouſly and pithily penned, that, as the Poët ſaid verie vvell, *decies repetita placerent.* Well may the nevveſt ſongs and laſt deviſed plaies delight our ears at the firſt, and for the preſent raviſh our ſenſes; like as horarie and early Summer fruits content our taſt and pleaſe the appetit: but ſurely it is antiquitie that hath given grace, vigor, & ſtrength to vvritings; even as age commendeth the moſt generous and beſt wines. In which regard, and upon this experience of mine ovvne, I nothing doubt but they alſo whome I might iuſtly feare as hard cenſours of theſe my labours, will not only pitie me for my pains, but alſo in ſome meaſure yeeld me thanks in the end, vvhen either by the light of the Engliſh (if they bee young ſtudents) they ſhall be able more readily to goe avvay vvith the darke phraſe and obſcure conſtruction of the Latine; or (being great ſchollers and taking themſelves for deepe Criticks) by conferring the one with the other, haply to eſpie vvherein I have tripped, they ſhall by that means peruſe once againe, and conſequently gather nevv profit out of that authour whom peradventure they had laid by for many yeers as ſufficiently underſtood. When ſome benefit (I ſay) ſhall accrew unto them likewiſe by this occaſion, I leſſe dread their fearfull doome, to vvhich ſo vvilfully I have expoſed my ſelfe. Well I wiſt, that among the Athenians, order vvas taken by lavv, That an enterlude nevvly acted ſhould be heard vvith ſilence and applauſe: vvhich cuſtome, as it vvas reſpective and favourable to the firſt endeavours of the actours, ſo it implied an inevitable danger of hiſsing out and utter diſgrace, if afterwards they chanced to miſſe and faile in their parts. Having ſhevved my ſelfe once before upon the ſtage, preſuming upon this priviledge and the curteſie of the theatre, I might have now ſitten ſtill and ſo reſted: In mounting up thus ſoon againe, I may ſeeme either in the aſſured confidence of mine ovvne worthineſſe, to proclaime a challenge to all mens cenſures; or els upon a deepe conceit of ſome generall connivencie make reckning of an extraordinarie and wonderfull favour. But as the choiſe that I have made to publiſh the monuments of other men, vvithout fathering any thing of mine ovvne, doth excuſe and acquit me for the one; ſo the frovvard diſpoſition of carpers in theſe daies vvherein wee live, vvill checke the other. Hovvbeit, conſidering ſuch pains undergone by me one man, for the pleaſure of ſo many; ſo much time ſpent of mine, for gaining time to others; and ſome opportunities of privat lucre overſlipt and loſt, to win profit unto all, I feare not but theſe regards may deſerve a friendly acceptance, & countervveigh all defects and faults eſcaped, vvhatſoever. The perſuaſion hereof, but principally the privitie of my affection at love unto my country (vvhich aſſured me of a ſafe-conduct to paſſe peaceably through their hands who are of the better ſort and well affected) induced me to a reſolution not onely to enter upon this nevv taske, but alſo to breake through all difficulties, untill I had brought the ſame, if not to a full and abſolute perfection, yet to an end and finall concluſion. Beſides this naturall inclination & hope vvhith carried me this vvay, other motives there vvere that made ſaile and ſet me forward. I ſavv how divers men before me had dealt vvith this authour, vvhiles ſome laboured to reforme vvhatſoever by iniurie of time vvas growne out of frame: others did their beſt to tranſlate him into their own tongue, and namely, the Italian and French: moreover, the Title prefixed therto ſo univerſall as it is, to wit, *The Hiſtorie of the World,*

or

or *Reports of Nature*, imported (no doubt) that he first penned it for the generall good of mankind. Over and besides, the Argument ensuing full of varietie, furnished with discourses of all matters, not appropriat to the learned only, but accommodat to the rude paisant of the countrey; fitted for the painefull artizan in town and citie; pertinent to the bodily health of man, vvoman, and child; and in one woord, suiting with all sorts of people living in a societie and common-vveale. To say nothing of the precedent given by the authour himselfe vvho endited the same, not with any affected phrase, but sorting vvell vvith the capacitie even of the meanest and most unlettered: who also translated a good part thereof out of the Greeke. What should I alledge the example of former times, wherein the like hath evermore been approved and practised? Why should any man therefore take offence hereat, and envie this good to his naturall countrey, which vvas first meant for the vvhole world? And yet some there be so grosse as to give out, That these and such like books ought not to bee published in the vulgar tongue. It is a shame (quoth one) that *Livie* speaketh English as hee doth: Latinists onely are to bee acquainted vvith him: As vvho vvould say, the souldiour vvere to have recourse unto the universitie for militarie skill and knovvledge; or the schollar to put on arms and pitch a campe. What should *Plinie* (saith another) bee read in English, and the mysteries couched in his books divulged: as if the husbandman, the mason, carpenter, goldsmtih, painter, lapidarie, and engraver, vvith other artificers, vvere bound to seeke unto great clearks or linguists for instructions in their severall arts. Certes, such *Momi* as these, besides their blind and erroneous opinion, thinke not so honourably of their native countrey and mother tongue as they ought: vvho if they vvere so vvell affected that vvay as they should be, vvould vvish rather and endeavour by all means to triumph novv over the Romans in subduing their literature under the dent of the English pen, in requitall of the conquest sometime over this Island, atchieved by the edge of their sword. As for our speech, vvas not Latine as common and naturall in Italie, as English here with us. And if *Plinie* faulted not but deserved well of the Romane name, in laying abroad the riches and hidden treasures of Nature, in that Dialect or Idiome which vvas familiar to the basest clowne: why should any man be blamed for enterprising the semblable, to the commoditie of that countrey in vvhich and for vvhich he vvas borne. Are vve the onely nation under heaven unvvorthie to tast of such knowledge? or is our language so barbarous, that it vvill not admit in proper tearms a forrein phrase? I honour them in my heart, vvho having of late daies troden the vvay before me in *Plutarch*, *Tacitus*, and others, have made good proofe, that as the tongue in an English mans head is framed so flexible and obsequent, that it can pronounce naturally any other language; so a pen in his hand is able sufficiently to expresse Greeke, Latine, and Hebrevv. And my hope is, that after mee there vvill arise some industrious *Flavij* vvho may at length *cornicum oculos configere*. For if my selfe, a man by profession othervvise carried avvay, for gifts farre inferiour to many, and vvanting such helps as others be furnished vvith, have in some sort taught those to speake English vvho vvere supposed verie untovvard to bee brought unto it; what may be expected at their hands, who for leisure may attend better; in wit are more pregnant; and beeing graced with the opinion of men and favour of the time, may attempt vvhat they will, and effect vvhatsoever

ver they attempt with greater felicity? A painfull and tedious travaile I confesse it is; neither make I doubt but many do note me for much follie in spending time herein, and neglecting some compendious course of gathering good and pursing up pence. But vvhen I looke back to the example of *Plinie*, I must of necessitie condemne both mine own sloth, and also reprove the supine negligence of these daies. A courtiour he was, and great favourit of the *Vespasians* both father and sonne: an oratour besides, and pleaded many causes at the barre: a martiall man withall, and served often times as a leader and commaunder in the field: within the cittie of Rome hee managed civile affairs, and bare honourable offices of State. Who vvould not thinke but each one of these places vvould require a whole man? and yet amid these occasions wherwith he vvas possessed, he penned Chronicles, wrate Commentaries, compiled Grammaticall treatises, and many other volumes vvhich at this day are utterly lost. As for the Historie of Nature now in hand, vvhich sheweth him to be an excellent Philosopher and a man accomplished in all kind of literature (the only monument of his that hath escaped all daungers, and as another Palladium been reserved entire unto our time) wherein hee hath discourfed of all things even from the starrie heaven to the centre of the earth; a man vvould marveile hovv hee could possibly either vvrite or doe any thing els. But considering the agilitie of mans spirit alvvaies in motion; an ardent desire to benefit posteritie, vvhich in these volumes hee hath so often protested; his indefatigable studie both day and night, even to the iniurie of nature, and the same continued in everie place, as well abroad as vvithinhouse; in his iourney upon the high way, where his manner was to read and to indite; in his ordinarie passage through the streets betweene court and home, vvhere hee gave himselfe no rest, but either read, or els found his notarie worke to vvrite; and for that purpose rode usually in an easie litter, vvith the said Notarie close by his side: lesse wonder it is, that he perfourmed his service to prince and state according to his calling: and withall delivered unto posteritie so many fruits of wit and learning. For vvhat is not the head of man able to compasse? especially making saile with a fervent desire and resolution to see an end, and besides taking the vantage of all moments, and looosing no time, vvherof he vvas *unus omnium parcissimus*. Touching his affection to search into the secrets of Nature, it vvas that and nothing els vvhich shortened his daies, and hastened his untimely death: for having lived not much above the middle age of man, desirous he was to know the reason, Why the hill Vesuvius burned so as it did? and approched so neare, that with the strong vapours and smoke issuing from thence, his breath vvas sodainly stopped, and himselfe found dead in the place: a man worthie to have lived for ever. What remaineth now, but onely to recommend unto my countreymen this worke of his (which for mine owne part I vvish to be immortall) vvere it not for one scruple to bee cleared, vvhich at the first troubled my selfe a little, and might peradventure othervvise offend some readers. In attributing so much unto Nature, *Plinie* seemeth to derogat from the almightie God, to him ἄγνωστος; and therefore daungerous (saith one) to be divulged. Farre be it from me, that I should publish any thing to corrupt mens manners, and much lesse to preiudice Christian religion. After conference therefore vvith sundrie divines about this point, vvhom for their authoritie I reverence; whose learning I honor and embrace; and in whom for iudgement & syncerities of religion

I rest,

I reſt, confirmed I was in my firſt purpoſe, and reſolved to finiſh that vvhich I had begun, namely, not to defraud the world of ſo rich a gem, for one ſmall blemiſh appearing therein. And that it may appeare how I did not abound in mine ovvne ſenſe, but had regard as well to ſatisfie the conſcience of others as mine ovvne, I have thought good to annex immediatly hereunto, in manner of a Corollarie, the opinion of one grave and learned preacher concerning this doubt, as it vvas delivered unto me in writing; vvhich for that it is grounded upon ſufficient reaſons, and accordeth with the iudgement of the reſt, the leſſe I reſpect the raſh proiects of ſome fantaſticall ſpirits: nothing doubting, but the ſame will ſettle the minds of the weake, and free my labours from the taint of irreligion.

The copie of the ſaid Letter, written as touching the Tranſlation of Plinie.

MY beloved, in twentie yeers and better ſo many tokens of our mutuall love paſſing betweene us, I need not now to profeſſe my affection to your ſelfe; and my daily converſing with you, hath yeelded my approbation of your tedious labor in tranſlating Plinie. Theſe few lines therefore ſhall onely ſerve to witneſſe unto others the deſerved account which for your learning I have alwaies made of you, and my conceit of this your travaile in opening to your countrymen the treaſurie of Nature: therein to ſee and to admire the wiſdome, power, and the goodneſſe of the only true God, the Framer of Nature. I am not of their minds, who deſire that all humane learning in Arts and Naturall Philoſophie ſhould be reſerved under locke and key of ſtraunge language, without the which no other man ſhould have acceſſe unto it: For as ſuch knowledge is a braunch of that excellencie wherein man was formed, ſo the repaire thereof (though it be not the chiefe) is yet a thing unworthily neglected, as well in regard of our owne comfort therein gained, as for the glorie of God thereby promoted. And it was the wiſdome and provident hand of the All-ſufficient, ſo to guide the wiſe heathen in Arts and Nature, that they ſhould publiſh ſuch their skill unto their countreymen in mother tongue: partly to correct the rudeneſſe which is in ignorance, and in part to leave them
Tit. 1. *the more inexcuſable: In which regard, they may in ſome ſort be called, The Prophets and Teachers of the heathen. And though Plinie and the reſt were not able by natures light to ſearch ſo far as to find out the God of Nature, who ſitteth in the glorie of light*
Rom. 1. *which none attaineth, but contrariwiſe in the vanitie of their imagination bewrayed the ignorance of fooliſh hearts, ſome doting upon Nature her ſelfe, and others upon ſpeciall creatures, as their God: yet feare we not that Chriſtians, in ſo cleare light, ſhould be ſo farre bewitched by ſuch blind teachers, as to fall before thoſe heathen idols. Yea, though ſome of them (as namely Plinie) have ſpoken diſhonourably of the only true God and of his providence, becauſe they knew him not; which ſpeeches (if it might ſtand with the lawes of Tranſlation) I could wiſh were utterly omitted; yet may wee hope that Chriſtian men ſo long taught by the light of grace out of the holy word of God, will no leſſe therefore give him his deſerved honour, than when they doe in like ſort heare the*
2. Reg. 18. *blaſphemie of Sanneherib king of Aſhur, who ſent to raile upon the living God. I feare not the corrupting of unſtable minds any thing ſo much by theſe fooliſh Gentiles which are without, as by the deceitfull ſpirit of error ſpeaking in the mouth of men within: ſuch*
Cant. 2. *I meane as are within the boſome of the Church. Theſe are the foxes by whome we feare*

the

the ſpoile of the Lords vines when as the grapes firſt begin to cluſter; for whoſe taking I deſire that all Gods husbandmen would bee more carefull. As for the ſpeeches of theſe blind heathen, the true Chriſtian may well thereby be provoked to extoll the mercie of God, who ſitteth in ſo glorious a light as hath daſled the ſharpeſt ſight of Nature; but for our comfort hath put a vaile upon his glorie, and by his grace hath ſo cleared the eye of our underſtanding, that wee might ſee his face in his beloved, and know him to be the only true God, and his bleſſed providence upon all his creatures. And when they ſhall perceive that the wiſeſt clearke in naturall skill could non learne by the booke of heaven Pſal.19. *and earth to know their maker, whoſe glorie they declare, and handiworks ſet out; nor* Rom.1. *who it was that framed Nature, when by his word he firſt created them in ſuch excel-* Gen.1. *lencie, and then, by his bleſſing gave, and by his providence working all in all, doth yet maintaine ſuch an operative power, as by the which they are ſtill continued in their kinds: nor how it came to paſſe that Nature loſt her excellencie in all creatures, and her* Gen.3. *power unto good was not only weakened (whence we ſee her faile in many of her purpo-* Rom.8. *ſes) but alſo perverted unto evill; then (I ſay) they will the more be ſtirred up by Gods* Pſal.119. *grace to make reverent account of the holy Scriptures, which God in rich mercie hath* & 147. *given to them to be a light in all things for to direct them through the errors in Natures blindneſſe, and to bring them to the heavenly Ieruſalem and happie world of all the holie where he dwelleth, whome they worſhip in unitie and trinitie. Proceed then my beloved friend to bring unto the birth your ſecond labour; whereof I pray that God may have honour in the praiſe of his works throughout nature, and wiſh you comfort in good acceptance with the reader, and your countrie uſe and pleaſure in the skill thereof. Vnto him which onely hath immortalitie and dwelleth in that light which none attaineth, to God only wiſe be all honour and glorie. Iunij xij. 1601.*

Your loving friend in the Lord,

H. F.

The Errata.

IN the end of the dedicatorie Epiſtle of Plinie himſelfe.for Virilitigatores, read Vitiligatores. pag. 2.lin.32. for elevancie r. elegancie.p.4.l.43.I neither ſee,r.neither ſee I.p.30.l.34.ſtrike pits,r.ſinke pits.p.37. l.17.to, living,r.to live.l.52.chaume r.chaune.115.40.from whence,r.from thence.118.18.Gynæcocatrumeni,r.Gynæcocratumeni 135.18.on the one ſide confronteth both Perſis and Perſia, r.on the one ſide or other confronteth both Perſis and Parthia. 144.49.Aſsitæ,r.Aſcitæ. 155.24.Hirpix,r.Hirpiæ.160.42. Iphictus,read Iphiclus.161.31.imaginate,read imaginative. 164.32.dentifices,r.dentifrices. 165.18.Puſie,r.Puſio.166.45.perforce,r. performe.169.1.of the Commons,r. Commonweale.32.ſaile,taken,read ſaile, woon. 41.for 30 armies,r.30 yeares.179.19,as then were,r.as there were.185.46.dore ſide,r.dore ſill,188.33.Chrion,r.Chiron.47.Chip, ax,r.Chip-ax.195.31.perched,r.perches.197.13.keene lill,r.keene bill.200.5.diſtinguiſh,r.which diſtinguiſh.201.47.have deviſed. As touching, r.have deviſed as touching.207.4. which even was, r.which even then, was. 208 39. hardneſſe,r.hardened. 42.his heat,r.his head.213.9 receiving,r.reſerving 222.31.hath,r.hath lived.224.46.kine,r.kind.48.kind,r.kine.226.55.to make them.r.to make him.230.14.know that,r.know when ? 45.Summam, r.Sumen.244.21.Saredame,r.Sardane 246.10.Eleponts. r.Eelepouts.253.7.lie with,r.lie without.260.14.Tullus,r.That Tullus.261.29.Tarped,r.Torpedo.265.31. Muſcilong,r.Muſcilage.268.40.may beleeve,r.may well beleeve.269.11.being ſo,r.be ſo.276.32.Dawes,r.Doves.278.8 name of Martius,r.ſurname of Martius.283.38.have crooked,r.have not crooked.293.16.in margent for χῶρις,r.χωρὶς.302.12.the male,r.the male viper. 307.37.for bruſe.r.brouſe. 311.2 any ſound, r.not the ſound. 3.and yet in, r.for in. 315.52.ſpread,r.ſpew.319.50.put,read pull. 321.23.they blow,r.doth blow.359.16.favourer,r.favourit. 362.22.Daffodill.r.Aſphodell.367.44 wigs,r.bigs. 382.3.Sinopum, r.Sang-dragon.388.2.include within the Parentheſis as far as,divine ſervice. 393.4.cardage,r.cordage. 396.10.whole plant, r.whole planke.55.many words more,r.any more words.399.53.receit,r.cerot.408.32.Area,r.Arca.33.wonders, r.roundnes. 417.44.Dexteriæ,r. Deuteriæ.421.29.eight ounces,r.five ounces.425.1 burning,r.bruing.430.55,trees,r.lees.439.40.Sementium,r Sementine.443.38.Puteoli,r.Puteal.446.52.βαχαν, r.βαλανὸι.451.44.hot hen, r.white hen.48.Laurell-braunched, read Laurell-branch.458.24.the maſt,r.that maſt.461.30.parts of France,r.parts of Italie.464.21.in the margent.Palimpaſſa,read Palimpiſſa.465.16. Piſcaſphaltum,r Piſſaſphaltum.466.9.cataplaſter,r.cataplaſme.470.14.frugous,r.fungous.472.24.convenient,r conveniently.480.40.Coryuti,r.Corymbi.484.34.oeleth,r.oelets.39.buildings,r bindings.490.48.pouderous r.ponderus.491.12.Barchus,r.Bocchus 40.foure years,r.foure hundred yeares.495.3.Lucane,r.Vulcan.501.47.to proſper or,r.to proſper better or.502.52.grafting,r.graſing.504.12.hungrie, bitter, r hungrie and bitter.39.Tenara,read Tenera.55.aſt.read raſt. 517.31.ſtocke is,r.ſtocke be.518.49.but muſt,r.muſt.429.15.in marg. lines,r.limes.534.39.Ocynium,r.Ocymum.541.27.ſuck, r.ſmite.28.named,r.is named.547.10.in the margent,r.Quadrantall.552.in the title read eighteenth booke. 55.ſweetly,read ſubtillie.554.52.in the marg.r.Laudato. 557.3.forkes,r.forke. 4.ſtorch,r.Storke. 558.3.fuell,r.Fennell.559.49.their weight, r.the weight.573.12.in the margent,r.Fabali.54.Trifolium,r. Trifolie.575.22.in Margin,r.de Plant.23. to ſpeake,read to treat. 46.Sea greene,r.Sea-greene.577.42.Sung,r.Sing.578.11.ſull,r.full.34.dunging it,r.dunging it well. 579.13.in marg. r.Strigare.54.Licare and Delicare,r.Lirare and Delirare.581.35.Frumentie,r. Frument.582.6.Tenara,r.Tenera.586.21.Chalcidians r.Chaldæans.593.54.not pain,r.not take the paine.597.55.men take,r.men have.598.4.ſundry,r.ſtudie. 604.14.meevils,read weevils.

THE FIRST BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

*The Preface or Epistle Dedicatorie to Prince *Vespasian, his [freind] C. Plinius Secundus sendeth greeting.*

*1. Tim.

THese books containing the Historie of Nature, vvhich a fevv daies since I brought to light (a nevv vvork in Latin, and namely among the Romanes, your cittizens and countrimen) I purpose by this Epistle of mine to present and consecrate unto you, most svveet and gentle Prince [for *this title accordeth fittest unto you, seeing that the name of [*Most mightie] sorteth vvell vvith the age of the Emperor your father:] vvhich haply might seeme boldnesse and presumption in me, but that I know hovv at other times **you were wont to have some good opinion of my toies and fooleries.* Where, by the vvay, you must give me leave to mollifie a little the verses vvhich I borrovv of my *countriman Catullus.* (See also hovv I light upon **a word* used among soldiors, which you are acquainted vvith, since time vve served both together in the camp:) For he as you vvot full well, changing the former sillables of his verses one for another, made himselfe somewhat more harsh than he would seeme to be unto the fine ears of his familiar friends, the *Veranioli & Fabulli.* And withall, I would be thought by this my malapart writing unto you, to satisfie one point, which, as you complained in your answer of late to another rude & audacious letter of mine, I had not performed, to wit, That all the world might see (as it were upon record) how the Empire is managed by you and your father equally: and notwithstanding this imperiall maiestie wherunto you are called, yet is your affabilitie and maner of conversing with your old friends, fellow-like, & the same that alvvaies heretofore it had been. For albeit you have triumphed vvith him for your noble victories, ben Censor in your time, and Consull *six times, executed the sacred authoritie of the Tribunes, patrones, and protectors of the Commons of Rome, together vvith him: albeit I say you have othervvise shevved your noble heart in honouring and gracing both the court of the Emperor your father, and also the vvhole state of Knights and Gentlemen of Rome, vvhiles you vvere captaine of the guard, and Grand maister of his house and roiall pallace (in which places all, you caried your selfe respectively to the good of the Commonweale) yet to all your friends, and especially to my selfe, you have borne the same countenance as in times past vvithin the campe, vvhen vve served under the same colours, and lodged together in one pavilion. So as in all this greatnesse and high estate vvherunto you are mounted, there is no other change and alteration seen in your person but this, That your power is novv answverable to your vvill, & able you are to do and performe that good vvhich you ever meant, and still intend.

* *Suavissimus.*

* *Maximus.*

* *Namque tu solebas, Meas esse aliquid putare nugas.*

* *Conterraneum.*

It seemeth that *Pliny* read thus in *Catullus, Tu putare namque, Nugas esse aliquid meas solebas,* which indeed was but an hard composition and couching of the words.

* *Sexies,* or rather *Septies,* out of *Suetonius.*

And

And howſoever this great maieſtie, reſplendent in you on every ſide, in regard of thoſe high dignities above rehearſed, may induce the vvhole vvorld beſides to reverence your perſon in all obeiſance; yet I for my part am armed onely vvith a kind of audacitie and confidence to ſhevv my dutie and devoire unto you, after a more familiar manner than others: and therfore, this my adventurous raſhnes, vvhatſoever, you muſt impute unto your ovvn courteſie; and if I chaunce to fault therein, thanke your ſelfe therefore, and ſeeke pardon at your ovvn hands. Well, baſhfulneſſe I have laid aſide, and put on a bold face, and all to no purpoſe. For why? although your gentleneſſe and humanitie be one way attractive and induceth me to draw neare unto your preſence, yet another way you appeare in great maieſtie: the ſublimitie I ſay of your mind, your deepe reach, high conceit, and
3 rare perfections, ſet me as far back: no lictors & huiſhers marching before you, ſo much, that I dare not approch. In the firſt place: Was there ever any man, whoſe words paſſed from him more powerfull, & who more truly might be ſaid to flaſh forth as lightning the force of eloquence? What Tribune was there known at any time to perſuade & move the people with good language, more effectually? How admirable was your utterance in thoſe publick Orations, wherin you thundered out the praiſe-worthie acts of the Emperor your father, that all the grand-place rung therwith? What a ſingular teſtimonie ſhewed you of rare kindneſſe & affection to your brother, in ſetting out his praiſes to the full? As for your skill in Poëtrie, how excellent, how accompliſhed is it. Oh the bountie of your mind! Oh the fertilitie of your pregnant ſpirit! that you ſhould find means to imitat, yea and to match your *brother in that kind. But who is able boldly to give an eſtimat of theſe gifts to their worth? How may a man enter into the due conſideration ther-
2 of, without feare of the exquiſit cenſure and exact iudgement of your wit, eſpecially being provoked and challenged therunto as you are. For to ſay a truth, the caſe of them who publiſh a worke in generall tearmes, is far unlike to theirs that will ſeeme to dedicat it particularly, and by name, to a prince ſo iudicious as your ſelfe. For had I ſet forth this my booke ſimply, & ſtaied there without any perſonall dedication, thē I might have come upon you & ſaid, Sir, what ſhould a mightie Commander and Generall of the field as you are, buſie himſelfe to read ſuch matters? vvritten theſe treatiſes were to the capacitie of the vulgar people, for baſe commons, rude husbandmen, and peaſants of the countrie, for poor artiſans; and in one word, to gratifie them who had no other means of great emploiment, nor time & leaſure but to ſtudie upon ſuch points and nothing els: What ſhould you make your ſelfe a cenſor of this worke? And verely, when I made firſt ſhew of this enterpriſe of mine, I never reckned you in the number of thoſe iudges that ſhould paſſe their ſentence upon theſe writings; I wiſt full well that you were a greater perſon far, & I ſuppoſed that you would never abaſe your ſelfe nor ſtoupe ſo low as to read this book of mine. Over and beſides, a common caſe it is, and incident to men of deepe learning and great conceit, that otherwhiles exception may be taken againſt them, and their iudgement reiected in this behalfe. Even *M. Tullius* that renoumed Orator, and vvho for vvit and learning had not his fellovv, taking the vantage of that libertie, uſeth the benefit therof: and (vvhereat vve may vvell marvell) maintaineth the action by an advocat, and taketh example (for his defence) from *Lucilius*: for in one part of his vvorkes thus hee ſaith, *I would not have learned* Perſius *to read theſe bookes of mine, loth I am that he ſhould cenſure me.*

*For *Domitian Veſpaſian* was reputed an excellent Poet.

As

As for *Lælius Decimus*, I am content to submit them to his opinion. Now if such an one as *Lucilius*, who was the first that durst controule the vvritings of others, and tooke upon him to scoffe at their imperfections, had reason thus to say; if *Cicero* took occasion to borrow the said speech of him for to serve his own turne, and namely in his Treatise of Politiques, vvhere he vvrote of a Commonweale; how much greater cause have I to distrust my selfe, and to decline & avoid the censure of some iudge of deepe understanding? But cut I am from this refuge and meanes of defence, in that I expressely make choise of you in this dedication of my worke: for one thing it is to have a iudge, either pricked by pluralitie of voices, or cast upon a man by drawing lots; and a farre other thing to chuse and nominat him from all others: and great difference is there betweene that cheare and provision which we make for a gueſt solemnely bidden and invited, and the suddaine fare and intertainement which is readie for a stranger who commeth to our house unlooked for. *Cato*, that professed enemie of ambition, vainglorie, and indirect suit for offices, who took as great contentment in those estates and dignities which he refused and reiected, as in them which he enioied, attained to this good name of uprightnesse and synceritie, that when in the hotest broile about election of Magistrats that ever was in his time, they that stood therfore, put into his hands their mony upon trust, as a cautionarie pawne and assurance of their integritie and fidelitie that way; they professed that they did it in testimonie of their conceit of his equitie and innocence, the cheefe and onely thing that a man is to regard in this life: wherupon ensued that noble and memorable exclamation of *M. Cicero*, who speaking of the said *Cato*, brake out into these words: Oh gentle *M. Portius*, hovv happie and blessed art thou, vvhom no man vvas ever so hardie as to sollicite to any leaud thing, or contrary to right and honestie! *L. Scipio*, surnamed *Asiaticus*, at vvhat time as he appealed unto the Tribunes of the Commons, and besought their lawfull favour (among vvhome, *C. Gracchus* vvas one, a man vvhom he tooke for his mortall enemie) presuming upon the goodnesse of his cause, gave out and said, That his verie enemies, if they vvere his iudges, could not chuse but quit him and give sentence on his side. Thus vvee see how everie man maketh him peremptorily the supreme and highest iudge of his cause, vvhom himselfe chuseth and appealeth unto: which manner of choise the Latines call Provocatio. As for your selfe verely, vvho are set in the most eminent & cheefe place among men, & otherwise endued vvith singular eloquence and profound knowledge, no marvell is it, if those that doe their dutie unto you, salute you, kisse your hand, and come with great respect and reverence: In which regard, exceeding care above all things would be had, that whatsoever is said or dedicated unto you, may beseem your person, & be worth acceptation. And yet the gods reiect not the humble praiers of poore countrey peasants, yea, and of manie nations, vvho offer nothing but milke unto them: and such as have no Incense, find grace and favour manie times with the oblation of a plaine cake made onely of meale and salt; and never was anie man blamed yet for his devotion to the gods, so he offered according to his abilitie, were the thing never so simple.

For mine own part, challenged I may be more still for this my importune and inconsiderat boldnesse, in that I would seeme to present these bookes unto you, compiled of so slender stuffe & matter as they be: for therin can be couched no

great wit (which otherwiſe in me was ever mean and ſimple) neither admit they any digreſsions, orations, ſpeeches, and diſcourſes, ne yet admirable caſes & variable chaunces, nor any other occurrent, either pleaſant to rehearſe, or delectable to hear. The truth is this, the nature of all things in this world, that is to ſay, matters concerning our daily and ordinary life, are here deciphered & declared, and that in barrain tearms, without any goodly ſhevv of gay and glorious phraſes: and vvhatſoever I have put dovvn, concerne it doth the baſeſt points therof, inſomuch as for the moſt part I am to deliver the thing in hand, either in ruſticall ſpeech, or els in forrain, nay, in barbarous language, ſuch alſo as may not vvell be
2 uttered, but vvith reſerving honour to the hearers, and reverence to the readers.

Moreover, the vvay that I have entred into, hath not ben troden beforetime by other vvriters, being indeed ſo ſtrange & uncouth, as a mans mind vvould not willingly travell therin. No Latin author among us hath hitherto once ventured upon the ſame argument, no one Grecian whatſoever hath gone through it and handled all: and no marvell, for many of us love not to take any pains, but ſtudy rather to pen matters of delight and pleaſure. True it is, I muſt needs ſay, that others have made profeſsion hereof, but they have done it with ſuch ſubtiltie and deepneſſe, that all their travels and writings by that means, lie as it were dead and buried in darkneſſe. Now come I, & take upon me to ſpeake of every thing, and to gather as it were a compleat body of arts and ſciences (which the Greeks call ἐγκυκλοπαιδείας) that are either altogether unknown or become doubtful, through the overmuch curioſitie of fine wits: again, other matters are deciphered in ſuch long diſcourſes, that they are tedious to the readers, inſomuch as they loath and abhor them. A difficult enterpriſe it is therfore to make old ſtuffe new, to give authoritie & credit to novelties, to poliſh and ſmooth that which is worne and out of uſe, to ſet a gloſſe & luſtre upon that which is dim and dark, to grace & countenance things diſdained, to procure beleef to matters doubtfull; & in one word, to reduce nature to all, and all to their own nature. And verely to give the attempt only & ſhew a deſire to effect ſuch a deſſeigne as this, although the ſame be not brought about and compaſſed, were a brave and magnificent enterpriſe. Certes of this ſpirit am I; that thoſe learned men & great ſtudents, who making no ſtay but breaking through all difficulties, have preferred the profit of poſterity before the tickling and pleaſure of itching ears in theſe daies; which I may proteſt that I have aimed at, not in this worke only, but alſo in other of my books alreadie: and I profeſſe, that I wonder much at *T. Livius*, otherwiſe a moſt renowned & famous writer, who in a preface to one of his books of the Roman hiſtorie which he cõpiled from the foundation of Rome, thus proteſted, That he had gotten glorie ynough by his former writing, and might ſit ſtill now & take his eaſe, but that his mind was ſo reſtleſſe and ſo ill could abide repoſe, that contrariwiſe it was fed and nouriſhed with travell & nothing els. But ſurely me thinks, in finiſhing thoſe Chronicles, he ſhould in dutie have reſpected the glory of that people which had conquered the vvorld and advanced the honour of the Romane name, rather than diſplaied his owne praiſe and commendation: Ywis, his demerit had been the greater, to have continued his ſtorie as he did, for love of the ſubiect matter, and not for his privat pleaſure; to have I ſay performed that peece of vvork more to gratifie the ſtate of Rome, than to content his owne mind and affection. As touching my ſelfe (foraſmuch as *Domitius Piſo* ſaith, That bookes ought to be

trea-

treaſuries & ſtore-houſes indeed, and not bare & ſimple vvritings) I may be bold to ſay and averr, That in 36 Books I have compriſed 20000 things, all worthie of regard & conſideration, which I have collected out of 2000 volumes or therabout, that I have diligently read (and yet verie fevv of them there be that men learned othervviſe, and ſtudious, dare meddle vvithall, for the deepe matter and hidden ſecrets therein contained) and thoſe vvritten by 100 ſeverall elect and approved authors: beſides a vvorld of other matters, vvhich either vvere unknovvn to our forefathers and former vvriters, or els aftervvards invented by their poſteritie. And yet I nothing doubt but many things there be, vvhich either ſurpaſſe our knovvledge, or els our memorie hath overſlipt: for men vve are, & men emploied in many affairs. Moreover, conſidered it vvould be, that theſe ſtudies vve follovv at vacant times and ſtolne hours, that is to ſay, by night ſeaſon onely; to the end that you may knovv, hovv vvee to accompliſh this, have neglected no time vvhich vvas due unto your ſervice: The daies vve vvholly employ & ſpend in attendance about your perſon; we ſleepe only to ſatisfie nature, even as much as our health requireth, and no more; contenting our ſelves with this revvard; That vvhiles vve ſtudie and muſe (as *Varro* ſaith) upon theſe things in our cloſet, vve gaine ſo many hours to our life; for ſurely vve live then onely, vvhen vvee vvatch and be avvake. Conſidering novv thoſe occaſions, thoſe lets and hinderances above-named, I had no reaſon to preſume or promiſe much; but in that you have emboldened me to dedicat my books unto you, your ſelfe perfourmeth vvhatſoever in me is vvanting: not that I truſt upon the goodneſſe and worth of the worke, ſo much, as that by this means it will be better eſteemed and ſhevv more vendible: for many things there be that ſeeme right deare & be holden for pretious, only becauſe they are conſecrated to ſome ſacred temples.

As for us verely, we have vvritten of you all, your father *Veſpaſian*, your ſelfe, and your brother *Domitian*, in a large volume vvhich vve compiled touching the hiſtorie of our times, beginning there vvhere *Aufidius Baſſus* ended. Novv if you demand & aske me, Where that hiſtorie is? I anſvver, That finiſhed it vvas long ſince, and by this time is iuſtified and approved true by your deeds: otherwiſe I vvas determined to leave it unto my heire, & give order that it ſhould be publiſhed after my death, leaſt in my life time I might have ben thought to have curried favor of thoſe, vvhoſe acts I ſeemed to pen vvith flatterie, & beyond all truth. And therfore in this action I do both them a great favour vvho haply vvere minded before me to put forth the like Chronicle, and the poſteritie alſo vvhich ſhall come after; vvho, I make reckning & know, vvill enter into the liſts vvith us, like as vve have done with our predeceſſors. A ſufficient argument of this my good mind & frank hart that way you ſhal have by this, That in the front of theſe books novv in hand, I have ſet down the verie names of thoſe writers, vvhoſe help I have uſed in the compiling of thē: for I have ever ben of this opinion, That it is the part of an honeſt minded mā & one that is full of grace & modeſty, to confeſſe frankly by whō he hath profited & gotten any good: not as many of thoſe unthankful perſons have done, vvhō I have alledged for my authors. For to tell you a plaine truth, know thus much frō me, that in cōferring thē togither about this vvork of mine, I have met with ſome of our modern vvriters, who word for word have exēplified & copied out vvhole books of old authors, & never vouchſafed ſo much as the naming of them, but have taken their labors & travels to themſelves. And

this

this they have not done in that courage and ſpirit to imitate, yea and to match them as *Virgil* did *Homer*: much leſſe have they ſhevved that ſimplicitie & apert proceeding of *Cicero*, vvho in his books of Pollicie and Common-weale profeſſeth himſelfe to hold with *Plato*; in his Conſolatorie Epiſtle written to his daughter, confeſſeth and ſaith plainly thus, I followv *Crantor*, & *Panætius* likewiſe in his Treatiſe concerning Offices. Which worthie monuments of his (as you know vvell) deſerve not onely to be ſeene, handled, and read daily, but alſo to be learned by heart everie word. Certes, I hold it for a point of a baſe and ſervile mind, and vvherein there is no goodneſſe at all, to chuſe rather to be ſurpriſed and taken in theft, than to bring home borrowed good, or to repay a due debt, eſpecially vvhen the occupying, uſe, and intereſt thereof, hath gained a man as much as the principall.

Novv as touching the titles and inſcriptions of Bookes, the Greeks therein have a vvoonderfull grace and great felicitie: ſome have entituled them Κηρίον, vvhereby they would give us to underſtand of A ſvvet hony-combe: * others Κήρας Αμαλθέας, that is to ſay, The horne of plentie and ſtore: in ſuch ſort, that vvhoſoever readeth theſe goodly titles, muſt needs hope for ſome great matters in ſuch books, and as the proverb goeth, looke to drinke there or els no vvhere, a good draught of hens milke. You ſhall have moreover their books ſet out vvith theſe glorious inſcriptions, The Muſes, The *Pandects, *Enchiridion, * Λειμών, *Πινακίδιον: Goodly names all, & ſuch, as who would not make default of appearance in court, and forfeit a recogniſance or obligation, to unclaſpe ſuch books and turne over the leafe? But let a man enter into them and read forvvard, Lord! hovv little or no ſubſtance at all ſhall he find within the verie mids, anſvverable to that brave ſhevv in the front or outſide thereof? As for our countreymen (Latines I meane and Romans) they be nothing ſo fine and curious as the Greeks, groſſe are they in compariſon of them in giving titles to their books: they come with their Antiquities, Examples, and Arts, and thoſe alſo be ſuch authors as are the moſt pleaſant and of fineſt invention amongſt them all. *Valerius* vvho (as I take it) vvas named *Antias*, both for that he vvas a cittizen of Antium, and alſo becauſe the aunceſtours of his houſe vvere ſo called, vvas the firſt that gave to a booke of his ovvn making, the title of *Lucubratio*, as a man vvould ſay, Candle-vvorke or Night-ſtudie. *Varro*, he tearmeth ſome of his Satyres *Seſculyxes* and *Flexibulæ*. *Diodorus* among the Greeks vvas the firſt that laid aſide toyiſh titles, and becauſe he vvould give ſome grave name to his Chronicles, entituled it *Bibliotheca*, *i.* a Librarie. *Apion* the famous Grammarian, even he vvhome *Tiberius Cæſar* called the Cymball of the vvorld (vvhereas indeed he deſerved to be named a Timbrell or Drum rather for ringing and ſounding publicke fame) vvas ſo vainglorious, that he ſuppoſed all thoſe immortalized unto whome he wrote or compoſed any pamphlet vvhatſoever. For mine ovvne part, although I nothing repent me that I have deviſed no pretier Title for my Booke than plaine *Naturalis Hiſtoria*, *i.* The reports of Nature, vvithout more ceremonie, yet becauſe I vvould not be thought altogither to courſe and rate the Greeks, I can be content, nay I am vvilling to bee thought in this behalfe like unto thoſe excellent grand-maſters in Greece for Painting and Imagerie, vvhome you ſhall find in theſe Reports of mine, to have entituled thoſe rare and abſolute peeces of vvorke (vvhich the more vve vievv and looke upon, the more vvee admire and vvonder

* To wit, *Helius Meliſſius.*

* Containing all things, as *Tyro Tullius* did.

*A manuell to be carried alwaies in hand.

* Medow.

* A Table or Index.

vvonder at for their perfection) vvith halfe titles and unperfect inscriptions, in this manner, *Apelles* * *went in hand with this Picture:* or, *Polycletus was a making this Image:* as if they were but begun, never finished and laid out of their hands: vvhich vvas done (no doubt) to this end, that for all the varietie and diversitie of mens iudgements scanning of their vvorkemanship, yet the artificer thereby had recourse to make excuse; had means (I say) to crave and have pardon for any faults and imperfections that could be found, as if he meant to have amended any thing therein amisse or vvanting, in case hee had not been cut off and prevented by death. These noble vvorkemen therfore herein shevved right great modestie, that they set superscriptions upon all their painted tables, pourtraitures, and personages, as if they had been the last peeces of their vvorkmanship, and themselves disabled by unexpected death that they could not make a finall end of any one of them: for there vvere not knovvne (as I take it) above three in all, which had their absolute titles vvritten upon them in this forme, *Ille fecit*, *i.* This *Apelles* vvrought: & those Pictures vvill I vvrite of in place convenient. By vvhich it appeared evidently, that the said three tables vvere fully finished, and that the vvorkeman was so highly contented with their perfection, that he feared the censure of no man: No marveile then, if all three were so much envied and admired throughout the world, no marveile if everie man desired to be master of them.

* *Apelles faciebat.*

Novv for my selfe, I know full vvell & confesse freely, that many more things may be added, not to this storie alone, but to all my books that I have put forth alreadie: which I speake by the vvay, because I vvould prevent and avoid those fault-finders abroad, those correctors and * scourgers of *Homer*, (for surely that is their verie name) because I heare say there be certain Stoike Philosophers, professed Logicians, yea and Epicureans also (for at Grammarians hands and Criticks I never looked for other) who are vvith child still and travaile untill they be delivered of somewhat against my books which I have set forth as touching Grammer: and for this ten yeers space, nothing is come to light, but evermore the fruit miscarrieth belike before the full time, as the slip of an unperfect birth; whereas in lesse space than so, the verie Elephant bringeth foorth her calfe, be it never so big. But this troubleth me never a whit, for I am not ignorant that a silly vvoman, even a harlot and no better, durst encounter *Theophrastus* and vvrite a booke against him, notwithstanding hee vvas a man of so incomparable eloquence that thereupon he came by his divine name *Theophrastus*: from vvhence arose this proverbe and by-word, * Marie then go chuse a tree to hang thy selfe. And surely I cannot containe and hold my tongue, but I must needs set downe the verie vvords of *Cato Censorius*, so pertinent to this purpose; vvhereby it may appeare, that even *Cato* himselfe a most worthie personage, vvho vvrote of militarie Discipline, vvho had been brought up and trained to feats of vvarre under Great *Scipio Africanus*, or rather indeed under *Annibal*, vvho in the end could not endure *Africanus* himselfe, but was able to controll him in martiall affaires: and vvho besides having the conduct as L. Generall of the Romane armie, atchieved the better hand over his enemies in the field, and returned vvith victory; this *Cato* (I say) could not avoid such backbiters and slaunderers, but knowing that there vvould bee many of them readie to purchase themselves some name and reputation by reproving the knovvledge and skill of others, brake out into a cer-

* *Homeromastiges.*

* If women may be allowed to controll mes writings, we may be wearie of our lives and goe hāg our selves well enough.

a certain ſpeech againſt them: And vvhat vvas it? I knovv right vvell (quoth he, in that booke aforeſaid) that if theſe vvritings of mine come abroad once and be publiſhed to the vievv of the vvorld, there vvill be many ſtep foorth to quarrell and cavill thervvith; ſuch fellovvs ſooneſt and moſt of all who are quite void of vertue and honeſtie, and knovv not vvhat belongeth to true honour. But ſurely ſay vvhat they vvill, I let their vvords run by, like raine vvater. It vvas a prettie ſpeech alſo and a pleaſant apothegme, that *Plancus* uttered in the ſemblable caſe: for beeing informed that *Aſinius Pollio* vvas deviſing and framing certaine invective Orations againſt him, vvhich ſhould be ſet foorth either by himſelfe or his children, after the deceaſe of *Plancus* and not before, to the end that they might not be anſvvered by him; hee ſaid readily by vvay of a ſcoffe, That none but vaine bugs & hobgoblins uſe to fight vvith the dead: vvith vvhich vvord he gave thoſe orations ſuch a counterbuffe, that (by the iudgement of the learned) none vvere accounted aftervvard more impudent and ſhameleſſe than they. For mine ovvn part, being ſure that theſe buſie bodies ſhall never be able to bite me (and verely *Cato* hath given ſuch fellovvs a proper name, and called them *Virilitigatores*, by a tearme elegantly compounded of vices and quarrels: for to ſay a truth, what did they elſe but picke quarels and make brawls?) I vvill proceed and goe on ſtill in my intended purpoſe.

Now to conclude and knit up mine Epiſtle: Knovving as I doe, that for the good of the Commonweale, you ſhould be ſpared and not empeached by any privat buſineſſe of your owne, and namely in peruſing theſe long volumes of mine; to prevent this trouble therefore, I have adioyned immediatly to this Epiſtle and prefixed before theſe books, the Summarie or Contents of everie one: and verie carefully have I endeavoured, that you ſhould not need to read them throughout, vvhereby all others alſo after your example, may eaſe themſelves of the like labour: and as any man is deſirous to know this or that, he may ſeeke and readily find in vvhat place to meet vvith the ſame. This learned Iof *Valerius Sorranus* one of our ovvne Latin vvriters, vvho hath done the like before me and ſet an Index to thoſe Books which he entituled Επανορθωσις

THE INVENTORIE OR INDEX,

CONTAINING THE CONTENTS OF XXXVII BOOKES, TOVCHING THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS, WHICH IS RECEIVED FOR THE FIRST BOOKE OF THEM.

¶ The Summarie of every Booke.

THe firſt Booke containeth the Dedicatorie Epiſtle or Preface of the vvhole vvorke, addreſſed to *Titus Veſpaſian* the Emperour. Alſo the names of the Authors out of vvhich he gathered the Hiſtorie, vvhich he proſecuteth in 36 Bookes: togither vvith the Summarie of every Chapter: & beginneth, *The Books, &c.*

The ſecond, treateth of the World, Elements, and Starres: and beginneth thus, *The world, &c.*

The third, deſcribeth the firſt and ſecond gulfe, which the Mediterranean ſea maketh in Europe: and beginneth in this manner, *Hitherto, &c.*

The fourth, compriſeth the third gulfe of Europe, beginning, *The third, &c.*

The fift, containeth the deſcription of Affrick, and beginneth thus, *Africk, &c.*

The ſixt, handleth the Coſmographie of Aſia, beginning thus, *The ſea called, &c.*

The ſeventh treateth of man, and his inventions, beginning, *Thus as you ſee, &c.*

The eight ſheweth unto us, land creatures, and their kinds, and beginneth after this manner, *Paſſe we now, &c.*

The ninth, laieth before us all fiſhes, and creatures of the water, beginning in this wiſe, *I have thus ſhewed, &c.*

The tenth ſpeakes of flying fouls and birds, and beginneth thus, *It followeth, &c.*

The eleventh telleth us of Inſects, and beginneth thus, *It remaineth now, &c.*

The twelfth treateth of drugs & odoriferous plants, beginning, *Thus you, &c.*

The thirteenth deſcribeth ſtraunge and forreine trees: beginning with theſe words, *Thus far forth, &c.*

The fourteenth ſheweth of vine-plants, &c. beginning thus, *Thus far forth, &c.*

The fifteenth comprehendeth all fruitfull trees, thus beginning, *There were, &c.*

The ſixteenth deſcribeth unto us all wild trees, beginning with, *Hitherto, &c.*

The ſeventeenth containeth tame trees within hortyards, and beginneth with theſe words, *As touching the nature, &c.*

The eighteenth booke treateth of the nature of corne, and all ſorts thereof, togither with the profeſsion of husbandmen, and agriculture, beginning after this manner, *Now followeth, &c.*

The nineteenth diſcourſeth of Flax, Spart, and Gardenage, beginning after this manner, *In the former booke, &c.*

The twentith ſheweth of garden herbs, good to ſerve both the kitchin for meat, and the Apothecaries ſhop for medicine, & beginneth thus, *Now will we, &c.*

The one and twentie treateth of flours & garlands, and beginneth, *In Cato, &c.*

The two and twentie containeth the chaplets and medecines made of hearbs, with this beginning, *Such is the perfection, &c.*

The three and twentie ſheweth the medicinable vertues of wine, and tame trees growing in hortyards, beginning thus, *Thus have we, &c.*

The foure and twentie declareth the properties of wild trees ſerving in phyſick, beginning thus, *Nature, &c.*

The five and twentie treateth of the hearbs in the field comming up of their owne accord, and thus beginneth, *The excellencie, &c.*

The ſix and twentie ſheweth of many nevv and ſtraunge maladies, the medicinable vertues alſo of certaine hearbs, according to ſundrie diſeaſes, beginning thus, *The verie face, &c.*

The ſeven and twentie goeth forvvard to certaine other hearbs and their medecines, and thus beginneth, *Certes, &c.*

The eight and twentie ſetteth downe certaine receits of remedies in phyſicke, drawne from out of man and other bigger creatures, and it beginneth in this manner, *Heretofore, &c.*

The nine and tvventie treateth of the firſt authours and inventors of Phyſicke, alſo of medecines taken from other creatures, & beginneth, *The nature, &c.*

The thirtith booke ſpeaketh of Magicke, and certaine medecines appropriat to the parts and members of mans bodie, beginning thus, *The vanitie, &c.*

The one and thirtie containeth the medicinable vertues of fiſhes & vvater creatures, vvith this beginning, *Now follow, &c.*

The tvvo and thirtie ſhevveth other properties of fiſhes, &c. and beginneth in this manner, *Now are we come, &c.*

The three and thirtie treateth of gold and ſilver mines, and hath this beginning, *Time it is, &c.*

The foure and thirtie ſpeaketh of copper and braſſe mines, alſo of lead, alſo of excellent braſſe-founders and vvorkemen in copper, beginning after this manner, *In the next place, &c.*

The five and thirtie diſcourſeth of painting, colour, and painters, beginning in this ſort, *The diſcourſe, &c.*

The ſix and thirtie treateth of marble and ſtone for building, and hath this beginning, *It remaineth, &c.*

The ſeven and thirtie concludeth vvith pretious ſtones, and beginneth at theſe vvords, *To the end that, &c.*

¶ IN THE SECOND BOOKE IS CONTAINED the diſcourſe of the World, of cœleſtiall impreſsions and meteors, *as alſo of them that appeare in the Aire, and upon Earth.*

Chap.

1. Whether the World bee finite and limited within certaine dimenſions or no? whether there be many, or but one?
2. The forme and figure of Heaven and the World.
3. The motion of heaven.
4. Why the world is called Mundus?
5. Of the Elements.
6. Of the ſeven Planets.
7. Concerning God.
8. The nature of the fixed ſtarres and planets: their courſe and revolution.
9. The nature of the Moone.
10. The eclipſe of Sun and Moone: alſo of the night.
11. The bigneſſe of ſtarrs.
12. Divers inventions of men and their obſervations touching the cœleſtiall bodies.
13. Of Eclipſes.
14. The motion of the Moone.
15. Generall rules or canons touching planets or lights.
16. The reaſon why the ſame planets ſeeme higher or lower at ſundrie times.
17. Generall rules concerning the planets or wandring ſtars.
18. What is the cauſe that planets chaunge their colours?
19. The courſe of the Sun: his motion: and from whence proceedeth the inequalitie of daies.
20. Why lightnings be aſſigned to *Iupiter*.
21. The diſtances betweene the planets.
22. The harmonie of ſtars and planets.
23. The geometrie and dimenſions of the world.
24. Of ſtars appearing ſodainly.
25. Of comets or blaſing ſtars, and other prodigious appearanees in the skie: their nature, ſituation, and ſundrie kinds.
26. The opinion of *Hipparchus* the Phioſopher as touching the ſtars, fire-lights, lamps, pillars or beams of fire, burning darts, gapings of the skie, and other ſuch impreſſions, by way of example.
27. Straunge colours appearing in the firmament.
28. Flames and leams ſeen in the skie.
29. Circles or guirlands ſhewing above.
30. Of cœleſtiall circles & guirlands that continue not, but ſoone paſſe.
31. Of many Suns.
32. Of many Moons.
33. Of nights as light as day.
34. Of meteors reſembling fierie targuets.
35. A ſtraunge and woonderfull apparition in the skie.
36. The extraordinarie ſhooting and motion of ſtars.
37. Of the ſtars named Caſtor and Pollux.
38. Of the Aire.
39. Of certaine ſet times and ſeaſons.
40. The power of the Dog-ſtar.
41. The ſundrie influences of ſtars according to the ſeaſons and degrees of the ſigns.
42. The cauſes of raine, wind, and clowds.
43. Of thunder and lightning.
44. Whereupon commeth the redoubling of the voice, called Echo.
45. Of winds againe.
46. Divers conſiderations obſerved in the nature of winds.
47. Many ſorts of winds.
48. Of ſodaine blaſts and whirle-puffs.
49. Other ſtrange kinds of tempeſts & ſtorms.
50. In what regions there fall thunderbolts.
51. Divers ſorts of lightnings, and wonderous accidents by them occaſioned.
52. The obſervations [of the Tuſcanes in old time] as touching lightning.
53. Conjuring for to raiſe lightning.
54. Generall rules concerning leames and flaſhes of lightning.
55. What things be exempt and ſecured from lightning and thunderbolts.
56. Of monſtrous and prodigious ſhowres of raine,

Chap.
raine, namely of milke, bloud, flesh, yron, wooll, bricke, and tyle.
57. The rattling of harnesse and armour: the sound also of trumpets heard from heaven.
58. Of stones falling from heaven.
59. Of the Rainbow.
60. Of Haile, Snow, Frost, Mists, and Dew.
61. Of divers formes and shapes represented in clowds.
62. The particular properties of the skie in certaine places.
63. The nature of the Earth.
64. The forme and figure of the earth.
65. Of the Antipodes: and whether there bee any such. Also, as touching the roundnesse of the water.
66. How the water resteth upon the earth.
67. Of Seas and rivers navigable.
68. What parts of the earth be habitable.
69. That the earth is in the mids of the world.
70. From whence proceedeth the inequalitie observed in the rising and elevation of the stars. Of the eclipse: where it is, & wherfore.
71. The reason of the day-light upon earth.
72. A discourse thereof according to the Gnomon: also of the first Sun-dyall.
73. In what places and at what times there are no shadows cast.
74. Where the shadows fall opposite and contrarie twice in the yeere.
75. Where the dayes bee longest, and where shortest.
76. Likewise of Dyals and Quadrants.
77. The divers observations and acceptations of the day.
78. The diversities of regions, and the reason thereof.
79. Of Earthquake.
80. Of the chinks and opening of the earth.
81. Signes of earthquake toward.
82. Remedies and helps against earthquakes comming.
83. Straunge and prodigious woonders seene one time in the earth.
84. Miraculous accidents as touching earthquake.

Chap.
85. In what parts the seas went backe.
86. Islands appearing new out of the sea.
87. What Islands have thus shewed, and at what times.
88. Into what lands the seas have broken perforce.
89. What Islands have ben joyned to the continent.
90. What lands have perished by water and become all sea.
91. Of lands that have settled and beene swallowed up of themselves.
92. What citties have beene overflowed and drowned by the sea.
93. Woonderfull straunge things as touching some lands.
94. Of certaine lands that alwaies suffer earthquake.
95. Of Islands that flote continually.
96. In what countries of the world it never raineth: also of many miracles as well of the earth as other elements hudled up pell mell togither.
97. The reason of the Sea-tides, as well ebbing as flowing, and where the sea floweth extraordinarily.
98. Wonderfull things observed in the Sea.
99. The power of the Moone over Sea and land.
100. The power of the Sun: and the reason why the sea is salt.
101. Moreover, as touching the nature of the Moone.
102. Where the sea is deepest.
103. Admirable observations in fresh waters, as well of fountains as rivers.
104. Admirable things as touching fire and water joyntly togither: also of Maltha.
105. Of Naphtha.
106. Of certaine places that burne continually.
107. Wonders of fire alone.
108. The dimension of the earth as well in length as in breadth.
109. The harmonicall circuit & circumference of the world.

In sum, there are in this booke of histories, notable matters, and worthie observations, foure hundred and eighteene in number.

Latine Authors alledged in this booke.

M. Varro, Sulpitius Gallus, Tiberius Cæsar Emperour, Q. Tubero, Tullius Tiro, L. Piso, T. Livius, Cornelius Nepos, Statius, Sebosus, Cæsius Antipater, Fabianus, Antias, Mutianus, Cecina, (who wrote of the Tuscan learning) Tarquitius, L. Aquila, and Sergius Paulus.

Forreine

Forreine Authours cited.

Plato, Hipparchus, Timæus, Soſigenes, Petoſiris, Necepſus, the Pythagoreans, Poſidonius, Anaximander, Epigenes, Gnomonicus, Euclides, Ceranus the Philoſopher, Eudoxus, Democritus, Criſodemus, Thraſillus, Serapion, Dicæarchus, Archimedes, Oneſicritus, Eratoſthenes, Pytheas, Herodotus, Ariſtotle, Cteſias, Artemidorus the Epheſian, Iſidorus Characenus, and Theopompus.

¶ IN THE THIRD BOOKE ARE COMPREHENded the regions, nations, ſeas, towns, havens, mountains, rivers, with their meaſures, and people, either at this day knowne or in times *paſt, as followeth.*

Chap.
1. Of Europe.
2. The length and breadth of Bœtica, a part of Spaine, containing Andaluſia, and the realme of Grenado.
3. That hither part of Spaine, called of the Romans Hiſpania Citerior.
4. The province Narbonenſis, wherein is Dauphine, Languedoc, and Provance.
5. Italie, Tiberis, Rome, and Campaine.
6. The Iſland Corſica.
7. Sardinia.
8. Sicilie.
9. Lipara.
10. Of Locri, and the frontiers of Italie.
11. The ſecond gulfe of Europe.
12. The fourth region of Italie.

Chap.
13. The fifth region.
14. The ſixth region.
15. The eigth region.
16. Of the river Po.
17. Of Italie beyond the Po, counted the eleventh region.
18. Venice, the tenth region.
19. Of Iſtria.
20. Of the Alps, and the nations there inhabiting.
21. Illyricum.
22. Liburnia.
23. Macedonie.
24. Noricum.
25. Pannonie and Dalmatia.
26. Mœſia.

In this booke are deſcribed 26 Iſlands within the Adriaticke and Ionian ſeas: their principall citties, towns and nations. Alſo the chiefe and famous rivers: the higheſt hills: ſpeciall Iſlands beſides: towns and countries that be periſhed. In ſum, here are compriſed notable things, hiſtories, matters memorable, and obſervations to the number of 326.

Latine Writers brought in for teſtimonie.

Turannius Graccula, Cor. Nepos, T. Livius, Cato Cenſorius, M. Agrippa, M. Varro, Divus Auguſtus the Emperour, Varro Attacinus, Antias, Hyginus, L. Vetus, Mela Pomponius, Curio the father, Cœlius Aruntius, Seboſus, Licinius Mutianus, Fabricius Thuſcus, L. Atteius Capito, Verrius Flaccus, L. Piſo, C. Ælianus, and Valerianus.

Forreine Authours.

Artemidorus, Alexander Polyhiſtor, Thucydides, Theophraſtus, Iſidorus, Theopompus, Metrodorus Scepſius, Callicrates, Xenophon, Lampſacenus, Diodorus Syracuſanus, Nymphodorus, Calliphanes, and Timagenes.

¶ IN THE FOVRTH BOOKE ARE COMPRISED regions, nations, ſeas, townes, hills, havens, rivers, with their dimenſions *and people, either now or in times paſt knowne: viz.*

Chap.
1. Epirus.
2. Ætolia.
3. Locri.

Chap.
4. Peloponneſus.
5. Achaia.
6. Arcadia.

Chap.
7. Greece, and Attica.
8. Theſſalie.
9. Magneſia.
10. Macedonia.
11. Thracia.
12. The Iſlands lying between thoſe countries: among which, Creta, Eubœa, the Cyclads, Sporades: alſo the Iſles within Helleſpont neare the ſea Pontus, within Mœotis, Dacia, Sarmatia, and Scythia.
13. The Iſlands of Pontus, called Mer Major.
14. The Iſlands of Germanie.
15. Iſlands in the French Ocean.
16. Britaine and Ireland.
17. Gaule or Fraunce.
18. Of Gallia Lugdunenſis.
19. Of Aquitaine.
20. Of high Spaine, named Citerior.
21. Of Portugall.
22. Iſlands in the Ocean.
23. The dimenſion and meaſure of all Europe.

Herein are contained many principall townes and countries, famous rivers; Iſlands alſo, beſides cities or nations that be periſhed: in ſum, divers things, hiſtories, and obſervations.

Latine Authours cited.

M. Varro, Cato Cenſorius, M. Agrippa, Divus Auguſtus, Varro Atacinus, Cor. Nepos, Hyginus, L. Vetus, Pomponius Mela, Licinius Mutianus, Fabricius Thuſcus, Atteius Capito, and Atteius Philologus.

Of forreine Writers.

Polybius, Hecataeus, Hellanicus, Damaſtes, Eudoxus, Dicæarchus, Timoſthenes, Ephorus, Crater, Grammaticus, Serapion of Antioch, Callimachus, Artemidorus, Apollodorus, Agathocles, Eumachus Siculus the muſician, Alexander Polyhiſtor, Thucydides, Doſiades, Anaximander, Philiſtides, Mallotes, Dionyſius, Ariſtides, Callidemus, Menæchmus, Ædaſthenes, Anticlides, Heraclides, Philemon, Menephon, Pythias, Iſidorus, Philonides, Xenagoras, Aſtyonomus, Staphylus, Ariſtocritus, Metrodorus, Cleobulus, and Poſidonius.

IN THE FIFTH BOOKE ARE CONTAINED

Regions, Nations, Seas, Towns, Hills, Rivers, with their meaſures, and people, either at this day beeing, or in times *paſt: that is to ſay,*

Chap.
1. Mauritania.
2. The province Tingitana.
3. Numidia.
4. Affricke.
5. Cyrene.
6. Lybia Maræotis.
7. Iſlands lying about Affricke, & over-againſt Affricke.
8. The Æthiopians.
9. Aſia.
10. Alexandria.
11. Arabia.
12. Syria, Palæſtina, Phœnice.
13. Idumæa, Syria, Palæſtina, Samaria.
14. Iudæa, Galilea.
15. Iordan the river.
16. The lake Aſphaltites.
17. The Eſſenes.
18. The countrey Decapolis.
19. Tyrus and Sidon.
20. The mount Libanus.
21. Syria Antiochena.
22. The mountaine Caſius.
23. Cœle-Syria.
24. The river Euphrates.
25. The region Palmyra.
26. Hierapolis the countrey.
27. Cilicia and the nations adjoyning: Pamphilia, Iſauria, Homonades, Piſidia, Lycaonia, the mountaine Taurus, and Lycia.
28. The river Indus.
29. Laodicea, Apamia, Ionia, and Epheſus.
30. Æolis, Troas, Pergamus.
31. Iſlands affront Aſia, the Pamphylian Sea, Rhodus, Samus, and Chius.
32. Helleſpont, Myſia, Phrygia, Galatia, Nicea, Bithynia, Boſphorus.

Herein

Plinies Naturall Hiſtorie.

Herein you find townes and nations, Principall Rivers, Famous Hils, Iſlands, 117. Townes alſo that are loſt and periſhed. In ſumme, many things, hyſtories and obſervations memorable.

Latine Authors alleadged.

Agrippa, Suetonius Paulinus, Varro Atacinus, Cornelius Nepos, Hyginus, L. Vetus, Mela, Domitius Corbulo, Licinius Mutianus, Claudius Cæſar, Aruntius, Livius the ſonne, *Seboſus*, the Acts and records of the Triumphs.

Forraine writers.

King *Iuba, Hecataus, Hellanicus, Damaſtes, Dicaarchus, Bion, Timoſthenes, Philonides, Xenagoras, Aſtynomus, Staphylus, Ariſtotle, Dionyſius, Ariſtocritus, Ephorus, Eratoſthenes, Hipparchus, Panætius, Serapion Antiochenus, Callimachus, Agathocles, Polybius, Timæus the Mathematician, Herodotus, Myrſilus, Alexander Polyhiſtor, Metrodorus, Poſidonius who wrate Periplus or Periegeſis, Sotades, Periander, Ariſtarchus Sicyonius, Eudoxus, Antigenes, Callicrates, Xenophon Lampſacenus, Diodorus Syracuſanus, Hanno, Himilco, Nymphodorus, Calliphon, Artemidorus, Megaſthenes, Iſidorus, Cleobulus, Ariſtocreon.*

IN THE SIXTH BOOKE ARE CONTAINED

Regions, Nations, Seas, Citties, Havens, Rivers, with their di-*menſions, People alſo that be or have been, to wit:*

Chap.

1. The ſea called Pontus Euxinus, beſoretime Axenus.
2. The nations of the Paphlagones and Cappadocians.
3. Cappadocia.
4. The nations of the countrey Themiſcyra.
5. The region Colchica. The Achæi, and the reſt in that tract.
6. Boſphorus Cimmerius, and Mœotis.
7. The people about Mœotis.
8. The Armeniæ both.
9. Armenia the greater.
10. Albania, Iberia.
11. The ſcluſes and gates Caucaſiæ.
12. Iſlands in Pontus.
13. Nations about the Scythian Ocean.
14. Media and the gates or ſtreights Caſpiæ.
15. Nations about the Hircane ſea.
16. Alſo other nations confining upon that countrey.
17. People of Scythia.
18. The river Ganges.
19. The nations of India.

Chap.

20. The river Indus.
21. The Arians, and the nations bordering upon them.
22. The Iſland Taprobane.
23. Capiſſene, Carmænia.
24. The Perſian and Arabian gulfes.
25. The Iſland Caſſandrus, and kingdomes of the Parthians.
26. Media, Meſopotamia, Babylon, Seleucia.
27. The river Tigris.
28. Arabia, Nomades, Nabathæi, Omani, Tylos and Ogyris two Iſlands.
29. The goulfes of the red ſea, the Troglodite and Æthyopian ſeas.
30. Divers nations of ſtraunge and wonderfull ſhapes.
31. Iſlands of the Æthyopian ſea.
32. Of the fortunat Iſlands.
33. The diviſion of the earth calculated by meaſures.
34. A diviſion of the earth by climates, lines parallele, and equall ſhaddowes.

Townes of name. 195. Nations of account. 566. Famous rivers. 180. Notable hils. 38. Principall Iſlands. 108. Cities and nations periſhed. 195. In ſumme, there are rehearſed in this booke of other things, hiſtories and obſervations. 2214.

Latine Authors alleadged.

M. Agrippa, Varro Atacinus, Cornelius Nepos, Hyginus, Lu. Vetus, Mela Pomponius, Domitius Corbulo, Licinius Mutianus, Claudius Cæſar, Aruntius Seboſus, Fabricius Thuſcus, T. Livius, Seneca, Nigidius.

Forraine

The first Booke of

Forraine Writers.

King Iuba, Polybius, Hecatæus, Hellanicus, Damastes, Eudoxus, Dicæarchus, Beto, Timosthenes, Patrocles, Demodamas, Clitarchus, Eratosthenes, Alexander Magnus, Ephorus, Hipparchus, Panætius, Callimachus, Artemidorus, Apollodorus, Agathocles, Polybius, Eumachus Siculus, Alexander Polyhistor, Amometus, Metrodorus, Posidonius, Onesicritus, Nearchus, Megasthenes, Diognetus, Aristocreon, Bion, Dialdon, Simonides the younger, *Basiles*, and *Xenophon Lampsacenus*.

IN THE SEVENTH BOOKE ARE CONTAINED the woonderfull shapes of men in *diverse countries*.

Chap.

1. The strange formes of many nations.
2. Of the Scythians, and other people of diverse countries.
3. Of monstrous and prodigious births.
4. The transmutation of one sex into another. Also of twins.
5. Of the generation of man. The time of a womans childbearing, from seven moneths to eleven, proved by notable examples out of hystories.
6. Of conceptions, and children within the wombe. The signes how to know whether a woman goe with a sonne or a daughter, before she is delivered.
7. Of the conception and generation of man.
8. Of Agrippæ, *i.* those who are borne with the feet forward.
9. Of straunge births, namely, by means of incision, when children are cut out of their mothers wombe.
10. Of Vopisci, *i.* such as being twins were born alive, notwithstanding the one of them was dead before.
11. Hystories of many children borne at one burden.
12. Examples of those that were like one to another.
13. The cause and manner of generation.
14. More of the same matter and argument.
15. Of womens monthly tearmes.
16. The manner of sundrie births.
17. The proportion of the parts of mans body and notable things therein observed.
18. Examples of extraordinarie shapes.
19. Straunge natures of men.
20. Of bodily strength and swiftnesse.
21. Of excellent sight.
22. Who excelled in hearing.
23. Examples of patience.
24. Who were singular for good memorie.
25. The praise of *C. Iulius Cæsar*.

Chap.

26. The commendation of *Pompey* the Great.
27. The praise of *Cato*, the first of that name.
28. Of valour and fortitude.
29. Of notable wits, or the praises of some for their singular wit.
30. Of *Plato*, *Ennius*, *Virgill*, *M. Varro*, and *M. Cicero*.
31. Of such as carried a majestie in their behaviour.
32. Of men of great authoritie and reputation.
33. Of certaine divine and heavenly persons.
34. Of *Scipio Nasica*.
35. Of Chastitie.
36. Of Pietie, and naturall kindnesse.
37. Of excellent men in diverse sciences, and namely, in Astrologie, Grammer, and Geometrie, &c.
38. *Item*, Rare peeces of worke made by sundry artificers.
39. Of servants and slaves.
40. The excellencie of diverse nations.
41. Of perfect contentment and felicitie.
42. Examples of the variety and mutabilitie of fortune.
43. Of those that were twice outlawed and banished: of *L. Sylla* and *Q. Metellus*.
44. Of another *Metellus*.
45. Of the Emperour *Augustus*.
46. Of men deemed most happie above all others by the Oracles of the gods.
47. Who was cannonized a god whiles hee lived upon the earth.
48. Of those that lived longer than others.
49. Of diverse nativities of men.
50. Many examples of straunge accidents in maladies.
51. Of the signes of death.
52. Of those that revived when they were caried forth to be buried.
53. Of suddaine death.
54. Of sepulchres and burials.

55. Of

Chap.
55. Of the ſoule: of ghoſts and ſpirits.
56. The firſt inventors of many things.
57. Wherein all nations firſt agreed.
58. Of antique letters.
59. The beginning of Barbars firſt at Rome.
60. The firſt deviſers of Dials and Clockes.

In ſumme, there be in this booke of ſtories ſtraunge accidents and matters memorable 747.

Latine Authors alledged.

Verrius Flaccus, Cn. Gellius, Licinius Mutianus, Mutius, Maſſurius, Agrippina wife of Claudius, M. Cicero, Aſinius Pollio, Meßala, Rufus, Cornelius Nepos, Virgil, Livie, Cordus, Meliſſus, Seboſus, Cornelius Celſus, Maximus Valerius, Trogus, Nigidius Figulus, Pomponius Atticus, Pedianus Aſconius, Sabinus, Cato Cenſorius, Fabius Veſtalis.

Forraine Writers.

Herodotus, Ariſteas, Beto, Iſigonus, Crates, Agatharcides, Calliphanes, Ariſtotle, Nymphodorus, Apollonides, Philarchus, Damon, Megaſthenes, Cteſias, Tauron, Eudoxus, Oneſicratus, Clitarchus, Duris, Artemidorus, Hippocrates the Phyſician, Aſclepiander the Phyſician, Heſiodus, Anacreon, Theopompus, Hellanicus, Damaſthes, Ephorus, Epigenes, Beroſus, Peſsiris, Necepſus, Alexander Polyhiſtor, Xenophon, Callimachus, Democritus, Duillius, Polyhiſtor the Hiſtorian, Strato who wrate againſt the Propoſitions and Theoremes of Ephorus, Heraclides Ponticus, Aſclepiades who wrote Tragodamena, Philoſtephanus, Hegeſias, Archimachus, Thucydides, Mneſigiton, Xenagoras, Metrodorus Scepſius, Antiſthides, and Critodemus.

¶ IN THE EIGTH BOOKE ARE CONtained the natures of land beaſts *that goe on foot.*

Chap.
1. Of land creatures: The good and commendable parts in Elephants: their capacitie and underſtanding.
2. When Elephants were firſt yoked and put to draw.
3. The docilitie of Elephants, and their aptneſſe to learne.
4. The clemency of Elephants: that they know their owne daungers. Alſo of the felneſſe of the Tigre.
5. The perceivance and memory of Elephants.
6. When Elephants were firſt ſeene in Italie.
7. The combats performed by Elephants.
8. The manner of taking Elephants.
9. The manner how Elephants be tamed.
10. How long an Elephant goeth with young, and of their nature.
11. The countries where Elephants breed: the diſcord and warre betweene Elephants and Dragons.
12. The induſtrie & ſubtill wit of Dragons and Elephants.
13. Of Dragons.
14. Serpents of prodigious bigneſſe: of Serpents named Boæ.
15. Of beaſts engendered in Scythia, and the North countries.
16. Of Lions.
17. Of Panthers.
18. The nature of the Tygre: of Camels, and the Pard-Cammell: when it was firſt ſeene at Rome.
19. Of the Stag-Wolfe named Chaus: and the Cephus.
20. Of Rhinoceros.
21. Of Onces, Marmoſets called Sphinges, of the Crocutes, of common Marmoſets, of Indian Bœufes, of Leucrocutes, of Eale, of the Æthyopian Bulls, of the beaſt Mantichora, of the Licorne or Vnicorne, of the Catoblepa, and the Baſiliske.
22. Of Wolves.
23. Of Serpents.
24. Of the rat of India called Ichneumon.
25. Of the Crocodile, the Skinke, and the River-horſe.
26. Who ſhewed firſt at Rome the Water-horſe and the Crocodiles. Diverſe reaſons in Phyſicke found out by dumbe creatures.
27. Of beaſts and other ſuch creatures which have taught us certaine hearbes, to wit, the red Deere, Lizards, Swallowes, Tortoiſes, the

Chap.
the Weasell, the Stork, the Bore, the Snake, the Panther, the Elephant, Beares, Stocke-Doves, House-Doves, Cranes, and Ravens.
28. Prognostications of things to come, taken from beasts.
29. What cities and nations have ben destroied by small creatures.
30. Of the Hiæna, the Crocuta and Mantichora: of Bievers and Otters.
31. Of Frogs, Sea or sea-Calves, and Stellions.
32. Of Deere both red and fallow.
33. Of the Tragelaphis: of the Chamæleon, and other beasts that chaunge colour.
34. Of the Tarand, the Lycaon, and the Wolfe called Thoes.
35. Of the Porc-espines.
36. Of Beares, and how they bring forth their whelpes.
37. The rats and mice of Pontus and the Alps: also of Hedgehogs.
38. Of the Leontophones, the Onces, Graies,

Chap.
Badgers, and Squirrels.
39. Of Vipers, Snailes in shels, and Lizards.
40. Of Dogs.
41. Against the biting of a mad dog.
42. The nature of Horses.
43. Of Asses.
44. Of Mules.
45. Of Kine, Buls, and Oxen.
46. Of the Bœuse named Apis.
47. The nature of sheepe, their breeding and generation.
48. Sundrie kinds of wooll and cloths.
49. Of sheepe called Musmones.
50. Of Goats and their generation.
51. Of Swine and their nature.
52. Of Parkes and Warrens for beasts.
53. Of beasts halfe tame and wild.
54. Of Apes and Monkies.
55. Of Hares and Connies.
56. Of beasts halfe savage.
57. Of Rats and mice: of Dormice.
58. Of beasts that live not in some places.
59. Of beasts hurtfull to straungers.

In summe, there be in this Booke principall matters, stories, and obseruations worth the remembrance 788.

Latine Authors alleadged.

Mutianus, Procilius, Verrius Flaccus, L. Piso, Cornelius Valerianus, Cato Censorius, Fenestella, Trogus, Actius, Columella, Virgil, Varro, Lu. Metellus Scipio, Cornelius Celsus, Nigidius, Trebius Niger, Pomponius Mela, Manlius Sura.

Forraine writers.

King Iuba, Polybius, Onesicritus, Isidorus, Antipater, Aristotle, Demetrius the naturall Philosopher, Democritus, Theophrastus, Euanthes, Agrippa who wrote of the Olympionicæ, Hiero, king Attalus, king Philometer, Ctesias, Duris, Philistus, Architas, Philarchus, Amphilochus the Athenian, Anaxipolis the Thasian, Apollodorus of Lemnos, Aristophanes the Milesian, Antigonus the Cymæan, Agathocles of Chios, Apollonicus of Pergamus, Aristander of Athens, Bacchus the Milesian, Bion of Soli, Chæreas the Athenian, Diodorus of Pyreæum, Dio the Colophonian, Epigenes of Rhodes, Evagon of Thassus, Euphranius the Athenian, Hegesias of Maronea, Menander of Pyreæum, Menander also of Heraclea, Menecrates the Poet, Androcion who wrote of Agriculture or Husbandrie, Aeschrion who likewise wrote of that argument, Dionysius who translated Mago, Diophanes who collected an Epitome or Breviarie out of Dionysius, king Archelaus, and Nicander.

IN THE NINTH BOOKE ARE CONTAINED the stories and natures of Fishes *and water-creatures.*

Chap.
1. The nature of water-creatures.
2. The reason why the creatures of the sea are of all other biggest.
3. The monstrous beasts of the Indian sea.

Chap.
4. The greatest fishes and beasts in everie part of the Ocean.
5. Of Tritones, Nereides, and sea Elephants: their shapes and formes.

6. Of

Chap.
6. Of great Whales, called Balænæ and Orcæ.
7. Whether fiſhes doe take and deliver their breath? whether they ſleepe or no?
8. Of Dolphins and their wonderfull properties.
9. Of the Turſiones.
10. Of the ſea Tortoiſes, and how they bee taken.
11. Who firſt deviſed to ſlive the Tortoiſe ſhels into leaves.
12. The skins and ſhels of the ſea creatures: the diviſion of them into their ſeverall kinds.
13. Of the Seale or ſea Calfe.
14. Of fiſhes ſmooth and without haire: how they ſpawn and breed: and how many ſorts there be of them.
15. The names and natures of many fiſhes.
16. The preſages by fiſhes, and their varietie.
17. Of the Mullet & other fiſhes. That the ſame fiſhes are not in requeſt in all places.
18. Of the Barble, the ſea Raven Coracinus: of Stockfiſh and Salmon.
19. Of the Exœcetus, Calamaries, Lampreies, &c.
20. The diviſion of fiſhes by the ſhapes of their bodies.
21. Of Eeles.
22. The manner of taking them in the lake Benacus.
23. The nature of the Lamprey.
24. Of flat and broad fiſhes.
25. Of the ſtay-ſhip Echeneis, and his wonderfull nature.
26. The changeable nature of fiſhes.
27. Of the fiſh called the Lanterne, and the ſea Dragon.
28. Of fiſhes wanting bloud.
29. Of the Pourcuttle, the Cuttle fiſh, the Calamarie, and the fiſh called the Sayler or Marriner.
30. The fiſh Ozæna, and Nauplius: alſo of Lobſtars.
31. Of Crabs, ſea Porkeſpines: and of the greater ſort named Echinometræ.
32. Of Wilkes, Cockles, and ſhell fiſhes.
33. Of Scallops, Porcellanes, of the ſhell fiſh Murex, and other ſuch.
34. The riches and treaſures of the ſea.

Chap.
35. Of pearles, how they be engendered, and where: alſo how they be found.
36. The nature of the Purple fiſh and the Burrets or Murices.
37. How many kinds there be of purple fiſhes.
38. How the purple fiſhes be taken.
39. When purple was firſt worne in the citie of Rome.
40. The price of purple cloths at Rome.
41. The dying of the Amethyſt colour, of the Skarlet in graine, and the light Skarlet Hyſginus.
42. Of the fiſh called the Nacre, and his guide or keeper Pinnoteres: alſo the intelligence of fiſhes and water creatures.
43. Of Scolopendres, ſea Foxes, and the fiſhes Glani.
44. Of the fiſh called the ſea Ram.
45. Of thoſe things which have a third nature, beeing neither living creatures, ne yet plants, to wit, of ſea Nettils and Spunges.
46. Of Houndfiſhes or ſea dogs.
47. Of ſea fiſhes that have ſtonie ſhels: of thoſe that have no ſence at all: of other naſtie and filthie creatures.
48. Of ſea fiſhes venomous.
49. The diſeaſes incident to fiſhes.
50. The admirable generation of fiſhes.
51. *Item*, Another diſcourſe of their generation: and what fiſhes they bee which doe lay egges.
52. The matrices or wombes of fiſhes.
53. What fiſhes live longeſt.
54. Of Oyſter pits, and who did firſt deviſe them.
55. Who firſt invented ſtewes and ponds to feed Lampreies in.
56. The ſtewes and ponds for other ſhell Fiſhes, and who brought them up firſt to be uſed.
57. Of fiſhes that haunt the land.
58. The rats of Nilus.
59. Of the fiſh called Anthias, and how hee is taken.
60. Of the ſea ſtarres.
61. Of the fiſhes Dactyli, and their admirable properties.
62. What fiſhes do entertaine amitie one with another, and which be ever at warre.

In ſumme, this Booke containeth ſtories, notable things, and obſervations, to the number of 650, collected

Out of

The first Booke of

Out of Latine Authors.

Turanius Graccula, Trogus, Mecænas, Alfius Flavus, Cornelius Nepos, Laberius, the writer of merry Epigrams, Fabianus, Feneſtella, Mutianus, Aelius Stilo, Statius Seboſus, Meliſſus, Seneca, Cicero, Macer Aemylius, Meſſala Corvinus, Trebius Niger, and Nigidius.

Out of Forraine Writers.

Ariſtotle, king Archelaus, Callimachus, Democritus, Theophraſtus, Thraſyllus, Hegeſidemus of Cythnos, and Alexander Polyhiſtor.

¶ IN THE TENTH BOOKE ARE CONTAINED the natures and ſtories of Foules and *flying creatures.*

Chap.

1. The nature of Foules.
2. Of the Phœnix.
3. Of Ægles.
4. When the Romane legions uſed the Æagle ſtanderd, and other enſignes. Alſo with what creatures Ægles maintaine fight.
5. A ſtrange and woonderfull caſe as touching an Ægle.
6. Of the Vultures or Geires.
7. Of the foule Sangualis.
8. Of Faulcons and Hawkes.
9. Of the Cuckow, which is killed by birds of her owne kind.
10. Of Kites or Puttockes.
11. A diviſion of birds into generall kinds.
12. Of unluckie and ominous birds, the Crow, the Raven, and the Like-owle.
13. Of the foule that carieth fire in her mouth.
14. Of the bird Clivina.
15. Of many birds unknowne.
16. Of foules that flie by night.
17. Of Howlets.
18. Of the Wood-pecker.
19. Of birds which have clawes and crooked tallons.
20. Of Peacockes: and who killed them firſt for to be ſerved at the table.
21. Of Cockes: how they be cut: of a dunghill cocke that ſpake.
22. Of Geeſe: who firſt deviſed to make a daintie diſh of the Gooſe liver: the gravie or fat of Geeſe, called Comagenum.
23. Of Cranes, Storkes, Swans, ſtraunge fouls of outlandiſh countries, of Quailes, and the bird Glotis.
24. Of Swallowes and Martins, of Blackbirds, Thruſhes, and Merles, of Sterlings, Turtle-doves, and Quoiſts or Ringdoves.
25. Of birds that tarie with us all the year long, of birds that be for halfe a yeare only, and others that remaine but three months.
26. Marvellous ſtories of birds.
27. Of the birds called Seleucides.
28. Of the foule Ibis.
29. What birds will not abide in all places: which they be that chaunge both hew and voice: alſo of Nightingales.
30. Of Merles or Ouſels.
31. The time wherein birds breed, lay, and ſit.
32. Of the birds Halciones, the navigable daies that they doe ſhew: of the Sea-guls and Cormorants.
33. The induſtrie and ſubtiltie of birds in building their neaſts: of the ordinarie Swallow, the river Swallow Argatilis: the birds Cinnamologi that ſteale Cinnamon, and of Partridges.
34. Of Houſe-doves.
35. Of Stock-doves.
36. Of Sparrowes.
37. Of the Keſtrell or Stannell.
38. Of the flight and gate of birds.
39. Of certaine footleſſe Martinets, called Apodes.
40. Of certain Guls that milke and ſuck Goats udders, and be named Caprimulgi: alſo of Pelicanes named Plateæ.
41. The perceivance and naturall wit of birds.
42. Of the Linnet, Popinjay, or Parret, & ſuch birds that will learne to ſpeake.
43. The intelligence and underſtanding that Ravens have.
44. Of *Diomedes* his birds.
45. Of dull witted birds that will be taught nothing.
46. The manner how birds drinke.
47. Of foules called Himantipodes, and Onacrotali, and of other ſuch ſtrange birds.
48. The

Chap.
48. The names of many birds & their natures.
49. Of ſtraunge and new birds, ſuch alſo as bee holden for fabulous.
50. Who deviſed firſt to cram Hens & Capons; of bartons, mewes, and coupes to keep and feed foules, and the firſt inventour thereof.
51. Of *Æſopes* platter.
52. The generation of birds, and what fourfooted beaſts do lay egs as well as birds.
53. The knitting of egges within the bodie, the laying, couving and ſitting of them, the maner and time of birds engendering.
54. The accidents that befall to broodie birds whiles they ſit, and the remedies thereof.
55. Auguries and preſages by egges.
56. What Hens be of the beſt kind.
57. The diſeaſes incident to Hens, & the cure.
58. The maner how birds conceive: what number of egs they lay, & how many they hatch.
59. Of Peacockes and Geeſe.
60. Of Herons and Bitters. The way to preſerve and keepe egges.
61. The only bird that bringeth forth her yong alive, & feedeth the ſame at the pap with milk.
Chap.
62. The conception of the Viper, and how ſhe is delivered of her young, alſo what land creatures lay egges.
63. The ordinary generation of land creatures.
64. The diverſitie of living creatures in the maner of their engendering.
65. The yong ones that mice and rats do breed.
66. Whether of the marrow of a mans backe bone a ſerpent will engender.
67. Of the Salamander.
68. What things be engendered of thoſe that were never engendered, and contrariwiſe, what creatures they be, which being engendered themſelves, breed not.
69. The ſences of living creatures.
70. That fiſhes doe both heare and ſmell.
71. That the ſence of feeling is common to all living creatures.
72. What creatures live of poyſons, and eat earth.
73. Of the meat and drinke of diverſe creatures.
74. What creatures evermore diſagree: and which they bee that agree well together.
75. Of the ſleepe of living creatures.

This booke hath in it of notable matters, hyſtories and obſervations 904, gathered out of

Latine Authors and records.

Manilius, Cornelius Valerianus, the publicke records and regiſters, Vmbricius ſurnamed Melior, Maſſurius Sabinus, Antiſtius Labeo, Trogus Cremutius, M. Varro, Macer Aemylius, Meliſſus, Mutianus, Nepos, Fabius Pictor, T. Lucretius, Cornelius Celſus, Horatius, Deſulo, Hyſginus, Sarſennæ, both father and ſonne, Nigidius, and Manlius Sura.

Forraine Writers.

Homer, Phæmonoes, Philemon, Boethius who wrote a treatiſe called Ornithagonia, Hylas who made a diſcourſe of Auguries, Ariſtotle, Theophraſtus, Callimachus, Aeſchylus, Hiero, Philometor, Archytas, Amphilochus the Athenian, Anaxipolis the Thaſian, Apollodorus of Lemnos, Ariſtophanes the Mileſian, Antigonus the Cymæan, Agathocles of Chios, Apollonius of Pergamus, Ariſtander the Athenian, Bacchius the Mileſian, Bion of Soli, Chæreas the Athenian, Diodorus of Pryæne, Dion the Colophonian, Democritus, Diophanes of Nicæa, Epigenes of Rhodes, Evagoras of Thaſos, Euphonius of Athens, king Iuba, Androcion who wrote of Husbandrie, and Aeſchrion likewiſe who wrote thereof, Dionyſius who tranſlated Mago, and Diophanes who reduced his worke into an Epitome, Nicander, Oneſicritus, Philarchus, and Heſiodus.

¶ IN THE ELEVENTH BOOKE ARE CONtained the ſtories and natures of ſmall creatures *and ſuch as creepe on the ground.*

Chap.
1. Of Inſects in generall.
2. The naturall induſtrie of thoſe Inſects.
3. Whether Inſects do breath, & whether they have bloud or no?
Chap.
4. The matter & ſubſtance of the Inſects bodie.
5. Of Bees.
6. The government and order which Bees keep by inſtinct of nature.

Chap.
7. Divers operations of the Bees,& the tearms thereto belonging.
8. Of what flowers Bees do make their cellars, combes,and other workes.
9. What persons tooke a great love to Bees, and delighted to nourish them.
10. The manner of Bees when they be at their businesse.
11. Of Drones.
12. The nature of Honey.
13. Which is the best Honey.
14. The severall and particular kinds of Honey in diverse places.
15. The markes and tokens of good Honey.
16. Of a third kind of Honey, and how a man should know good bees.
17. The regiment and pollicie that Bees observe.
18. Diverse sorts of Bees, and what things bee hurtfull to Bees.
19. The diseases incident to Bees.
20. How to keepe the cast of Bees when they swarme,that they flie not away,also how to recover Bees,in case their breed and race be lost.
21. Of Wespes and Hornets.
22. Of silke flies, their wormes and Iackes called Bombylis and Necydalus, and who first devised silke cloth.
23. Of the silkeworme in the Island Coos.
24. Of the Spiders and their generation.
25. Of Scorpions.
26. Of Stellions and Grashoppers.
27. In what countries there bee no Grashoppers,and where they sing not.
28. The wings of Insects, of Beetles and their kinds.
29. Of Locusts.
30. Of Ants or Pismires in Italie.
31. Of Indian Ants or Emmets.
32. The diverse sorts of Insects.
33. Of certaine creatures breeding of wood, and living of wood.

Chap.
34. Of a certain creature that hath no passage to void excrements.
35. Of Moths and Gnats.
36. Of flies living in the fire,named Pyrales or Pyraustæ.
37. A discourse Anatomicall of all parts and members of the bodie.
38. Of Bloud. Also in what creatures bloud wil sooneſt clutter and congeale,and whose will not at all. What creatures have the grosseſt and heavieſt bloud, and which the fineſt and thinneſt: and lastly,who have no bloud at all.
39. Whether the soveraignetie and excellencie of sence consisteth in bloud. Of the skin and hide, of the haires and dugs of living creatures.
40. What creatures have notable dugs or teats above the rest.
41. Of Milke, and what milke will make no cheese.
42. Divers kinds of Cheese.
43. How the lims and members of mans body differeth from other creatures.
44. The resemblance that Apes have to us.
45. Of Nailes.
46. Of Houses.
47. Of birds feet and their clawes.
48. Of Insects feet,from two to an hundred.
49. Of Dwarfes in each kind, and the genitall parts.
50. Of Tailes.
51. Of Voices.
52. Of superfluous members of the bodie. The sayings of *Aristotle* as touching long life.
53. Of the wind & breath that living creatures take. What things if they bee tasted,bee venomous and deadly. The food of man, as well for meat as drinke. What causes they be that hinder digestion.
54. How to encrease or diminish the corpulencie of the bodie, and what things with tast onely,will allay hunger and quench thirst.

In summe, this Booke containeth notable things, stories,and observations, 2270.

Latine Authors cited.

M. Varro, Hyginus, Scropha, Sarcena, Celsus Cornelius, Aemilius Macer, Virgil, Columella, Iulius Aquila, who wrate of the Tuscane discipline, Tarquilius, who likewise wrote of the same, and Vmbritius that travelled in that argument, Cato Censorius, Domitius Calvinus, Trogus, Melissus, Favonius, Fabianus, Mutianus, Nigidius, Manilius, and Opius.

Forreine Writers.

*Aristotle, Democritus, Neoptolemus, who wrote *Meliturgia, Aristomachus, who likewise made a Treatise*

*i. As touching the worke of Bees.

Treatiſe of the ſame, and Philiſtus alſo that did the like, Nicander, Menecrates, Dionyſius that tranſlated Mago, Empedocles, Callimachus, king Attalus, Apollodorus who wrote of venomous beaſts, Hippocrates, Eriphilus, Eraſiſtratus, Aſclepius, Themiſo, Poſidonius the Stoicke, the two Menanders, one of Priene and the other of Heraclea, Euphronius of Athens, Theophraſtus, Heſiodus, and king Philometor.

¶ IN THE TWELFTH BOOKE ARE CONTAINED diſcourſes of Trees.

Chap.

1. The honor done to trees, of the Plane trees: when they were firſt brought into Italy, and of their nature.
2. Of the dwarfe Planes growing low, and who was the firſt that cut and ſhred trees into arbours.
3. Of ſtraunge trees, and principally of the Citron tree in Aſſyria.
4. Of India trees, and when Ebene was firſt ſeen at Rome.
5. Of a certaine Thorne and Figgtree of India.
6. Of a tree named Pala: alſo of other Indian trees that are nameleſſe, and of thoſe that beare wooll and cotton.
7. Of Pepper trees and Clove trees, and manie others.
8. Of Macir or Sugar, and the trees growing in the region Ariana.
9. Of Bdellium, and of trees along the Perſian gulfe.
10. Of trees growing in the Iſland within the Perſian gulfe, and thoſe that beare Cotton.
11. Of Goſſampine trees, and thoſe which ſerve to make cloth, and wherein conſiſteth the fruit of certaine trees.
12. Of Coſtus, Spikenard, & divers ſorts of Nard.
13. Of Aſarabacca, Amomum, Amonius and Cardamomum.
14. Of Frankincenſe, & trees that yeeld Incenſe.
15. Of Myrrhe and Myrrhe trees.
16. Of ſundrie ſorts of Myrrhe, the nature thereof and the price.
17. Of Maſticke, Ladanum, and Bruta, of Enhæmum, Strobus, and Styrax.
18. Of the felicitie and happineſſe of Arabia.
19. Of Cinnamon, and the wood thereof called Xylocinnamum, and of Caſia.
20. Of Iſocinnamon or Canel, of Caucamum and Tarum.
21. Of Serichatum, Gabalium, and Ben, otherwiſe called Myrobalanus.
22. Of Dates called Phœnicobalanus, & ſweet Calamus.
23. Of Ammoniacum, and the ſweet moſſe called Sphagdus or Vſnea.
24. Of Cyprus, Aſpalathus and Marum.
25. Of Baulme, as well the liquor called Opobalſamum, as the wood Xylobalſamum, of Storax and Galbanum.
26. Of Panace, Spondylium, and Malobathrum or Folium Indicum.
27. Of the oile of green Olives called Omphacium, and of Verjuice.
28. Of Bryon, and the wild Vine Oenanthe, of the Firre Elate, of Cinnamon, and the oyle of Nuts called Caryopus.

In ſumme, this booke containeth in it of notable matters, hyſtories, and obſervations, 974.

Latine Authours alleadged.

M. Varro, Mutianus, Virgil, Fabian, Seboſus, Pomponius Mela, Flavius Proculus, Trogus, Hyginus, Claudius Cæſar, Cornelius Nepos, Sextius Niger who wrate in Greeke of Phyſicke, Caſsius Hemina, L. Piſo, Tuditanus, and Antias.

Forreine Writers.

Theophraſtus, Herodotus, Calliſthenes, Iſidorus, Clitarchus, Anaximenes, Dioris, Nearchus, Oneſicratus, Polycritus, Olympiodorus, Diognetus, Nicobulus, Antiſclides, Charax of Mitylene, Menechmus Dorotheus, Xenias the Athenian, Lycus, Antæus, Ephippus, Chæreas, Democles, Ptolemæus, Lagus, Marſyas the Macedonian, Zoilus likewiſe of Macedonie, Democritus, Amphilochus, Ariſtomachus, Alexander Polyhiſtor, king Iuba, Apollodorus the author of the treatiſe concerning ſweet odours, Heraclides the Phyſician, Archidemus likewiſe the Phyſician, Dionyſius, Democlides, Euphron, Obſenides, Diagoras, Iolla (all ſix Phyſicians) Heraclides of Tarentum, Xenocritus of Epheſus, and Eratoſthenes.

¶ IN THE THIRTEENTH BOOKE ARE CONtained Treatises of Ointments and of Trees *by the sea side.*

Chap.
1. Of sweet ointments & perfumes: when they came to bee first knowne at Rome, and of their composition.
2. What ointment was that which they called Roiall: which be Diapasmate or drie perfumes, and how they be kept.
3. The roiotous and superfluous expences that the Romanes were at for such ointments: and when they were first taken up and used in Rome.
4. Of Palmes or Date trees, their nature and sundrie sorts.
5. The trees of Syria.
6. Of the Terebinth tree.
7. Of the Ægyptian Figtree or Sycomore, and that of Cypresse.
8. Of the fruit which is called Ceraunia Siliqua.
9. Of the Peach-tree or Persica of Ægypt: and the Ægyptian thorn, wherof commeth Acacia.
10. Of the Plum tree and others about Memphis.
11. Sundrie sorts of gums, and of the Papyr reed.
12. Divers kinds of Paper, how Paper is made, *Chap.*
the triall of good Paper, the faults of Paper, and the paste that goeth to the making of Paper.
13. The bookes of king *Numa*.
14. The trees of Æthyopia.
15. The trees of Atlas, Citron trees, what points are commendable or otherwise faultie therein.
16. Of the tree Thya.
17. Of the tree Lotos.
18. Of the bodie and root of Lotus.
19. Of Patyurus, of the Pomgranat, and the flower of the Pomgranat.
20. Of plants and shrubs in Asia and Greece.
21. Of Thymelæa, Chamelæa, Tragacanthe, Tragium or Scorpio, of Tamariske, Brya, and Galla.
22. Of Euonymus or Spyndle tree, of Adrachne, Congygria, and Thapsia.
23. Of Capparis or Cynosbatos, or Opheostaphyle, and of Sari.
24. Of the royall thorne of Babylon, and Cytisus or tree Trifolie.
25. Of shrubs and trees growing upon our Mediterranean seas, the red sea, and the Indian sea.

In summe, there be compriſed in this booke of notable things, stories, and obſervations, foure hundred fiftie and eight.

Latine Authors cited.

Marcus Varro, Mutianus, Virgil, Fabianus, Seboſus, Pomponius Mela, Flavius Proculus, Trogus, Hyginus, Claudius Cæſar, Cornelius Nepos, Sextius Niger, who wrote in Greeke of Phyſicke, Caſsius Hemina, L. Piſo, Tuditanus, and Antias.

Forraine writers.

Theophraſtus, Herodotus, Calliſthenes, Iſidorus, Clitarchus, Anaximenes, Duris, Nearchus, Oneſicritus, Policritus, Olympiodorus, Diognetus, Cleobulus, Anticlides, Charax the Mitylenæan, Menæchmus, Dorotheus, Xenias the Athenian, Lycus, Antæus, Ephippus, Dio, Adimanthus, Ptolomæus Lagus, Marſyas and Zoilus, both Macedonians, Democritus, Amphilochus, Alexander Polyhiſtor, Ariſtomachus, king Iuba, Apollodorus who wrate of Odours, Heraclides the Phyſician, Botrys, Archidemus, Dionyſius, Democlides, Euphron, Mneſicles, Diagoras and Iolla, Phyſicians all, Heraclides of Tarentum, and Xenocritus the Epheſian.

¶ IN

¶ IN THE FOVRTEENTH BOOKE ARE contained Treatiſes of Vine trees *and Vine-yards.*

Chap.
1. Of Vines and their nature, the manner how they beare grapes.
2. Sundry kinds of Vines in generall.
3. More kinds of Vines according to the propertie of countries where they grow.
4. Notable conſiderations as touching the planting and ordering of Vines.
5. The nature of wine.
6. The beſt and moſt kindly wines.
7. Wines outlandiſh and beyond ſea.
8. Of the wine called Biæon, ſeven kinds therof.
9. Of ſweet wines foureteene ſorts.
10. Of ſecond wines or houſhold wines.
11. What good wines began of late to bee in requeſt at Rome.
12. Obſervations of wine, ſet down by king *Romulus*.
13. The auncient uſage of wine, and the wines of old time.
14. Of cellars for wine, and the wine Opiminianum.
15. *Cæſars* liberalitie in wine, & when firſt there were foure ſorts of wine ſet downe.
16. Of artificiall or ſet wines.
17. Of Hydromell and Oxymell.
18. Prodigious and ſtrange kinds of wine.
19. What wines might not bee uſed in ſacrifices, and with what ſorts new wines are ſophiſticated.
20. Sundrie ſorts of Pitch and Roſin: of the manner of ſophiſticating new wines: of vinegre and wine lees.
21. Of wine cellars.
22. Of avoiding drunkenneſſe.

In ſumme, it containeth notable matters, hyſtories and obſervations 510, gathered out of

Latine Authors.

Cornelius Valerianus, Virgil, Celſus, Cato Cenſorius, Sarſennæs both father and ſonne, Scropha, Varro, Decimus Syllanus, Fabius Pictor, Trogus Hyginus, Flaccus Verrius, Græcinus Iulius, Accius, Columella, Maſſurius Sabinus, Feneſtella, Tergilla, M. Actius Plautus, Fabius, Dorſennus, Scævola, Aelius, Atteius Capito, Cotta Meſſalinus, L. Piſo, Pompeius Lenæus, Fabianus, Sextius Niger, and Vibius Rufus.

Forraine Writers.

Heſiodus, Theophraſtus, Ariſtotle, Democritus, king Attalus, K. Philometer, Architas, Xenophon, Amphilochus the Athenian, Anaxipolis the Thaſian, Apollodorus the Lemnian, Ariſtophanes the Mileſian, Antigonus the Cymæan, Agathocles the Chian, Apollonius of Pergamus, Ariſtander of Athens, and likewiſe Batrys the Athenian, Bacchius the Mileſian, Bion of Soli, Chæreas the Athenian, and Cheriſtus likewiſe of Athens, Diodorus of Priene, Dio the Colophonian, Epigenes the Rhodian, Evagoras the Thaſian, Euphron of Athens, Androcion, Aeſcrion and Lyſimachus, who wrote all three of Agriculture, Dionyſius who tranſlated Mago, Diophanes who brought Dionyſius into an Epitome, Aſclepiades the Phyſician, Oneſicritus, and king Iuba.

¶ THE FIFTEENTH BOOKE TREATETH OF the nature of trees fruitfull, and planted *in Hort-yards.*

Chap.
1. The nature of fruitfull trees.
2. Of the oyle of Olives.
3. The nature of the Olive & yong Olive trees.
4. The nature of the oile Olive.
5. The manner of husbanding Olive rowes.
6. How to keepe Olives and make oile thereof.
7. Of artificiall oile.
8. Of the dregs or Olive cake, being preſſed.
9. Of fruits of trees good to eat, their ſeverall kinds and natures.
10. Of Pine nuts foure kinds.
11. Of the Quince.

Chap.
12. Of Peaches foure ſorts.
13. Of Plums eleven kinds.
14. Sundrie kinds of Apples, and namely, nine and twentie ſorts.
15. Of Peares & Wardens: of ſundrie ſtrange deviſes to graffe trees.
16. Of preſerving & keeping Apples and ſuch like fruits.
17. The manner how to keepe Quinces, Pomgranats, Peares, Wardens, Sorviſes, and Grapes.
18. Of Figs nine and twentie ſorts.
19. Of the wild Figtree: of caprification or the manner how to bring Figgs to maturitie by the meanes of certaine flies.
20. Of Medlars, and three ſorts of them.

Chap.
21. Foure kinds of Sorvoiſes:
22. Of the Walnut.
23. Of Cheſtnuts eight kinds.
24. Of Charobs called Siliquæ, of Apples, of Mulberies, of Graines, Pippins and Kernils within fruits, alſo of berries.
25. Of Cherries eight ſorts.
26. Of the Corneill fruit, and Lentisks.
27. Sundrie ſorts of juices, and odours.
28. Of the iuices in fruits and trees: of colours, ſmels, and the natures of diverſe fruits, alſo the ſingularities and commendations of them.
29. Of the Myrtle, eleven kinds thereof.
30. Of the Lawrell or Bay tree, thirteene ſorts of it.

In ſumme, there be compriſed in this booke of notable matters, ſtories, and obſervations 520, collected out of

Latine Authors.

Feneſtella, Fabianus, Virgil, Cornelius, Valerianus, Celſus, Cato Cenſorius, Sarſenna (both father and ſonne) Scropha, Mar. Varro, D. Syllanus, Fabius Pictor, Trogus, Hyginus, Flaccus Verrius, Græcinus, Atticus, Iulius Sabinus, Tergilla, Cotta Meſſalinus, Columella, L. Piſo, Pompeius Lenæus, M. Accius Plantius, Fabius Dorſenus, Scævola, Aelius, Atteius Capito, Sextus Niger, and Vibius Rufus.

Forraine writers.

Heſiodus, Ariſtotle, Democritus, king Hiero, Archytas, king Philometor, king Attalus, Xenophon, Amphilochus the Athenian, Anaxipolis the Thaſian, Apollodorus of Lemnos, Ariſtophanes the Mileſian, Antigonus the Cymæan, Agathocles of Chios, Apollodorus of Pergamus, Ariſtander the Athenian, Bacchius the Mileſian, Bion of Soli, Chæreas of Athens, and Chæriſtus likewiſe the Athenian, Diodorus of Priene, Dion the Colophonian, Epigenes the Rhodian, Evagoras the Thaſian, Euphronius the Athenian, Androcion and Aeſchrion (who writ both of Husbandrie) Dionyſius that tranſlated the bookes of Mago, and Dionyſius the Epitomiſt, who brought them all into a Breviarie. Aſclepiades and Eraſiſtratus, both Phyſicians, Comiades, who wrate as touching the confectures of wine, Ariſtomachus, Hiceſius, who both treated of the ſame matter, Themiſon the Phyſician, Oneſicritus, and king Iuba.

IN THE SIXTEENTH BOOKE ARE CONtained the natures of vvild Trees.

Chap.
1. Countries wherein no trees doe grow: miraculous woonders of trees in the North countries.
2. Of the great forreſt Hercynia.
3. Trees that beare Maſt.
4. Of the Civick guirland, and who in old time were adorned and honoured with chaplets of tree leaves.
5. Of Maſt thirteene kinds.
6. Of Beech Maſt, and other ſorts of Maſt: of Coale, and the feeding of Hogs.
7. Of Gals, and how many things beſides Maſt and Acornes Maſt trees doe beare.
8. Of Cachrys, and of the Skarlet graine: alſo of Agaricke and Corke.
9. Of what trees the barke is in uſage.
10. Of ſhindles to cover houſes, of the Pine-tree and the wild Pine, of the Firre & Pitch-tree, of the Larch tree, of the Torch tree Tœda, and the Eugh tree.
11. The

Chap.
11. The manner of making ſundrie ſorts of Pitch and Tar: how the virgin pitch called Cedrium is made: of the thicke ſtone pitch how it is made: and the ways to boile roſin.
12. Of the ſhip pitch called Zopiſſa: of Sapium: and thoſe trees that yeeld timber good for building.
13. Of the Aſh tree, foure kinds.
14. Of the Teil or Linden tree, two ſeverall ſorts thereof.
15. Ten divers ſorts of Maples.
16. Of the knot in Maple called Bruſcus and Molluſcum: of a kind of Fiſticke tree called Staphylodendron: of Box tree three ſorts.
17. Of the Elme, foure kinds.
18. The nature of trees according to their ſituation and places where they grow.
19. A generall diviſion of trees.
20. What trees never ſhed their leaves quite: of the Oleander tree called Rhododendron.
21. Againe what trees looſe not their leaves, but ſhew alwaies greene, which be they that ſhed their leaves in part. In what countries no trees at all doe looſe their leaves.
22. The nature of thoſe trees which let fall their leaves, and which have leaves of ſundrie colours.
23. Three ſorts of Aſps or Poplars: & of what trees the leaves doe alter their forme and faſhion.
24. What leaves uſe to turne everie yeere: the manner how to order the leaves of Date trees and to uſe them. Alſo ſtraunge and admirable things as touching leaves.
25. The order and courſe that Nature holdeth in plants: the bloſſoms of trees: their manner of conception, blouming, budding, and bearing fruit: and in what order they put out floures.
26. Of the Corneil tree: the right ſeaſon wherin everie tree beareth fruit: what trees bee fruitleſſe, and therfore are ſuppoſed unhappie: which they bee that ſoone looſe their fruit: and laſt of all what trees ſhew fruit before they put forth leaves.

Chap.
27. Of trees that beare fruit twice and thrice in one yeere: what trees ſodainly wax old: the age of trees.
28. Of the Mulberrie tree.
29. Of trees growing wild.
30. Of the Box tree, and the great Beane tree or Lotus.
31. Of the boughs, braunches, barke, rind, and root of trees.
32. Of prodigious trees that preſage ſomewhat to come: of trees that ſpring and grow of themſelves. Alſo a diſcourſe, that all trees grow not in everie place: and what trees will not live but in this or that one place.
33. Of the Cypreſſe tree. Alſo, that the ground will bring forth ſome new plants that never were ſet, ſowne, or growing there before.
34. Of Yvie.
35. Of the Ivie called Smilax.
36. Of Reeds, Canes, and ſhrubs growing in water.
37. Of the oſier or willow, eight ſorts thereof: alſo what twiggs beſides oſiers and willowes are good for windings and to bind withall: of buſhes and grieves.
38. The juice and liquor of trees: the nature of their wood and timber: alſo of hewing downe and falling trees.
39. Of the Larch tree, the Fir, and the Sapine: the time of cutting them downe, and ſuch like.
40. Sundrie ſorts of wood: the extraordinarie bigneſſe of trees: what wood is not ſubject to be worm-eaten nor to decay: other trees that be everlaſting.
41. Of wood-worms.
42. Of timber fit for carpentrie and building: what timber is good for this or that uſe; and namely, which is beſt and more firme and durable for rouſs of houſes.
43. The manner of glewing bourds & planks: alſo of tent or cloven ſtuffe.
44. The age of trees: which bee they that laſt not long: of Miſſelto, and of the Prieſts Druydæ.

In ſumme, this booke comprehendeth of notable things, hiſtories, and obſervations, an hundred and five and thirtie.

Latine Authours cited.

M. Varro, Fœcialis, Nigidius, Cornelius Nepos, Hyginus, Maſſurius, Cato, Mutianus, Lucius Piſo, Trogus, Calpburnius, Baſſus, Cremutius, Sextius Niger, Cornelius Bocchus, Vitruvius, and Græcinus.

Forreine

Forreine Writers.

Alexander Polyhiſtor, Heſiodus, Theophraſtus, Democritus, Homer, Timæus the Mathematician.

¶ THE SEVENTEENTH BOOKE CONTAIneth the nature of trees planted, ſet, and well *kept in Hortyards.*

Chap.

1. Trees of wonderfull price.
2. Of the nature of heaven and the skie reſpective unto trees: and what part of the skie they ought to regard.
3. The ſocietie and accord of the climate and the ſoile requiſit for trees.
4. The qualities of the ground in divers regions.
5. Sundrie kinds of ground and earth.
6. Of a kind of earth or marle that they in Britaine and Fraunce ſet much ſtore by.
7. What the Greekes have taught, and what rules they have given as touching this point.
8. Of more kinds of earth.
9. The uſe of aſhes, and of dung: what plants will enrich the ground and make it more battell: contrariwiſe, which they bee that burne out the heart thereof.
10. The planting or ſetting of trees: how to make a ſion or ſlip to take and grow againe that is plucked from the root of the ſtocke.
11. Of tranſplanting out of ſeminaries, yong trees that came of pepins and ſeeds.
12. The ſpaces betweene and diſtance to bee regarded in planting trees: the ſhadow and droppings, either from houſe eaves or other trees.
13. What trees grow apace, and which thrive but ſlowly: alſo of the Savine.
14. The ſetting and graffing imps and ſions of trees in the ſtocke or cliffe.
15. Of the manner how to graffe a vine.
16. Of inoculation or graffing in the leafe or ſcutcheon with a plaſtre.

Chap.

17. An example or experiment of this kind of graffing.
18. The order of planting and husbanding olives: and which is the proper time for graffing.
19. What trees love the companie and ſocietie of others: the skill of baring the roots about trees, cutting off their ſuperfluous ſpurns, and raiſing hills about the roots.
20. Of willow banks and rows of oſiers: of places where reeds and canes are nouriſhed: of other plants uſed to be cut, for poles, pearches, ſtakes, and forkes.
21. The manner of planting vines: the skill of trimming them.
22. The furrow about vines: and the pruning of them.
23. The manner of planting trees to ſerve for vines to run upon.
24. How to keepe and preſerve grapes: the diſeaſes incident to trees.
25. Of ſundrie prodigious and monſtrous ſights ſhewed in trees: alſo of an olive yard which in old time removed, and was tranſplanted from one ſide of a great high way to the other.
26. Remedies againſt the diſeaſes and imperfections or faults in trees.
27. Of ſcarification and paring of trees: and the manner of dunging them.
28. Divers medicines againſt venemous beaſts and piſmires, and other creatures noiſome and hurtfull to trees.

In ſumme, here bee contained notable matters, ſtories, and obſervations, to the number of five hundred eightie and one.

Latine Authors alledged.

Cornelius Nepos, Cato Cenſorius, M. Varro, Celſus, Virgill, Hyginus, Sarſennæ both father and ſonne, Scrophas, Calphurnius, Baſſus, Trogus, Æmilius Macer, Græcinus, Columella, Atticus, Iulius, Fabianus, Sura Manlius, Dorſenus Mundus, Caius Epidicus, and L. Piſo.

Forreine Authours.

Iſidorus, Theophraſtus, Ariſtotle, Democritus, Theopompus, K. Hiero, K. Attalus, K. Philometor, Archytas,

Archytas, Xenophon, Amphilochus the Athenian, Anaxipolis the Thaſian, Apollodorus of Lemnos, Ariſtophanes the Mileſian, Antigonus the Cymæan, Agathocles the Chian, Apollonius of Pergamus, Bacchius the Mileſian, Bion, Chærea the Athenian, alſo Chæriſtus of Athens, Diodorus of Priene, Dion the Colophonion, Epigenes the Rhodian, Euagon the Thaſian, Euphron the Athenian, Androcion, Æſchrion, Lyſimachus, who all three wrote of Agriculture: Dionyſius who tranſlated the books of Mago, and Diophanes who out of Dionyſius collected a breviarie, and Ariſtander who made a treatiſe of Wonders and portenteous tokens.

¶ THE EIGHTEENTH BOOKE IS A TREATISE of Agriculture or Husbandrie.

Chap.

1. That our auncetors in old time were exceeding much given to husbandrie. Alſo, the ſingular care that men had to looke unto hortyards and gardens.
2. Of the firſt chaplets and guirlands uſed at Rome.
3. Of the acre of ground and halfe acre, called at Rome Iugeris & Actus. The ancient ordinances concerning cattell: in what time the market for victuals was exceeding cheap at Rome: and who were famous & renowmed for husbandrie and tilling the ground.
4. The auncient manner of tilling the earth.
5. Where a ferme houſe is to be ſeated & built conveniently: certain rules in old time concerning tillage.
6. A diſcourſe as touching the praiſe of huſbandmen: what rules are to be obſerved to come by a good peece of land.
7. Divers kinds of corne, and their nature.
8. That all ſorts of graine will not grow everie where. Of other kinds of corne in the Levant or Eaſt countries.
9. Of baking and paſtrie: of grinding and of meale.
10. Of the fine cocked floure: of the white floure of wheat, and of other ſorts of floure: the manner of moulding and making dough, and baking.
11. The manner of making and laying leaven: alſo of making paſt & bread: and when Bakers were firſt knowne at Rome. Of ſieves, ſerces, and bulters; and of ſodden wheat or frumentie.
12. Of pulſe.
13. Of Rapes and Navewes in the Amiternine tract.
14. Of Lupines.
15. Of Vetches and Ervile.
16. Of Fenigreeke: of Meſſelline or Dredge-corne: of Mung-corne or Bollimong for provander: of Claver or three-leafed graſſe called Medica; and of another Treſoile named Cytiſus.
17. The faults and diſeaſes in corne, graine, and pulſe, and their remedies: what corne or pulſe ought to be ſowne with reſpect to the ground.
18. Of prodigious tokens obſerved in corne. The skill of ploughing the ground: the divers ſorts of culters & ſhares in the plough.
19. The ſeaſons of the yeere fit to till & plough the ground. The manner of putting oxen in the yoke for the plough.
20. Of breaking clods or harrowing: of another kind of tilling: the earing or ſecond tilth or ſtirring the ground. And cutting the corne.
21. The manner of tilling and husbanding land.
22. Examples of divers grounds: of ſuch as are woonderous fertile: of a vine that beareth grapes twice in the yeare. The difference of waters.
23. The qualitie of the ground or ſoile: of compoſt or dunging lands.
24. The goodneſſe of choice ſeeds: the manner of good ſowing: how much ſeed of any corn an acre will take to bee well ſowne. The ſeaſons of ſeednes.
25. The obſervation of the ſtars for their apparition or occultation, their riſing & ſetting, as well for day as night.
26. A recapitulation and briefe ſummarie of all things belonging to husbandrie. What is to bee done in the field everie moneth of the yeere.
27. That husbandmen ſhould not ſo much regard the ſigne or the ſtarrs, as the fit ſeaſon of the time for ſeednes. The riſing or fall, the apparition or occultation of plannets obſerved in ſome hearbs. Of the riſing and ſetting of ſtars.
28. Of medows: how they are to bee repaired and

Chap.
and brought into hart: of ſith-ſtones, hooks, ſickles, and ſithes: the time of ſowing corne, and what fixed ſtarres are of power about that time.
29. Of the ſeaſons and times to be marked as well in ſummer as winter: what remedie for barraine and leane ground.
30. Of the harveſt: of wheat, of chaffe: how to keepe corne.
Chap.
31. Of vintage, and autumne, and the conſtitution thereof.
32. What regard is to bee had in the moone and her age, in husbandrie.
33. The conſideration of the winds for agriculture.
34. The bounds, limits, bawks, and waies, to be obſerved in corne fields.
35. Signes whereby a man may prognoſticat the diſpoſition of the weather.

In ſumme, there be contained in this booke of notable matters, ſtories, and obſervations, two thouſand and ſix hundred.

Latine Authors alledged in this booke.

Maſſurius Sabinus, Caſſius Hemina, Verrius Flaccus, L. Piſo, Cornelius Celſus, Turannius Graccula, D. Syllanus, M. Varro, Cato Cenſorius, Scrofa, Sarſennæ both father and ſonne, Domitius Calvinus, Hyginus, Virgill, Trogus, Ovid, Græcinus, Columella, Tubero, L. Aruntius who wrote in Greeke of Aſtronomie, and Cæſar Dictatour who likewiſe wrote of the ſame argument, Sergius Paulus, Sabinus Fabianus, M. Cicero, Calphurnius Baſſus, Atteius Capito, Manlius Sura, and Actius who compiled a booke called Praxidica.

Forreine Authours.

Heſiodus, Theophraſtus, Ariſtotle, Democritus, K. Hiero, K. Philometor, K. Attalus, K. Archelaus, Archytas, Xenophon, Amphilochus of Athens, Anaxipolis of Thaſus, Ariſtophanes the Mileſian, Apollodorus the Lemnian, Antigonus the Cymæan, Agathocles of Chios, Apollonius of Pergamus, Ariſtander the Athenian, Bacchius the Mileſian, Bion of Soli, Chærea of Athens, Chæriſtus likewiſe the Athenian, Diodorus of Priene, Dion of Colophon, Epigenes of Rhodes, Evagoras the Thaſian, Euphronius the Athenian, Andracion, Æſchrio, and Lyſimachus, who wrote all three of Husbandrie, Dionyſius that tranſlated the works of Mago, and Diophanes who drew the ſame into an Epitome, Thales, Eudoxus, Philippus, Callippus, Doſitheus, Parmeniſcus, Meliton, Criton, Oenopides, Zeno, Euctemon, Harpalus, Hecataeus, Anaximander, Soſigenes, Hipparchus, Aratus, Zoroaſtres, and Archibius.

¶ THE NINETEENTH BOOKE CONTAINETH a diſcourſe of the nature of Flax, and other wonderfull matters.

Chap.
1. The ſowing of Line ſeed: divers kinds of Flax: how it is dreſſed: of naperie and napkins: of linnen that will not burn nor conſume with fire: & when curtans were deviſed at Rome about the theatres.
2. The nature of a kind of broom called Spart, when it came to be uſed firſt, how it is to be ordered & dreſſed, what plants both ſpring and alſo live without roots.
3. Of Myſy, and of Muſhroms, of Tadſtoles or Muſhromes that bee broad and without a taile called Pezici, of Laſerpitium, and Magydaris, of Maddir, and the Fullers root Radicula, *i.* Sopeweed.
4. The manner of dreſſing and trimming gardens: alſo the ordering and due placing of other plants good for to be eaten; over and
Chap.
beſides corn, & the fruit of trees and ſhrubs.
5. The nature, the ſundrie ſorts, and the ſtories of many plants that grow in gardens.
6. Of the roots, leaves, floures, and colours of garden hearbs.
7. How many dayes it will be after the ſeeds of hearbs bee ſowne, or their ſlips ſet, ere they come up: the nature of ſeeds: how hearbs are to be ſown or ſet, and in what courſe and ranke: which hearbs are but one of a kind, and which they be that have many kinds.
8. The nature of ſuch garden hearbs as are good for the pot, or to make ſallads, and to ſeaſon meat withall; their kinds to the number of 46, with their ſtories & deſcriptions.
9. Of Fennell, and Hempe.
10. The diſeaſes and maladies that annoy gardens:

Chap.
dens, the remedies againſt the ſame: as alſo how to kill ants, caterpillers, and gnats.
21. What ſeeds be more or leſſe able to endure any hardneſſe or injurie, and which they be that ſalt waters are good for.
22. The manner of watering gardens: what hearbs they be, which beeing tranſplanted and removed, proove the better: and finally, the juice, the ſweet ſavours, and relliſhes of garden-hearbs.

In ſumme, here are compriſed memorable things, ſtories, and obſervations, a thouſand one hundred fortie and three.

Latine Authours cited.

M. Actius Plautus, M. Varro, D. Syllanus, Cato Cenſorius, Hyginus, Virgill, Mutianus, Celſus, Columella, Calphurnius Baſſus, Manlius Sura, Sabinus Tyro, Licinius Macer, Q. Hirtius, Vibius Ruſus, Ceſennius who wrote Cepurica, [i. a treatiſe of Gardening] Caſtritius likewiſe, and Firmius, (who both twaine made a worke of the ſame matter) and laſt of all Petreius.

Forraine Writers.

Herodotus, Theophraſtus, Democritus, Ariſtomachus, Menander, (who wrote a booke entituled Brochreſta, i. of things profitable for our life and diet) and Anaxilaus.

¶ THE TWENTITH BOOKE COMPRISETH, medecines out of thoſe Simples vvhich are ſet and *ſowed in Gardens.*

Chap.
1. Of the wild Cucumber, and the juice therof Elaterium.
2. Of the Cucumber as well that which wandereth & groweth abroad called Anguinum, as that of the garden: alſo of the Pompion.
3. Of the wild Gourds, and the Rape or Naves.
4. Divers ſort of Navewes: of the wild Radiſh; of the garden Radiſh, and the Parſnip or Carot.
5. Of Staphylinum or the tame Parſnip. The hearb Gingidium or Chervill: of Seſelis or Siler-mountaine: of Elecampane, and of Onyons.
6. Of Porret or Leekes uſed to bee cut, and of cabbage Leeks or headed, alſo of Garlicke.
7. Of wild Lettuce or Hawkeweed, called alſo Lactuca Caprina, of another kind named Eſopus, of Woad, & tame garden Lettuce.
8. Divers kinds of Beets, of Endive, and Cichorie, of garden Endive.
9. Of Cawle or Coleworts, of the wild Coleworts Lapſana, of Soldanella, of Squilla or the Sea-onion, of Scallions or Chibbols, and of Dogleeks.
10. Of Sparage both tame and wild, of Libycum and Clarie.
11. Of Parſley, of Baulme, Smallage, & mountaine Parſley.
12. Of Aliſanders, and garden Baſill.
13. Of wild Baſill, of Rocket, of Creſſes, and Rue.
14. Of wild Mints, of garden Mints, of Peniroyall, of Nep, and Cumin.
15. Of Æthiopian Cumin, which ſtaieth urine, of Capers, of Lovach, of Panace, of wild Origan or Majoram ſavage.
16. More of wild Origan and Heracleotica, called alſo Gallinacea Cunila, *i.* Small majoram, Savorie or Orgament, Roſemarie, ſweet Majoram of the garden and of the mountaine.
17. Of Cockweed, Pepperwort, or Dittander, of garden Origan, of a kind of Orgament called Onitis or Praſon, of Tragoriganum or wild Peniroyall, the water Lillie or Nenuphar, of Lepidium, of Gith or Nigella Romana, and of Aniſe.
18. Of Dill, of Sacopænium, of Sagapen, of Poppies both white and blacke: the maner how to draw the juice of hearbs: and of Opium.
19. Of the wild Poppie, of horned Poppie, of Glaucium or Paralium, of Heraclium or Aphrum, of the confection Diacodium made of Poppie heads, of Tithymall.
20. Of Purcellane or Peplium, of Coriander and Orach.
21. Of Mallowes, and Malope, of Althæa, or Marſh-

Chap.
Marshmallow, of Dockes, soure Docke or Sorell, the water Docke, the hearb Patience or Bulapathum.
22. Three kinds of Senvie, of Horehound, of running Thyme, of water Mints or Savorie, of Lineseed and Bletes.
Chap.
23. Of Meu, of garden Fennell, of wild Fennell or Myrsineum, of Hempe, of Fennellgeant, of Thystles, and Artichokes.
24. The confection called Triacle, the composition of *Antiochus*.

In summe, there be compriſed in this booke of medicines, stories, and obſervations, one hundred ſixtie and ſeven.

Out of Latine Authors.

Cato Censorius, Mar. Varro, Pompeius Lenæus, Gallio, Hyginus, Sextius Niger who wrote in Greeke, and Iulius Bassus likewise, who wrote in the same langnage, Celsus, and Antonius Cæsar.

Forraine writers.

Democritus, Theophrastus, Orpheus, Menander who made the booke Biochresta, Pythagoras, and Nicander.

Out of Phyſicians.

*Nicander, Hippocrates, Chrysippus, Diocles, Ophion, Heraclides, Hicesius, Dionysius, Apollodorus of Tarentum, Apollodorus the Citien, Praxagoras, Philistonicus, Medius, Dienches, Cleophantus, Philistio, Asclepiades, Cratevas, Petronius, Diodorus, Iolla, Erasistratus, Diagoras, Andreas, Mnesicles, Epicharmus, Damion, Dalion, Sosimenes, Theopolemus, Metrodorus, Solon, Lycus, *Olympiades of Thebes, Phyllinus, Petreius, Miction, Glaucia and Xenocrates.*

* A woman who was a Midwife.

¶ IN THE XXI. BOOKE ARE CONTAINED the natures of Flowvers and Hearbes *to make Guirlands of.*

Chap.
1. The nature of flowers and hearbs that serve for Chaplets, the woonderfull varietie of flowers.
2. Of Chaplets and nosegaies of flowers. Who first devised to set flowers in order one with another. When Coronets or Guirlands of flowers were invented and took their name, and upon what occasion.
3. Who first gave a present of a Chaplet garnished with silver and gold foile. In what honour and estimation such Guirlands were in old time. The honor done of old to *Scipio*. Of Coronets or Chaplets platted, wrythed, and braided. Also of a notable act of queen *Cleopatra* in making of Chaplets.
4. Of Roses set in Guirlands. Diverse sorts of Roses, and where they be set and doe grow.
5. Three kinds of Lillies. The straunge manner of setting them.
6. Of Violets, Marigolds, of Baccharis, Combretum, Asarabacca or Folefoot, and Saffron.
7. Of the flowers used in ancient time in Guir-
Chap.
lands & Chaplets. The great diversitie that is in aromaticall and odoriferous simples: of Lavander, Spike, and Polium.
8. The colours of cloth resembling flowers. Of flower Gentill or Passee-velours: of Chrysocome or Chrysites.
9. The honor done by Guirlands, and their excellencie: of Cyclaminum, of Melilot, of Claver or Trefoile, whereof there be three sorts.
10. Of Origan, Thyme, Honey of Athens, of Doniza or Fleabane, of Iupiters flower, of Helenium or Elecampane, of Sothernwood, and Camomile.
11. Of Majoran, of Nyctigretum and Melilote, the white Violet or stocke Gillofre, of Codiaminum, also of wild Bulbs or Rampions, of Heliochrysum, & Lychnis or Rose Campion, and many other hearbes growing on this side the sea.
12. The manner how to nourish and keepe Bees: of their maladies, and remedies thereto.
13. Of

Chap.

13. Of Honey that is venomous, remedies againſt ſuch venomous Honey, as alſo againſt another kind thereof, which maketh folke to be mad that taſt thereof.
14. Of a certain Hony that flies will not touch nor come neare to. Of Bee-hives. The way how for to keepe the Bees when they are at a fault for meat: and how their Wax is made.
15. Of hearbes good to eat which come up of their owne accord, and namely, thoſe that are prickie.
16. Of Thyſtles, of Parietarie of the wall, of Brambles and Orchanet.
17. The difference of many ſorts of hearbes in their leafe. Which they be that doe floure all the yeare long, of the Daffodill, of Piſtana, and of the Gladen or Sword-graſſe.
18. Of diverſe ſorts of Reeds, and of Cyperus, of the medicinable vertues which they have, of Cypirus, and Squinanth.
19. The medicinable vertues of Roſes, of the Lillie, of Narciſſus, of the Violet, and of Baccharis or Ladies gloves, of Combretum and Aſarabacca.
20. Of Nard Celticke and Saffron, the vertues thereof and uſe in Phyſicke, of the ſweet ointment Crocomagma made of Saffron,

Chap.

of Spike or Lavender, of Polium, and Flour de lis, of Heliochryſum, Chryſocome, and Melilot.
21. Of ſweet Trifolie, of Thyme, the wild yellow Lillie Hemerocallis or the Day-flower, of Elecampane and Sothernwood.
22. The medicinable vertues of Camomile and Marjoram.
23. The vertues of Corne Roſe or Paſſe-flowers Anemone.
24. The properties medicinable of Filipendula.
25. The vertues of Heliochryſum.
26. The medicines of Crowtoes.
27. The vertues of the Perywinckle, Butchers broome, of Sampier, and wild Baſill.
28. The medicinable vertues of Colocaſia or the Ægyptian Beane.
29. The properties of Anthalium.
30. The vertues of Fewerfue.
31. The vertues of Nightſhade or petie Morrell, and Alkakengi.
32. Of Corchorus, *i.* Chickeweed, and of Cnicus, *i.* Carthanus or baſtard Saffron.
33. Of the hearbe Perſoluta.
34. Of the weights and meaſures uſed in old time.

In ſumme, there be in this booke to be found medicines, ſtories, and worthie obſervations, ſeven hundred and thirtie.

Latine Authours alleadged.

Cato Cenſorius, M. Varro, Maſſurius, Antias, C. Helius, Veſtimus, Vibius Ruffinus, Hyginus, Pomponius Mela, Pompeius Lenæus, Cornelius Celſus, Calphurnius Baſſus, P. Largius, Licinius Macer, Sextius, and Iulius Baſſus, who both wrate in Greeke, and Antonius Caſtor.

Forreine Writers.

Theophraſtus, Democritus, Orpheus, Pythagoras, Mago, Menander who wrote the Treatiſe Biochreſta, Nicander, Homer, Heſiodus, Muſæus, Sophocles, and Anaxilaus.

Phyſicians.

Mneſtheus and Callimachus who wrote both of Guirlands made of flowers, Phanias the naturall Philoſopher or Phyſician, Simus, Timariſtus, Hippocrates, Chryſippus, Diocles, Ophion, Heraclides, Hiceſius, Dionyſius, Apollodorus of Citia, Apollodorus of Tarentum, Praxagoras, Pliſtonicus the Phyſician, Dieuches, Cleophantus, Philiſtio, Aſclepiades, Cratevas, Petronius, Diodotus, Iolla, Eraſiſtratus, Diagoras, Andreas, Mneſicles, Epicharmus, Damion, Dalion, Zoſimenes, Theopolemus, Metrodorus, Solon, Lycus, Olympias the midwife of Thebes, Phillinus, Petreius, Miction, Glaucias, and Xenocrates.

¶ IN THE XXII. BOOKE ARE CONTAINED discourses as touching the estimation of Hearbes.

Chap.
1. Of certain nations that use hearbes to beautifie their bodies.
2. Of clothes died with the juice of hearbes.
3. Of the Chaplet made of the common meddow grasse.
4. How rare these Guirlands of grasse were.
5. Which were the onely men that had the honour to be crowned with the said Chaplets.
6. The onely Centurion allowed to weare the said Guirland.
7. Medicinable vertues observed in the rest of hearbs and flowers that serve for Guirlands, and first of Eringe or sea Holly.
8. Of the Thystle or hearbe which they call Centum-capita.
9. Of Acanus and Liquirice.
10. Of Brambles or Thystles called Tribuli, their kinds and vertues.
11. The vertues and properties of the hearbe Stœbe.
12. Of Hippophyes, and of Hippope, *i.* the Tazill, and their properties.
13. Of the Nettle and the medicinable vertues of it.
14. Of the white dead Nettle or Archangell Lamium, and the vertues of it.
15. Of the hearbe Scorpius or Caterpillers the kinds and vertues thereof.
16. Of Leucacantha or our ladies Thystle, and the vertues of it.
17. Of Parietarie of the wall called Helxine or Perdicum, of Feverfew or Motherwort, Parthenium, of Sideritis, *i.* wall Sauge or stone Sauge, and the vertues thereof good for Physicke.
18. Of Chamæleon, the sundrie sorts and properties that it hath.
19. Of Coronopus, *i.* Crow-foot Plantaine or Buckhorne Plantain, and the vertues therof.
20. Of Orchanet, as well the right as the bastard, and the vertues of them both.
21. Another kind of Orchanet called Onochelis, of Camomile, of the hearbe Lotus or common Melilot, of Lotometra, which is a kind of garden Lotus or sallade Claver, of Heliotropium, *i.* Turnsoll or Solsium, and Tricoccum, a kind thereof, of Maidenhaire called Adiantum, and Callitrichum.
22. Of bittter Lectuce or wild Cichorie, of Thesium, of Daffodill, of Halimus, of Brankursine, of Bupreſtis, of Elaphoboscum or Gratia Dei, of Scandix, *i.* wild Chervill or shepheards needle, of the wild wort Iasione, of bastard Persly, Caucalis, of Laver, of Sillybum, of Scolimus, *i.* the Artichoke or Limonia, of Sowthystle, of Chondrilla, and of Mushromes.
23. Of Toadstools, of Silphium, & of Laser juice
24. The nature of Hony, of Mead or Hydromel: how it commeth that the fashions are changed in certaine kinds of meat, of honied wine, of wax. A discourse against the composition of many simples.
25. The medicinable vertues of corne.

In summe, here you shall find of medicines, stories, and observations, 906, gathered out of

The same Authours which were named in the booke before, and besides out of *Chrysermus*, *Eratosthenes*, and *Alcæus*.

¶ IN THE XXIII. BOOKE IS CONTAINED a Treatise of Hortyard trees.

Chap.
1. The medicinable qualities of grapes fresh and new gathered, of Vine cuttings and of grape kernils, of the grape Theriace, or Treacle grape, of dried Grapes or Raisins, of Astaphus, of Staveſacre, called also Pituitaria, of the wild Vine, of the white Vine which is called Bryonie, of the blacke Vine, of new wines, of diverse and sundrie sorts of wines and also of vinegre.

2. Of

Chap.
2. Of the medicinable vertues of vinegre Squilliticke, of Oxymell or honied vinegre, of cuit, of the dregs or lees of wine, vinegre, and cuit.
3. The vertues of Olives, of the leaves of the Olive, of the floure and aſhes of the Olive, of the white and blacke fruit of the Olive: alſo of the dregs or grounds of oile.
4. Medicinable properties obſerved in the leaves of the wild Olive, of the oile made of the wild vine flowers, of the oile Cicinum, the oyles of Almonds, Baies, and Myrtles, the oile of Chamamyrſine or grand Myrtle, alſo of Cypreſſe, of Cytrons, & walnuts, &c.
5. The Ægyptian Palmetree that beareth Ben, alſo of the Date tree called Elate, and the vertues of them.
6. The medicinable vertues of ſundrie plants, namely, in their flower, leafe, fruit, boughs, barke, wood, juice, root, and aſhes.
7. Of Peares, and the obſervations to them belonging, of Figges both wild and ſavage: of Erineum, and other ſorts of plants, with their vertues.
8. Of Pine-nuts, and Almonds, of the Filbard and Walnut, of Fiſtickes and Cheſtnuts, of Charobs, Corneils, Strawberrie trees, and Baies.
9. Of the Myrtle gentle, of Myrtidanum, and the wild Myrtle.

In ſumme, there bee noted in this booke medicines, ſtories, and obſervations, a thouſand foure hundred and nineteene.

Latine Authors cited.

C. Volgius, Pompeius Lenæus, Sextius Niger, and Iulius Baſſus, who wrot in Greeke both, Antonius Caſtor, M. Varro, Cornelius Celſus, and Fabianus.

Forraine Writers.

Theophraſtus, Democritus, Orpheus, Pythagoras, Mago, Menander the author of the booke Biochreſta, Nicander, Homer, Heſiodus, Muſæus, and Anaxilaus.

Phyſicians.

Mneſtheus, Callimachus, Phanias the naturall Philoſopher, Simus, Tamariſtus, Hippocrates, Chryſippus, Diocles, Ophion, Heraclides, Hiceſius, Dionyſius, Apollodorus of Cittia, Apollodorus the Tarentine, Praxagoras, Pliſtonicus, Medius, Dieuches, Cleophantus, Philiſtio, Aſclepiades, Cratevas, Petronius, Diodotus, Iolla, Eraſiſtratus, Diagoras, Andreas, Mneſicles, Epicharmus, Damion, Dalion, Soſimenes, Theopolemus, Metrodorus, Solon, Lycus, Olympias the midwife of Thebes, Phyllinus, Petreius, Miction, Glaucia, and Xenocrates.

¶ THE XXIIII. BOOKE TREATETH OF Trees growing vvild.

Chap.
1. Medicinable vertues obſerved in wild trees.
2. The Ægyptian Beane tree, Lotus.
3. Maſt and Acornes.
4. The grain or berie of the tree Ilex, of Gals, of Miſſelto, of little bals and maſt of trees, the root of Citrus, and of Corke.
5. Of the Beech, the Cypreſſe tree, the tall Cedar, the fruit or berrie therof, and of Galbanum.
6. Of Ammoniacum, Storax, Spondylium, Spagnus, the Terebinth tree, of Chamæpitys or Iva Muſcata, of Eſula or Pityuſa, of Roſins, of the Pitch-tree and the Lentiske.
7. Of ſtiffe Pitch, of Tarre, of Pitch twice boyled, of Piſſaſphalt, of Zopiſſa, of the Torch tree, and Lentiske.
8. The vertues of the Plane tree, the Aſh, the Maple, the Aſpe, the Elme, the Linden tree or Teil, the Elder, and Iuniper.
9. Of the Willow, the Sallow Amerina, and ſuch like, good for windings and bands, alſo of Heath or Ling.
10. Of Virga Sanguinea, of the Oiſier, of the Privet, the Aller, of Yvie, of Ciſtus or Ciſſus, of Erythranum, of ground Yvie or Alehouſe, of Withwind, of Perwinke or Leſſeron.
11. Of

Chap.

11. Of Reeds, of Paper cane, of Ebene, of Oleander, of Rhus or Sumach, of Madder, of Alysium, of Sopeweed, of Apaynum, of Rosemarie and the seed thereof, of Selago, of Samulus, of Gums, and the medinable vertues of them all.
12. Of the Arabian thorne or thistle, of Bedegnar, of Acanthium and Acacia.
13. Of the common and wild thystle, of Erysisceptrum, of the thorne or thystle Appendix, of Pyxacanthum or the Barbarie tree: of Paliurus, of the Holly, of the Eugh tree and other bushes, with their vertues in Physicke.
14. Of the sweet Brier or Eglantine, of the Respise bush, of the white bramble Rhamnus, of Lycium, of Sarcocolla, of the composition named Oporice, and all their medicines.
15. Of Germander, of Perwinke or Lowrie, of Chamælæa or Olivell, of Chamæsyce, of ground yvie, of Lavander Cotton, of Ampelopraſos or Vine Porret, of Stachys or wild Sauge, of Clinopodium or Horsetime, of Cudweed, of Perwinke of Ægypt, and their properties.
16. Of Wake Robin, of Dragonwort or Serpentine of the garden, the greater Dragonwort, of Arisaron, of Yarrow, and Millefoile: of bastard Navew, of Myrrhis, and Onobrychis, with their vertues.
17. Of Coriacesia, Callicia, and Menais, with three and twentie other hearbes, and their properties, which are held by some to serve in Magicke. Of Considia and Aproxis: with others that reduce and revive love againe.
18. Of Eriphia, Lanaria, and water Yarrow, with their vertues.
19. Of the hearbs that groweth upon the head of statues and images, of the hearbes that come out of rivers, of the hearb called Lingua simply, *i.* the toung: of hearbes growing within sieves, and upon dunghils, of Rhodora, of the hearb Impia, *i.* the child before the parents, of the hearb Pecten veneris, of Nodia, of Cleivers or Goose Erith, of Burs, of Tordile, of Dent de chien or Quiches, of Dactylus and Fenigreek, with their vertues.

In summe, herein are compriſed medicines, stories, and obſervations, a thousand foure hundred and eighteene: collected out of

Latine Authors.

C. Volgius, Pompeius Lenæus, Sextius Niger, and Iulius Bassus, who wrate both in Greek; Antonius Castor, M. Varro, Cornelius Celsus, and Fabianus.

Forreine Writers.

Theophrastus, Apollodorus, Democritus, Orpheus, Pythagoras, Mago, Menander the author of the booke Biochresta, Nicander,, Homer, Hesiodus, Musæus, Sophocles, and Anaxilaus.

Physicians.

Mnestheus, Callimachus, Phanias the naturall Philosopher, Simo, Timaristus, Hippocrates, Chrysippus, Diocles, Ophion, Heraclides, Hicesius, Dionysius, Apollodorus of Cittia, Apollodorus the Tarentine, Praxagoras, Plistonitus, Medius, Dieuches, Cleophantus, Philistio, Asclepiades, Cratevas, Petronius Diodotus, Iolla, Erasistratus, Diagoras, Andreas, Mnesicles, Epicharmus, Damion, Sosimenes, Theopolemus, Solon, Lycus, Metrodorus, Olympias the midwife of Thebes, Phyllinus, Petreius, Miction, Glaucia, and Xenocrates.

¶ IN THE XXV. BOOKE ARE CONTAINED the natures of hearbes and vveeds that come up of themselves. The reputation that hearbes have been of. When *they began first to be used.*

Chap.

1. The properties and natures of wild hearbes growing of their owne accord.
2. What Authours have written in Latine of the nature and use of hearbes. When the knowledge of simples began first to be practised at Rome. What Greeke Authours first

Chap.
first wrote of hearbs, the invention and finding out of ſundrie hearbes, the Phyſicke of old time. What is the cauſe that Simples are not ſo much in requeſt and uſe for Phyſicke as in old time. The medicinable vertues of the Eglantine and Serpentarie or Dragon.
3. Of a certaine venomous fountaine in Almaine, the vertues and properties of the hearbe Britannica, what diſeaſes cauſe the greateſt paines.
4. Of Moly, of Dodecatheos, of Pæonium, named otherwiſe Pentorobus, and Glycyſide, of Panace or Aſclepios, of Heraclium, of Panace Chironeum, of Panace Centaureum or Pharnaceum, of Heraclium Siderium, of Henbane.
5. Of the hearbe Mercurie female, of Parthenium, of Hermu-Pœa, or rather Mercurie: of Yarow, of Panace Heracleum, of Sideritis, of Millefoile, of Scopa regia, of Hemionium, Teucrium, Splenium, Melampodium or blacke Ellebore, and how many kinds there be of them. The medicinable vertues of blacke and white Ellebore: when Ellebore is to be given, how it is to be taken, to whom it is not to bee given, alſo that it killeth Mice and Rats.
6. Of Mithridatium, of Scordotis or Scordium, of Polemonia, otherwiſe called Philetæria or Chiliodynama, of Eupatorie or Agrimonie, of great Centaurie, otherwiſe called Chironium, of the leſſe Centaurie or Libadium, called Fel Terræ, *i.* the gall of the Earth. Of Triorches, and their vertues.
7. Of Clymenus, Gentian, Lyſimachia, and Parthenius or Motherwort, Mugwort, Ambroſe, Nenuphar, Heraclium, and Euphorbia, with all their vertues medicinable.
8. Of Plantaine, Bugloſſe, Hounds tongue, Oxe eye or May weed, of Scythica, Hippice and Iſchæmon, of Betonie, Cantabrica, Settarwort, of Dittander or Hiberis, of Celendine the greater, Celendine the leſſe or Pilewort, of Canaria, of Elaphoboſcos, of Dictamnum, of Ariſtolochia or Hartwort, how fiſhes will come to it for love of bait, and ſo are ſoone caught. The counterpoyſons againſt ſtinging of ſerpents, by theſe hearbes abovenamed.
9. Of Argemonia, of Agaricke, Echium, Henbane, Vervaine, Blattaria, Lemonia, Cinquefoile, Carot, Perſalata, the Clot Burre, Swines bread or Cyclaminus, Harſtrang: all verie good for the ſting of ſerpents.
10. Of Danewort or Walwort, of Mullin, of Thelyphonon. Remedies againſt the ſting of Scorpions, the biting of Toades and mad Dogs, and generally againſt all poyſons.
11. Receits and remedies againſt headach and diſeaſes of the head.
12. Of Centaurie, Celendine, Panace, and Henbane, and Euphorbium, all ſoveraigne medicines for the eyes.
13. Of Pimpernell or Corchorus, of Mandragoras or Circeium, of Henbane, of Crethmoagrion, of Molybdæna, of Fumiterre, of Galangale, of Floure de lis, of Cotyledon, or Vmbilicus Veneris, of Houſleeke or Sengreene, of Pourcellane, of Groundſwell, of Ephemerum, of great Tazill, of Crow-foot: which affourd medicines againſt the infirmities and diſeaſes of the eyes, eares, noſthrils, teeth, and mouth.

In ſumme, this booke doth yeeld of medicines, ſtories, and obſervations, a thouſand two hundred ninetie and two.

Latine Authors cited.

M. Varro, C. Volgius, Pompeius Lenæus, Sextius Niger, and Iulius Baſſus, who both wrot in Greeke, Antonius Caſtor, and Cornelius Celſus.

Forraine Writers.

Theophraſtus, Apollodorus, Democritus, king Iuba, Orpheus, Pythagoras, Mago, Menander who wrote Biochreſta, Nicander, Homer, Heſiodus, Muſæus, Sophocles, Xanthus, and Anaxilaus.

Phyſicians.

Mneſtheus, Callimachus, Phanias the naturall Philoſopher, Timariſtus, Simus, Hippocrates, Chryſippus, Diocles, Ophion, Heraclides, Hiceſius, Dionyſius, Apollodorus the Tarentine, Praxagoras,

Pliſtonicus, Medius, Dieuches, Cleophantus, Philiſtio, Aſclepiades, Cratevas, Iolla, Eraſiſtratus, Diagoras, Andreas, Mneſicles, Epicharmus, Damion, Theopolemus, Metrodorus, Solon, Lycus, Olympias the midwife of Thebes, Phyllinus, Petreius, Miction, Glaucias and Xenocrates.

IN THE XXVI. BOOKE ARE CONTAINED the medicines for the parts *of mans bodie.*

Chap.

1. Of new maladies, and namely of Lichenes, what they be, and when they began to raign in Italie firſt. Of the Carbuncle, of the white Morphew or Leproſie called Elephantiaſis, and of the Collicke.
2. The praiſe of *Hippocrates.*
3. Of the new practiſe in Phyſicke, of the Phyſician *Aſclepiades*, and by what meanes hee aboliſhed the old manner of practiſe and ſet up a new.
4. The ſuperſtitious follie of Magicke is derided. Alſo a diſcourſe touching the foule tettar called Lichenes, the remedie therof: and alſo of the infirmities of the throat and chawes.
5. Receits and remedies againſt the kings evill: alſo for the diſeaſes of the fingers and the breaſt, and againſt the Cough.
6. Of Mullin, of Cacalia, Tuſſilage or Folefoot, of Bechium, and Sauge, all hearbes for to cure the cough.
7. For the paines of the ſides and chiſt, for the difficultie of breath, and thoſe that cannot take wind but ſitting or ſtanding upright, for the paine of the liver and the heartach, medicines appropriat to the lungs, difficultie of urine, and the cough, for the breaſt, for inward ulcers, for the kidneies and imbecilitie of the liver, to ſtay vomit and yexing, alſo for the pleuriſie and diſeaſe of the ſides and flankes.
8. Of all diſeaſes of the bellie and the parts either within it or neare unto it. How to ſtay the flux thereof, or to make it looſe and ſoluble.
9. Of Peniroyall and Argemone.
10. Of water Lillie or Nenuphar, of abſtinence from *Venus*, of provocation to fleſhly luſt, of Ragwort or Satyrium, called Erythraicum, of Crategis and Syderitis.
11. Generall remedies for infirmities of the feet, anckles, joints, and ſinewes. Remedies againſt diſeaſes that hold and poſſeſſe the whole bodie. Of Mirthryda. Medicines and meanes to procure ſleepe: againſt the palſie, agues with cold fits, feavers or agues incident unto labouring Horſes, Aſſes, and Mules: againſt franticke perſons. Of the hearbe Chamæacta, of Houſleek or Stonecrop, and Pricke-madame, of S. *Antonies* fire.
12. Remedies againſt diſlocations in the joints, againſt the yellow jaundiſe, fellons, fiſtulaes, ſwellings of ventoſitie, burnes, ſcalds, and other diſeaſes, for ſinewes, and to ſtaunch bloud.
13. Of the hearb called Horſe-taile, Nenuphar, Harſtrang, Syderitis: of many other remedies good to reſtraine the flux of bloud: of Stephanomelis and Eriſithale, remedies againſt the wormes.
14. For ulcers, old ſores, and greene wounds: to take away werts, and of the hearb Polycnemon.
15. Manie good experiments either for to provoke or to ſtay the flux of womens monthes: ſoveraigne remedies for the diſeaſes of the matrice: alſo to caſt foorth the fruit within the wombe, or to containe it the full time, for to take away the blemiſhes and ſpots in the skin, and namely of the face, to colour the haire, to cauſe the haire to fall, alſo againſt the ſcab or maunge of fourefooted beaſts.

In ſumme, this booke leadeth you to medicines, ſtories and obſervations, a thouſand two hundred ninetie and two: collected out of

Latine Authors.

M. Varro, C. Volgius, Pompeius Lenæus, Sextius Niger, and Iulius Baſſus who writ both in Greeke, Antonius Caſtor, and Cornelius Celſus.

Forreine

Forraine Writers.

Theophrastus, Apollodorus, Democritus, Iuba, Orpheus, Pythagoras, Mago, Menander the author of Biochresta, Nicander, Homer, Hesiodus, Musæus, Sophocles, Xanthus and Anaxilaus.

Physicians.

Mnestheus, Callimachus the professour of Physicke, Timaristus, Simus, Hippocrates, Chrysippus, Diocles, Ophion, Heraclides, Hicesius, Dionysius, Apollodorus the Tarentine, Praxagoras, Plistonicus, Medius, Dieuches, Cleophantus, Philistio, Asclepiades, Cratenas, Iolla, Erasistratus, Diagoras, Andreas, Mnesicles, Epicharmus, Damion, Theopolemus, Metrodorus, Solon, Lycus, Olympias the midwife of Thebes, Phyllinus, Petreius, Miction, Glaucias and Xenocrates.

¶ IN THE XXVII. BOOKE COMPREHENDETH all other sorts of hearbes.

Chap.

1. The rest of Hearbes.
2. Of Aconitum, and how this hearbe killeth Leopards or Panthers.
3. That God is the creator of all things.
4. Of the hearbe Æthiopis, Ageratum, Aloe, Alcea, Alypum, Alsine, Androsacum, Androsæmon, Ambrosia, Restharrow, Anagyron, and Anonymon.
5. Of the great Burre, of Clivers or Goose grasse, Asplenum, Asclepias or Swallowwort, Aster or Bubonium, Ascyrum or Ascyroeides, Aphace, Alcibium, and Cockes combe.
6. Of Alus.
7. Of sea Weeds or Reits, of Elder, wild Vine, and Wormewood.
8. Of Ballote or stinking Horehound, of Botrys or Oke of Ierusalem, of Brabyla, of Bryon or Corallina, of Bupleuron, and Catanance, of Calla, Circeia, Cirsium and Cratægonum, Thelygonum, Crocodilium, Dogs stone, Chrysolachanum, Cucubalum, and Conferva or the river Spunge.
9. Of the graine called Coccos Gnidia, of Tazill, of Oke searne, of Dryophonum, of Elatine, of Empetrum or Perce-pierre, of Epipactus or Elleborius, of Epimedum, Enneaphyllon, *i.* the nine leafed hearbe, of Osmund or Fearne, of Fenmur Bubulum, *i.* Ox thigh, of Galeopsis or Galeobdolon, of Glaux or Eugalactum.
10. Of Glaucium, of Pæonie, Cudweed or Chamæzelum, of Galedragum, Holcos, Hyosiris, Holosteum, and Hypophæstum.
11. Of Hypoglossa, and Hypecoon, Idæa, Isopyron, Spurge, Pat-delion, Lycopsis, Greimile, &c.
12. Of Medium, Mouse-ear, Myagros, an hearb called Natrix, Othone, Onosma, Onopordos, Toads flax, Woodsoure or Alleluiah, Crowfoot, Knotgrasse, Camomile, Phyteuma, Phyllon, Phellandrion, Phalaris, Polyrrhizon, Proserpinaca or Knotgrasse, Rhacoma, Reseda, and Stœchas.
13. Of Nightshade and Dwale, of Smyrnium, Orpinum, Trichomanes, Thalictrum, Thlaspi, Tragonias, Tragonis and Tragopogos, the serpent Spondylis. To conclude, that some diseases and venomous things be not in all countries.

In summe, herein are comprehended medicines, stories, and notable observations, 702.

Latine Authors cited.

Pompeius Lenæus, Sextius Niger, and Iulius Bassus, who wrate both in Greek; Antonius Castor and Cornelius Celsus.

Greeke Writers.

Theophrastus, Apollodorus, Cittiensis, Democritus, Aristogiton, Orpheus, Pythagoras, Mago, Menander that wrote the Treatise Biochresta, and Nicander.

Physicians.

Mnestheus and his fellowes, as they went in the former booke.

¶ IN

¶ IN THE XXVIII. BOOKE ARE COMPREhended the medicinable vertues from *living creatures.*

Chap.

1. The medicines & vertues obſerved in living creatures.
2. Whether charmes and bare words or characters availe ought in Phyſicke. That prodigious tokens and preſages may take effect in ſome, and may bee averted and made fruſtrat by others.
3. Remedies even in the bodies of men againſt enchauntments and Magicke.
4. Of certain ſorceries, alſo the vertue of a mans ſpittle.
5. The regard of diet for a mans health.
6. Of ſneeſing, the moderation to bee uſed in the act of *Venus* or companie with a woman, of other preſervatives of health.
7. What remedies and medicines a womans bodie doth affourd.
8. The medicinable properties in certaine ſtraunge beaſts, namely, the Elephant, Lion, Cammell, Hyæna, Crocodile, Chamæleon, Skinke, River-horſe, and Once.
9. The medicines which we have from the bodies of wild beaſts and tame of the ſame kind. The vertue of milke, butter, and cheeſe: the obſervations thereto belonging: alſo of fat or greaſe.
10. Remedies received from Bores and Swine, from Goats and wild Horſes: alſo from other beaſts, ſerving to cure all manner of diſeaſes.
11. Other remedies for many kinds of maladies taken from living creatures.
12. For the ſpots and wems in the viſage: for the infirmities of the necke and of the breaſt.
13. Againſt the diſeaſes of the ſtomack, loines, and reines.
14. To ſtay a laske, againſt the looſeneſſe of the ſtomacke, to cure the bloudie flix: the inflations of the bellie, ruptures, the provocation to the ſeege without effect, the broad flat long wormes in the bellie, and the collicke.
15. Againſt the torments and paines in the bladder, againſt the ſtone, the infirmities in the privie parts of man or woman: as alſo in the fundament, and the twiſt or groine, and the cure thereof.
16. For the gout, the falling evill, for thoſe that bee blaſted or ſtrucken with a planet, and bones broken.
17. Againſt Melancholie, and thoſe whoſe braines bee troubled with fanſies, the lethargie, dropſie, wild fire or tettar, and the paines or ach of the ſinewes, apt remedies.
18. To ſtaunch bloud, to cure ulcers or old ſores, cankers, and ſcabs.
19. Medicines appropriat to womens diſeaſes.
20. Strange and wonderous things obſerved in ſundrie beaſts.

In ſumme, here be reported medicines, ſtories, and obſervations, to the number of a hundred eightie and five.

Latine Authours alleadged.

M. Varro, L. Piſo, Fabianus, Verres, Antias, Verrius Flaccus, Cato Cenſorius, Servius Sulpitius, Licinius Macer, Celſus, Maſſurius, Sextius Niger who wrate in Greeke, Bythus the Dyrrhachian, Ophilius the Phyſician, and Granius the Phyſician.

Forreine Writers.

Democritus, Apollonius who wrote a booke intituled Myrſis, Miletus, Artemon, Sextilius, Antæus, Homer, Theophraſtus, Lyſimachus, Attalus, Xenocrates who wrote a booke called Diophros, and Archelaus likewiſe that wrote ſuch another, Demetrius, Sotira, Elephantis, Salpe, and Olympias of Thebes, five women and midwives, Diotimus, Iolla, Miction of Smyrna, Aeſchines the Phyſician, Hippocrates, Ariſtotle, Metrodorus, Icacidas the Phyſician, Heſiodus, Dialcon, Cæcilius, Bion the author of the booke Peri Dynamaan, Anaxilaus, and king Iuba.

¶ IN

¶ IN THE XXIX. BOOKE ARE CONTAINED medecins from other living creatures.

Chap.

1. The firſt beginning and originall of the Art of Phyſicke: when Phyſicians began firſt to viſit patients lying ſicke in their beds: the firſt Phyſicians that practiſed the cure of ſick perſons, by frictions, ointments, baths, hot-houſes, &c. Of *Chryſippus* and *Eraſiſtratus* their courſe and manner of practiſe: of Empiricke Phyſicke: of *Herophilus* and other famous Phyſicians: how often the Art and ſtate of Phyſicke hath altered: the firſt profeſſed Phyſician at Rome; when it was that he practiſed: what opinion the auncient Romans had of Phyſicians: finally the imperfections and faults in that Art.
2. The medecinable vertues and properties obſerved in wooll.
3. The nature of eggs, and the vertues thereof good in Phyſicke.
4. Remedies in Phyſicke received from doggs and other creatures that are not tame but wild: alſo from foules: and namely againſt the ſtings of the venomous ſpiders Phalangia.
5. Of the Oſtrich greace, and the vertues ther-of: of a mad dogg: alſo remedies had from him, a lizard, geeſe, doves, and weaſils.
6. Medecines againſt the falling of the haire, and to make it grow againe: to kill nits: to recover the haire of the eyelids: to cure the dimneſſe and redneſſe, and generally all diſeaſes and accidents of the eyes, as alſo the ſwellings and inflammations in the kernils under the ears.

In ſum, there be medecins and other things worth obſervation in this booke, to the number of five hundred twentie and one.

Latine Authors alledged.

M. Varro, L. Piſo, Verrius Flaccus, Antias, Nigidius, Caſsius Hemina, Cicero, Plautus, Celſus, Sextius Niger who wrote in Greeke, Cæcilius the Phyſician, Metellus Scipio, Ovid the Poet, and Licinius Macer.

Forreine Authours.

Philopator, Homerus, Ariſtotle, Orpheus, Democritus, Anaxilaus.

Phyſicians.

Botrys, Apollodorus, Archidemus, Anaxilaus, Ariſton, Xenocrates, Diſdorus, Chryſippus the Philoſopher, Horus, Nicander, Apollonius of Pitane.

¶ IN THE XXX. BOOKE ARE CONTAINED medecins from living creatures, ſuch as were not obſerved *in the former Booke.*

Chap.

1. The beginning of the blacke Science & Art magicke, when it began, who practiſed it firſt, and who were they that brought it into requeſt and reputation. Alſo the reſt of the medecins taken from beaſts.
2. Sundrie kinds of Magicke: the execrable and curſed parts plaid by *Nero*, and of Magicians.
3. Of Wants or Mouldwarps: of living creatures as well tame as ſavage which affourd remedies, and thoſe are digeſted in order according to the diſeaſes.
4. How to make the breath ſweet: againſt mols and ſpots disfiguring the face: remedies for to cure the diſeaſes of the throat and chaws.
5. Againſt the Kings evill, and namely when the ſwelling is broken and doth run: to eaſe the pain of the ſhoulders, the heart and the parts about it.

Chap.
6. For the diſeaſes of the lungs and liver: alſo to cure the caſting and rejection of bloud upward.
7. Remedies for the bloudie flix, and generally for all diſeaſes of the bellie and the guts.
8. For the gravell and ſtone, for paines of the bladder, for ſwelling of the ſtones and the groine, of apoſtems or ſwellings in the kernels and emunctories.
9. Againſt the gout of the feet and paines of other joynts.
10. Remedies againſt many diſeaſes that hold the whole bodie.
11. Againſt the jaundiſe, the phrenſie, fevers, and dropſie.
12. Againſt the wild fire, carbuncles, ſellons, or uncoms, burns, ſcaldings, and ſhrinking of the ſinews.
13. To ſtaunch bloud, to allay ſwellings in wounds: alſo to cure ulcers, greene wounds, and other maladies, divers remedies, all taken from living creatures.
14. To cure womens ſecret maladies, and to helpe conception.
15. Many receits and remedies huddled togither one with another.
16. Certaine miraculous things obſerved in beaſts.

In ſum, this booke ſheweth unto us medicins and memorable obſervations 54.

Latine Authours cited.

M. Varro, Nigidius, M. Cicero, Sextius Niger who wrate in Greeke, and Licinius Macer.

Forraine writers.

Eudoxus, Ariſtotle, Hermippus, Homer, Apion, Orpheus, Democritus, and Anaxilaus.

Phyſicians.

Botrys, Horus, Apollodorus, Menander, Archimedes, Ariſton, Xenocrates, Diodorus, Chryſippus, Nicander, Apollonius, Pitanæus.

¶ THE XXXI. BOOKE SHEWETH MEDECINES gathered from fiſhes and vvater creatures: alſo it delivereth unto us *ſtraunge and wonderfull things as touching the waters.*

Chap.
1. Admirable matter obſerved in the waters.
2. The difference of waters.
3. The nature and qualitie of waters: how to know good and holeſome waters from them that be naught.
4. The reaſon of ſome waters that ſpring on a ſuddaine, & ſo likewiſe ceaſe and give over.
5. Many hiſtoricall obſervations of waters.
6. The manner of water conduits, and how to draw them from their heads: when and how waters are to bee uſed which naturally are medicinable: how farre forth navigation or ſailing upon the ſalt water is good for the health: medecines made of ſea water.
7. Divers kinds of ſalt: the preparing and making therof, togither with the vertues medicinable of ſalt, and other conſiderations thereto belonging.
8. Of the fiſh Scamber or the Mackrell: of fiſh pickle: of Alex, a kind of brine or fiſh ſauce.
9. The nature of Salt, and the medecins made of it.
10. Sundrie ſorts of nitre, the handling & preparation thereof, the medecines and obſervation to it pertaining.
11. The nature of Spunges.

This booke comprehendeth medicins and notable obſervations 266.

Latine Authors alleadged.

M. Varro, Caſſius of Parma, Cicero, Mutius, Cor. Celſus, Trogus, Ovid, Polybius, and Sornatius.

Forraine Writers.

Callimachus, Cteſias, Eudicus, Theophraſtus, Eudoxus, Theopompus, Polyclitus, Iuba, Lycus, Apion, Epigenes,

Epigenes, Pelops, Apelles, Democritus, Thrasillus, Nicander, Menander the comicall Poet, Attalus, Sallustius, Dionysius, Andreas, Niceratus, Hippocrates, Anaxilaus.

¶ IN THE XXXII. BOOKE ARE CONTAINED other medicins behind, from fishes and vvater creatures.

Chap.

1. Of the fish Echeneis, his wonderfull propertie: of the Torpedo, and the Sea-hare: marveilous things reported of the red sea.
2. The naturall industrie, docilitie, and gentlenesse of some fish: where they will come to hand and take meat at a mans hand: in what countries fishes serve in stead of oracles.
3. Of those fishes that live both on land and water: the medecins and observations as touching Castoreum.
4. Of the sea Tortoise: many vertues medecinable observed in sundrie fishes.
5. Receits of medecins taken from water creatures, digested and set in order according to sundrie diseases; & first against poison and venomous beasts.
6. Of Oisters, Purple shell-fishes, and sea-weeds called Reits: their vertues medicinable.
7. Medecins against the shedding of the haire: how to fetch haire againe: also against the infirmities of eies, ears, teeth, and to amend the unseemly spots in the face.
8. Many medecins set downe togither unorderly.
9. Remedies for the diseases of the liver & sides, stomacke and bellie: others also disorderly put downe.
10. Against fevers and agues of all sorts, and many other infirmities.
11. A rehearsall of all creatures living in the sea, to the number of 166.

In summe, yee have here medecins, stories, and observations, 928.

Latine Authors.

Licinius Macer, Trebius Niger, Sextius Niger who wrote in Greeke, Ovid the Poet, Cassius Hemina, Mecœnas, and L. Atteius.

Forreine Writers.

*K. Iuba, Andreas, *Salpe, Pelops, Apelles of Thasos, Thrasillus, and Nicander.*

* A woman.

¶ THE XXXIII. BOOKE DECLARETH the natures of Mettals.

Chap.

1. In what estimation were the mines of gold at the first in the old world: the beginning of gold rings: the proportion of gold that our auncestors had in their treasure: the degree of knights or gentlemen at Rome: the priviledge to weare gold rings, and who onely might so doe.
2. The courts and chambers of judges or justices at Rome: how often the gentlemen of Rome and men of arms chaunged their title: the presents given to valiant souldiours for their brave service in the warrs: the first crowns of gold that were seene.
3. The auncient use of gold besides, both in men & women: of the golden coine: when copper and brasse money was first stamped: when gold and silver was put into coine: before mony was coined, how they used brasse for exchaunge in old time. At the first taxation and levie made of tribute, what was thought to bee the greatest wealth; and at what rate were the best men sessed. How often and at what times gold grew into credit and estimation.
4. The mines of gold, and how naturally it is found: when the statue or image of gold was first seen: medicinable vertues in gold.
5. Of Borras, and six properties of Borras in matters of physicke: the wonderfull nature that it hath to soder all mettals & give them their perfection.
6. Of Silver, Quick silver, Antimonie, or Alabaster: the drosse or refuse of silver: also the scum or fome of silver called Litharge.
7. Of Vermilion: in what account it was in old time among the Romanes: the invention thereof:

Chap.
thereof: of Cinnabaris or Sangdragon used in painting and Physick: divers sorts of vermillon, and how painters use it.
8. Of Quicksilver artificiall: the manner of gilding silver: of touchstones: divers experiments to trie silver: the sundrie kinds therof.
9. Of mirroirs or looking-glasses: of the silver in Ægypt.
10. Of the excessive wealth of some men in money: who were reputed for the richest men: when it was that at Rome they began to make largesse and scatter money abroad to the commons.
11. Of the superfluitie of coine, and the frugalitie of others as touching silver plate, beds and tables of silver: when began first the making of excessive great and massive platters and chargers of silver.
12. Of silver statues: the graving and chasing in silver, & other workmanship in that mettall.
13. Of Sil, of Azur, of superfice Azur named Nestorianum: also of the Azur called Cœlum: that everie yeer these kinds be not sold at one price.

This booke hath in it of medecins, stories, and observations, 1215.

Latine Authors alleadged.

L. Piso, Antias, Verrius, M. Varro, Cor. Nepos, Messala, Rufus, Marsus the Poet, Buthus, Iulius Bassus, and Sextius Niger, (who wrote both of Physicke in Greeke) and Fabius Vestalis.

Forraine writers.

Democritus, Metrodorus Scepsius, Menæchmus, Xenocrates, and Antigonus, who wrate all three of the feat and skill of graving, chasing, and emboßing in mettall: Heliodorus, who wrote a booke of the rich ornaments and oblations of the Athenians: Pasiteles, who wrote of wonderfull peeces of worke: Nymphodorus, Timæus who wrate of Alchymie or miner all Physicke: Iolla, Apollodorus, Andreas, Heraclydes, Diagoras Botryensus, Archimedes, Dionysius, Aristogenes, Democritus, Mnesicles, Attalus the Physician, Xenocrates the sonne of Zeno, and Theomnestes.

¶ THE XXXIIII. BOOKE TREATETH of other Mettals.

Chap.
1. Mines of Brasse, Copper, Iron, Lead, & Tin.
2. Sundrie kinds of Brasse, namely Corinthian, Deliacke, and Æginetick.
3. Of goodly candlesticks, & other ornaments of temples.
4. The first images made at Rome: the originall of statues: the honour done to men by statues: sundry sorts and divers forms of them.
5. Of statues pourtraied in long robes; and of many others who first erected images upon columnes and pillars at Rome: when they were allowed first at the cities charges: also what maner of statues the first wer at Rome.
6. Of statues without gowne or cassocke, and some other: the first statue pourtraied on horsebacke at Rome: when the time was that all images as well in publicke places as privat houses were abolished at Rome and put downe: what women at Rome were allowed to have their statues; and which were the first erected in publick place by forreine nations.
7. The famous workemen in casting & making images: the excessive price of images: of the most famous & notable colosses or gyantlike images in the cittie of Rome.
8. Three hundred sixtie and six peeces of worke wrought in brasse by most curious and excellent artificers.
9. What difference there is in Brasse: the divers mixtures with other mettals: how to keepe brasse.
10. Of Brasse ore called Cadmia, and for what it is good in Physicke.
11. The refuse or scum of brasse, Verdegris: the skales of brasse and copper, steele, copper rust, or Spanish greene: of the collyrie or eyesalve called Hieracium.
12. Of a kind of Verdegris named Scolecia: of Chalcitis, *i.* red Vitrioll, Mysy, Sory, and Copperose or Vitrioll, *i.* blacke Nil.
13. Of the soile of Brasse named white Nil or Tutia: of Spodium, Antispodium, of Diphryges, and the Trient of Servilius.
14. Of

Chap.
14. Of Iron, and mines of Iron: the difference alſo of Iron.
15. Of the temperature of Iron: the medecinable vertues of Iron, and the ruſt of Braſſe and Iron: the skales of Iron, and the liquid plaſtre named of the Greekes Hygemplaſtrum.
16. The mines of Lead: of white and blacke Lead.
17. Of Tin, of Argentine Tin, and ſome other minerals.
18. Medecins made of Lead and refuſe of Lead, of Lead ore, of Ceruſe or Spaniſh white, of Sandaracha or red Orpiment.

In ſum, here are contained notable matters, ſtories, and obſervations, 815.

Latine Authours cited.

L. Piſo, Antias, Verrius, M. Varro, Meſſala, Rufus, Marſus the Poet, Buthus, Iulius Baſſus, and Sextius Niger, who wrote both in Greeke of Phyſicke, and Fabius Veſtalis.

Forreine Writers.

Democritus, Metrodorus Scepſius, Menechmus, Xenocrates, Antigonus, and Duris, (who all foure wrote of graving, chaſing, and emboſſing mettals, a worke entituled Toreutice:) *Heliodorus, who deſcribed the ornaments and oblations hanged up in Athens: Nymphodorus, Andreas, Heraclides, Diagoras, Botryenſis, Iolla, Apollodorus, Archimedes, Dionyſius, Ariſtogenes, Diomedes, Mneſicles, Xenocrates the ſonne of Zeno, and Theomneſtus.*

IN THE XXXV. BOOKE IS SHEWED IN vvhat account Painting vvas in old time.

Chap.
1. The honour and regard of Pictures in times paſt.
2. In what price Images were of old.
3. When Images were firſt erected and ſet up in publicke place, as alſo in private houſes, with their ſcutcheons and arms: the beginning of Pictures: the firſt draught of Picturs in one ſimple colour: the firſt Painters, and how auncient they were in Italie.
4. Of Roman Painters: the firſt time that Painting and Pictures grew into credit: who they were that drew their victories in colors upon tables, and ſet them forth to be ſeen: and when forreine Pictures began to be of ſome good reckoning at Rome.
5. The art and cunning of drawing pictures: the colours that Painters uſe.
6. Of colours naturall and artificiall.
7. What colours will not abide to be laid wet: what colours they painted withall in old time: at what time firſt the combats of ſword fencers at utterance, were ſet foorth in painted tables to be ſeene.
8. How auncient the art of Painting is, when it began: a catalogue of the excellent workemen in that kind, and how their workemanſhip was prized and eſteemed.
9. The firſt that contended & ſtrove who could paint beſt: alſo who firſt uſed the pencill.
10. Of Pictures ſo lively drawne that birds were deceived therwith: what is the hardeſt point in Painting.
11. The way to ſtill birds that they ſing and chatter not: who was the firſt that deviſed to enamell, or to ſet colours with fire, and with the pencill painted arched rouſs and vaults; and among, the wonderfull prices that Pictures were ſet at in old time.
12. The firſt inventours of potterie: of images made of clay & caſt in moulds: alſo of veſſels made of earth, and their price.
13. Sundrie ſorts of earth for potters: of the duſt or ſand of Puteoli: of other kinds of earth which turne to be hard ſtone.
14. Of walls made by caſting in moulds: alſo of bricke walls, and the manner of making them.
15. Of Brimſtone and Alume, their divers kinds and uſe in Phyſicke.
16. Of ſundrie ſorts of earth, & namely Samia, Eretria, Chia, Selenuſia, Pingitis, and Ampelitis, and the uſe they have in medecins.
17. Sundrie ſorts of chalke for Fullers to ſcoure clothes, to wit, Cimolia, Sarda, Vmbrica, of a kind of earth called Saxum, as alſo that giveth a ſilver color & is called Argentaria.
18. Who

Chap.
18. Who were they that enriched their slaves after they were enfranchised, and who they were of slaves came up and grew to great wealth and power.

Chap.
19. Of the earth that commeth out of the Island Galata: of the earth Clupea: also, of that which commeth from the Balear Islands, and the Isle Ebusa.

In sum, the medecins, histories, and observations in this booke, amount to 956.

Latine Authors alledged.

Messala the Orateur, Messala the elder, Fenestella, Atticus, Verrius, M. Varro, Cor. Nepos, Decius Eculeo, Mutianus, Melissus, Vitruvius, Cassius Severus Longulanus, Fabius Vestalis who also wrote of Painting.

Forraine Writers.

Pasiteles, Apelles, Melanthius, Asclepiodorus, Euphranor, Parasius, Heliodorus who wrote of the pictures and other ornaments set up at Athens, Metrodorus (who likewise wrote of Architecture, to wit Masonrie and Carpentrie:) Democritus, Theophrastus, Apion the Grammarian who also made a booke of Minerall or Chymick Physicke, Nymphodorus, Andreas, Heraclides, Iolla, Apollodorus, Diagoras Botryensis, Archidemus, Dionysius, Aristogenes, Demanes, Mnesicles, Xenocrates the scholler of Zeno, and Theomnestus.

¶ THE XXXVI. BOOKE TREATETH of Stones.

Chap.
1. The nature and propertie of stones: the superfluitie and expense about buildings, of marble.
2. Who first shewed at Rome columns of marble in publicke place.
3. The first that brought columns of marble to Rome out of forrein countries.
4. The first workemen that were commended for cutting in marble: and at what time that invention began.
5. Excellent peeces of worke in marble to the number of 126. The cunning and curious workemen themselves. Of the white marble of the Island Paros. The stately and admirable sepulchre Mausoleum.
6. When they began at Rome to build with marble: who was the first that overcast the outside of walls with marble: at what times this or that kind of marble was taken up in building at Rome: who cut marble first and brought it into leaves or thin plates by cutting: the manner thereof: also of sand.
7. Of the hard stone of Naxos, and Armenia: sundrie kinds of marble.
8. Of the Alabastre marble of Lygdinum and Alabandicum.
9. Of the great obeliske at Thebes in Ægypt, and at Alexandria: of that also which is in the great cirque or shew-place at Rome.

Chap.
10. Of that obeliske which standeth in Mars field at Rome, and serveth for a Gnomon or Stile in a quadrant or dyall.
11. Of a third obeliske at Rome in the Vatican.
12. Of the Pyramides in Ægypt, and a monstrous Sphynx of a wonderfull heigth.
13. Of the Mazes or Labyrinths in Ægypt, the Isle Lemnos, and in Italie.
14. Of hanging gardens made upon terraces: of a great towne where all the houses were built upon vaults and arches seeming to hang in the aire: also of the temple of *Diana* in Ephesus.
15. Of the stately temple of Cyzicum: of a certaine rocke of stone called Fugitive: of an Echo that rendreth the voice seven fold: of an house built without naile or pin: of the sumptuous and woonderfull buildings at Rome.
16. Sundrie kinds of the Loadstone: the medicinable vertues and properties thereof.
17. Of certaine stones which soone eat & consume dead bodies that be laid therein: of others againe that preserve them long: of the stone Asius, and the vertues of it.
18. Of Ivorie digged out of the earth: of stones converted into bones: of stones that represent palms imprinted in them, and of other kinds.

19. Of

Chap.
19. Of Curalius, or a kind of Marqueſite called Pyrites, and the vertues thereof: of the ſtone Oſtracites, and Amiantus & the properties of it: of the ſtone Melitites, and the power thereof: of the Geat and his medicinable properties: of Spunge ſtones: of the ſtone Phrygius and his nature.
20. Of the Bloud-ſtone, and five ſorts of it; and of Schiſtus.
21. Foure kinds of the Ægle ſtone, of the ſtone within the bellie of them called Callimus: of the ſtones Samius & Arabus: alſo of Pumiſh ſtones.
22. Of ſtones meet for to make Apothecaries mortars, of ſoft ſtones, of the ſtone Specularis, & of Flints, of the ſhining ſtone Phengites, of whetſtones, and other ſtones meet for building: of ſtones that will reſiſt the fire and abide all weather and tempeſt.
Chap.
23. Of Ceſterns, of Limeſtone, ſundrie ſorts of ſand, the tempering of ſand and lime for mortar: the ill building of ſome walls: of parget and roughcaſt: alſo of columns and buttreſſes in building.
24. The medicinable vertues of Quickelime, of Maltha, and Plaſtre.
25. Of pavements: when they were firſt uſed at Rome: of terraces and paved flooreslying open to the aire above: of certaine pavements called Græcanica: and when arched and embowed worke firſt began.
26. The firſt invention of glaſſe: the manner of making it of a kind of glaſſe called Obſidianum: ſundrie ſorts of glaſſe in great varietie.
27. Wonderfull operations of fire: the vertues thereof medicinable, and the prodigious ſignifications and preſages given by fire.

In ſum, here you may find medecins, ſtories, and obſervations, in all 523.

Latine Authors.

M. Varro, Cælius, Galba, C. Ictius, Mutianus, Cor. Nepos, L. Piſo, Tubero, Seneca, Fabius Veſtalis, Annius, Fœcialis, Fabius, Cato Cenſorius, & Vitruvius.

Forraine writers.

Theophraſtus, Praxiteles, K. Iuba, Nicander, Sotacus, Sudines, Alexander Polyhiſtor, Apion, Pliſtonicus, Duris, Herodotus, Euemerus, Ariſtagoras, Dionyſius, Artemidorus, Butoridas, Antiſthenes, Democritus, Demoteles, and Lyceas.

IN THE XXXVII. BOOKE IS DECLARED the originall of pretious ſtones.

Chap.
1. The pretious ſtone of *Polycrates* the tyrant, alſo of K. *Pyrrhus*: who were the beſt lapidaries, & could cut excellently well in ſtone: the firſt man that at Rome ware a pretious ſtone upon his finger.
2. The rich ſtones that were ſhewed in the triumph of *Pompey* the Great: the nature and vertues of the Cryſtall ſtone: the coſtly veſſels made thereof, and the ſuperfluous expence that way: when the veſſels of Caſſidoine called Myrrhina, were firſt invented: the waſtfull expence in them: the nature and properties of them: what lies the Greekes have told as touching Ambre.
3. The true originall and beginning of Ambre: the medicinable vertues therof: the ſundrie kinds, and the exceſſive coſt that folke were at to get them: of Lincurium and the properties of it.
Chap.
4. Of Diamonds, and their kinds: their vertues: alſo of Pearls.
5. Of the Hemerauld and the divers ſorts of it: of other greene pretious ſtones cleare and tranſparent.
6. Of the true Opale ſtones, their divers kinds, and which be counterfeit: the meanes how to try them: alſo of divers other rich ſtones.
7. Of Rubies and Carbuncles: which be counterfeit: the wayes to prove whether they be good or no. Alſo of other ardent ſtones like fire.
8. Of the Topaze, and all the kinds: of the Turquois: of other greene ſtones that bee not cleare through.
9. Sundrie ſorts of the Iaſper ſtone.
10. Of certaine pretious ſtones ſet downe in order

Chap.
order according to the Alphabet.
11. Of some pretious stones which take their denomination of the parts of mans bodie: also from other living creatures, & of those which have the names from other things.

Chap.
12. Of other new stones growing naturally: of counterfeit and artificiall stones: of their sundrie forms and fashions.
13. The manner and way how to proove fine stones from other.

In summe, here are to be red of notable matters, worthie histories, and speciall obseruations, to the number of 1300, gathered out of

Latine Authors.

M. Varro, the Records of Romane triumphs, Mecœnas, Iacchus, and Cornelius Bocchus.

Forreine Writers.

K. Iuba, Xenocrates the disciple of Zeno, Sudines, Æschylus, Philoxenus, Euripides, Nicander, Satyrus, Theophrastus, Chares, Philomenes, Democrates, Xenotimus, Metrodorus, Sotacus, Pytheas, Timæus the Sicilian, Niceas, Theochrestus, Asaruba, Mnasea, Theomenes, Ctesias, Mithridates, Sophocles, K. Archelaus, Callistratus, Democritus, Ismenias, Olympicus, Alexander Polyhistor, Apion, Horus, Zoroastres, and Lactalias.

THE SECOND BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

Chap. I.

Whether the World be finite, and but one.

C THE World, and this, which by another name men have thought good to call Heaven (under the pourprise and bending cope whereof, all things are emmanteled and covered) beleeve wee ought in all reason to be a God, eternall, unmeasurable, without beginning, and likewise endlesse. What is without the compasse hereof, neither is it fit for men to search, nor within mans wit to reach and conceive. Sacred it is, everlasting, infinite, all in all, or rather it selfe all and absolute: finite and limited, yet seeming infinite: in all motions, orderly and certaine: howbeit in shew and judgement of man, uncertaine: comprehending and containing all whatsoever, both without and within: Natures work, and yet very Nature it
D selfe, producing all things. Great follie it is then, and meere madnesse, that some have devised and thought in their mind to measure it; yea, and durst in writing set down the dimensions thereof: that others againe, by occasion hereupon taken or given, have delivered and taught, That worlds there were innumerable: as if we were to beleeve so many natures as there were Heavens: or if all were reduced to one, yet there should bee so many sunnes and moones nevertheless, with the rest also of those unmeasurable and innumerable starres in that one: as though in this pluralitie of worlds we should not alwaies meet with the same question still at every turne of our cogitation, for want of the utmost and some end to rest upon: or, if this infiniteness could possibly be assigned to Nature, the worke-mistresse and mother of all; the same might not bee understood more easily in that one Heaven which we see; so great a worke especially and frame as
E it is. Now surely a fantasticall follie it is of all other follies, to goe forth of it, and so to keepe a seeking without, as if all things within were well and cleerely knowne alreadie: as who would say, a man could take the measure just of any third thing, who knoweth not his owne: or the mind of man see those things, which the very world it selfe may not receive.

Chap. II.

Of the forme and figure of the World.

F THat the forme of heaven is round, in fashion of an absolute and perfect globe, the name thereof principally, and the consent of all men agreeing to call it in Latine *Orbis*, *i.* a roundle; as also many naturall reasons, do evidently shew: to wit, not only for that such a figure every way falleth and bendeth upon it selfe, is able to beare and uphold it selfe, includeth and compriseth it selfe, having need thereto of no joints, as finding in any part therof no end nor beginning: or becaus this forme agreeth best to that motion, whereby ever and anon it must turne about:

(as hereafter it shall appeare) but also because the eiesight doth approve the same: in that, looke G which way soever you will thereupon, it seemeth to bend downeward, round and even on all sides, shewing a just Hemisphere; a thing not incident possibly to any other figure.

Chap. III.

Of the motion of Heaven.

THat the World thus framed, in a continuall and unceassant circuit, with unspeakeable swiftnesse turneth round about in the space of foure and twentie houres, the rising and setting ordinarily of the sun hath left cleere and doubtlesse. Now, whether it being in height infinite, and therefore the sound of so huge a frame, whiles H it is whirled about, and never resteth in that revolution, cannot be heard with our eares, I cannot so easily resolve and pronounce: no more I assure you, than I may avouch the ringing of the starres that are driven about therewith, and roll withall their owne spheres: or determine, that as the heaven mooveth, it doth represent indeed a pleasant and incredible sweet harmonie both day and night: although to us within, it seemeth to passe in silence. That there be imprinted therein the pourtraicts of living creatures, and of all things besides without number, as also that the bodie thereof is not all over smooth and slicke (as we see in birds egs) which excellent authors have tearmed *Tenerum*, is shewed by good arguments: for that by the fall of naturall seeds from thence of all things, and those for the most part blended and mixed one with another, there are engendred in the world and the sea especially, an infinite number of strange I and monstrous shapes. Over and besides, our eiesight testifieth the same; whiles in one place there appeareth the resemblance of a waine or chariot, in another of a beare, the figure of a bull in this part, of a *letter in that, and principally the middle circle over our head, more white * Δ than the rest, toward the North pole.

Chap. IIII.

Why the World or Heaven is called Mundus.

VErily for mine owne part, moved I am and ruled by the generall consent of all nations. For, the World, which the Greekes by the name of ornament, called K κοσμος, wee for the perfect neatnesse and absolute elevancie thereof, have tearmed *Mundus*. And without all question, Heaven wee have named *Cœlum*; as it were, Engraven and garnished, according as *M. Varro* interpreteth it. And hereto maketh much the orderly ranke of things therein, and namely the circle called *Signifer*, or the Zodiake, set forth and divided by the formes of twelve living creatures therein portraied: together with the manner of the sunnes race throughout them, keeping ever the same course still, for so many ages past.

Chap. V. L

Of the foure Elements.

NEither see any doubt made as touching the elements, That they bee foure in number. The highest, Fire: from whence are those bright eies of so many shining starres. The next, Spirit, which the Greekes and our countrimen by one name called Aire: Vitall this element is, and as it giveth life to all things, so it soone passeth through all, and is intermedled in the whole: by the power wherof, the Earth hangeth poised and ballanced just in the middest, together with the fourth element, of the Waters. Thus by a mutuall intertainement one of another, divers natures are linked and knit together: so as the light elements are kept in and restrained by certaine weights of the heavier, that they flie not out: and contrariwise, the massier bee held up, that they M fall not downe, by meanes of the lighter, which covet to be aloft. So, through an equall endevor to the contrarie, each of them hold their owne, bound as it were by the restlesse circuit of the very world: which, by reason that it runneth evermore upon it selfe, the earth falleth to bee lowest, and the middle of the whole: and the same hanging steadily by the poles of the Heaven, peiseth

those

A thoſe elements by which it hangeth in a counterballance. Thus it alone reſteth vnmooveable, whiles the whole frame of the world turneth about it: and as it is knit and united by all, ſo all reſt and beare upon the ſame.

Chap. VI.

Of the ſeuen Planets.

B Between the earth and heaven, there hang in the ſame ſpirit or element of aire abovenamed, ſeven ſtarres, ſevered one from another, and diſtant aſunder certaine ſpaces, which of their variable motion we call wandering planets, whereas indeed none ſtray and wander leſſe than they. In the middeſt of them the Sunne taketh his courſe, as being the greateſt and moſt puiſſant of all the reſt: the very ruler, not of times and ſeaſons onely, and of the earth, but alſo of the Starres and Heaven it ſelfe. Beleeve we ought, this Sunne to be the very life, and (to ſpeake more plainely) the ſoule of the whole world, yea, and the principall governance of nature: and no leſſe than a God or divine power, conſidering his workes and operations. He it is that giveth light to all things, and riddeth them from darkeneſſe: hee hideth the other ſtarres, and ſheweth them againe: he ordereth the ſeaſons in their alternative courſe: he tempereth the yeere, ariſing ever freſh and new againe, for the benefite and good of the world. The lowring dimneſſe of the skie he diſpatcheth, yea, and cleareth the darke miſts and clowdineſſe of mans mind: to other ſtars likeC wiſe he lendeth out his owne light. Moſt excellent, right ſingular hee is, as ſeeing all, and hearing all. For this, I ſee, is the opinion of *Homer* (the prince of learning) as touching him alone.

Chap. VII.

Of God.

D Suppoſe therefore that to ſeeke after any ſhape of God, and to aſſigne a forme and image to him, bewraieth mans weakeneſſe. For God, whoſoever he be [if haply there be any other, but the very world] and in what part ſoever reſiant, all ſenſe he is, all ſight, all hearing: hee is all life, all ſoule, all of himſelfe. And verily to beleeve that there be gods innumerable, and thoſe according to mens vertues and vices, to wit, Chaſtitie, Concord, Vnderſtanding, Hope, Honour, Clemencie, Faith; or (as *Democritus* was of opinion) That there are two gods onely, and no more, namely, Puniſhment, and Benefite: theſe conceits, I ſay, make mens idleneſſe and negligence the greater. But all commeth of this, That fraile and craſie mortall men, remembring well their owne infirmitie, have digeſted theſe things a part, to the end that each one might from thence chuſe to worſhip and honour that whereof he ſtood in need moſt. And hereupon it is, that in ſundrie nations we find the ſame gods named diverſly, according to mens devotion: and in one region ye ſhall have innumerable gods. The infernall powers beneath likewiſe, yea, and many plagues have been raunged by themſelves, and E reckoned for gods in their kind, whiles with trembling feare wee deſire that they were pacified. Which ſuperſtition, hath cauſed a chappel to be dedicated to the Fever, in the mount Palatium, even by publick order from the State: likewiſe an altar to *Orbona*, neere the temple of *Lares*: beſides another erected to Bad fortune in Eſquiliæ. And thereby we may conceive that there are a greater number of gods in heaven above, than of men upon earth: ſince that every one of their own accord make ſo many gods as they liſt, fitting themſelves with *Iunoes* and *Genij* for their patrons. Now, certain nations there be that account beaſts, yea, & ſome filthy things, for gods; yea, and many other matters more ſhamefull to be ſpoken: ſwearing by ſtinking meats, by garlicke, and ſuch like. But ſurely, to beleeve that gods have contracted marriage, & that in ſo long continuance of time no children ſhould bee borne betweene them: alſo that ſome are aged, and ever hoarie and gray: others againe young and alwaies children: that they be blacke of colour and complexion, winged, lame, hatched of egs, living and dying each other day; are meere fooleries, little better than childiſh toies. But it paſſeth and exceedeth all ſhameleſſe impudencie, to imagine adulteries among them: eſtſoones alſo chiding, ſcolding, hatred, and malice: and more than that, how there bee gods, patrones of theft and wickedneſſe. Whereas in very deed, a god

unto a man is he, that helpeth a man: and this is the true and direct pathway to everlasting glorie. In this way went the noble Romans in old time: and in this tract at this day goeth, with heavenly pace, *Vespasian Augustus*, both he and his children: *Vespasian*, I say, the most mightie ruler of the whole world: whiles hee relieveth the afflicted State of the Romane Empire and Commonweale. And this is the most auncient manner of requitall to such benefactours, That they should be canonized gods. And hereof came the names as well of all other gods, as of the stars and planets (which I have mentioned before) in recognisance of mens good deserts. As for *Iupiter* verily and *Mercurie*, and other princes raunged among the gods, who doubteth that they were called otherwise among themselves? and who confesseth not how these bee celestiall denominations, to expresse and interprete their nature? G

Now, That the soveraigne power and deitie, whatsoever it is, should have regard of mankind, is a toy and vanitie worthie to be laughed at. For can wee chuse but beleeve, can wee make any doubt, but needs that Divinitie and Godhead must be polluted with so base and manifold a ministerie? And hardly in manner may it be judged, whether of the twaine be better and more expedient for mankind to beleeve, that the gods have regard of us; or to bee persuaded that they have none at all: considering, That some men have no respect and reverence at all of the gods, others againe so much, as it is a very shame to see their superstition. Addicted these are and devoted to serve them by forraine magicke ceremonies: they weare their gods upon their fingers in rings, yea, they worship and adore monsters: they condemne and forbid some meats; yet they devise others for them. Impose they doe upon them hard and vengible charges to execute, not suffering them to rest and sleepe in quiet. They chuse neither mariages, nor children, ne yet any one thing els, but by the approbation and allowance of sacred rites and mysteries. Contrariwise, others there are so godlesse, that in the very Capitoll they use deceit, and forsweare themselves even by *Iupiter*, for all that he is readie to shoot his thunderbolts. And as some speed well ynough with their wicked deeds and irreligion: so others againe feele the smart and are punished by the saints whom they adore, and the holy ceremonies which they observe. H

*Here let Christians take heed, and bee thankfull to God for the light revealed unto them out of the holy scriptures.

Howbeit, betweene both these opinions, men have found out to themselves a middle godhead and divine power, to the end that wee should give still a more uncertaine conjecture as touching God indeed. For, throughout the whole world, in every place, at all times and in all mens mouths, Fortune alone is sought unto and called upon: she only is named and in request; shee alone is blamed, accused, and endited. None but she is thought upon; she only is praised, she only is reproved and rebuked: yea, and worshipped is shee with railing and reprochfull tearms: and namely when she is taken to be wavering and mutable: and of the most sort supposed also blind: roving at randon, unconstant, uncertaine, variable, and favouring the unworthie: whatsoever is laid forth, spent and lost, whatsoever is received, woon & gotten: all that comes in, all that goes out, is imputed to Fortune: and in all mens reckonings and accounts, she makes up the booke, and sets all streight. So abject wee are, so servile also and enthralled to Lots, that even the very chaunce of Lots is taken for a god, than which nothing maketh us more doubtfull and ignorant of God. K

Now there are another sort, that reject Fortune and Chaunce both, & wil not abide them: but attribute the events and issues of things, to their owne severall starres, and goe by the fatall horoscope or ascendent of their nativitie: affirming that the same shal ever befall, which once hath been set downe and decreed by God: so as hee for ever after may sit still and rest himselfe. And this opinion beginneth now to settle and take deepe root, insomuch as both the learned, and also the rude and ignorant multitude, run that way on end. From hence (behold) proceed the warnings & admonitions of lightenings, the fore-knowledge by Oracles, the predictions of Soothsaiers, yea, and other contemptible things not worthie to bee once spoken of; as sneesing, and stumbling with the foot, are counted matters of presage. *Augustus Cæsar* of famous memorie hath made report and left in writing, that his left foot shoe was untowardly put on before the right, on that very day, when hee had like to have miscarried in a mutinie among his souldiors. L

Thus these things every one doe enwrap and entangle silie mortall men, void of all forecast and true understanding: so as this only point among the rest remaineth sure and certain, namely, That nothing is certaine: neither is there ought more wretched and more prowd withall, than man. For all lively creatures els take care onely for their food: wherein Natures goodnesse and bountie of it selfe is sufficient: which one point verily is to bee preferred before all good things M

A things whatſoever, for that they never thinke of glorie, of riches, of ſeeking for dignities and promotions, nor over and above, of death. Howbeit, the beleefe that in theſe matters the gods have care of mens eſtate, is good, expedient, and profitable in the courſe of this life: as alſo that the vengeance and puniſhment of malefactours may well come late (whiles God is buſily occupied otherwiſe in ſo huge a frame of the world) but never miſſeth in the end: and that man was not made next in degree unto God, for this, That he ſhould bee welneere as vile and baſe as the bruit beaſts. Moreover, the cheefe comfort that man hath, for his imperfections in nature, is this, That even God himſelfe is not omnipotent, and cannot do all things. For neither is he able to worke his owne death, would hee never ſo faine, as man can doe when hee is wearie of his life; the beſt gift which he hath beſtowed upon him, amid ſo great miſeries of his life: nor endow
B mortall men with everlaſting life: ne yet recall, raiſe, and revive thoſe that once are departed and dead: nor bring to paſſe, that one who lived, did not live: or hee that bare honourable offices, was not in place of rule and dignitie. Nay, he hath no power over things done and paſt, ſave only oblivion: no more than he is able to effect (to come with pleaſant reaſons and arguments to prove our fellowſhip therin with God) that twiſe tenne ſhould not make twentie: and many ſuch things of like ſort. Whereby (no doubt) is evidently proved, the power of Nature, and how it is ſhee, and nothing els, which wee call God. I thought it not impertinent thus to divert and digreſſe to theſe points, ſo commonly divulged, by reaſon of the uſuall and ordinarie queſtions as touching the Eſſence of God.

C

Chap. VIII.

Of the nature of Planets, and their circuit.

LEt us returne now to the reſt of Natures workes. The Starres which we ſaid were fixed in the heaven, are not (as the common ſort thinketh) aſſigned to every one of us; and appointed to men reſpectively: namely, the bright and faire for the rich; the leſſe for the poore: the dimme for the weak, the aged and feeble: neither ſhine they out more or leſſe, according to the lot & fortune of every one, nor ariſe they each one together with that perſon unto whom they are appropriate; and die likewiſe with the ſame: ne yet as they ſet and fall, do they ſignifie that any bo-
D die is dead. There is not, ywis, ſo great ſocietie betweene heaven and us, as that together with the fatall neceſſitie of our death, the ſhining light of the ſtarres ſhould in token of ſorrow go out and become mortall. As for them, the truth is this; when they are thought to fall, they doe but ſhoot from them a deale of fire, even of that abundance and overmuch nutriment which they have gotten by the attraction of humiditie and moiſture unto them: like as we alſo obſerve daily in the wikes and matches of lampes or candles burning, with the liquor of oile. Moreover, the cœleſtial bodies, which make and frame the world, and in that frame are compact and knit together, have an immortall nature: and their power and influence extendeth much to the earth: which by their effects and operations, by their light and greatneſſe might be knowne, notwithſtanding they are ſo high and ſubtile withall, as we ſhall in due place make demonſtration. The
E manner likewiſe of the heavenly Circles and Zones ſhall bee ſhewed more fitly in our Geographicall treatiſe of the earth, for as much as the conſideration thereof appertaineth wholly thereunto: onely we will not put off, but preſently declare the deviſers of the Zodiake, wherein the ſignes are.

The obliquitie and crookedneſſe thereof, *Anaximander* the Mileſian is reported to have obſerved firſt, and thereby opened the gate and paſſage to Aſtronomie, and the knowledge of all things: and this happened in the 58 Olympias. Afterwards *Cleoſtratus* marked the ſignes therein, and namely thoſe firſt of *Aries* and *Sagitarius*. As for the Sphere it ſelfe, *Atlas* deviſed long before. Now for this time we will leave the very bodie of the ſtarrie heaven, and treat of al the reſt betweene it and the earth.

F Certaine it is, that the Planet which they call *Saturne*, is the higheſt; and therefore ſeemeth leaſt: alſo that hee keepeth his courſe, and performeth his revolution in the greateſt circle of all: and in thirtie yeeres ſpace at the ſooneſt, returneth againe to the point of his firſt place. Moreover, that the mooving of all the Planets, and withall of Sunne and Moone, go a contrarie courſe unto the ſtarrie heaven, namely, to the left hand, (*i.* Eaſtward:) whereas the ſaid heaven alwaies *Saturne.*

hasteneth to the right[*i.* Westward.] And albeit in that continual turning with exceeding celeri- G
tie, those planets be lifted up aloft, and carried by it forcible into the West, and there set: yet by a contrarie motion of their owne, they passe every one through their severall waies Eastward; and all for this, that the aire rolling ever one way, and to the same part, by the continuall turning of the heaven, should not stand still, grow dull, and as it were congealed, whiles the globe thereof resteth idle; but dissolve and cleave, parted thus and divided, by the reverberation of the contrarie beames, and violent crosse influence of the said planets. Now, the Planet *Saturne* is of a
Iupiter. cold and frozen nature, but the circle of *Iupiter* is much lower than it, and therefore his revolution is performed with a more speedie motion, namely, in twelve yeares. The third, of *Mars*, which
Mars. some call the Sphere of *Hercules*, is firie and ardent, by reason of the Sunnes vicinitie, and well neere in two yeares runneth his race. And hereupon it is, that by the exceeding heat of *Mars*, and H
the vehement cold of *Saturne*, *Iupiter* who is placed betwixt, is well tempered of them both, and
The Sunne. so becommeth good & comfortable. Next to them is the race of the Sunne, consisting verily of 360 parts [or degrees:] but to the end that the observation of the shaddowes which hee casteth, may returne againe just to the former markes, five daies be added to every yeere, with the fourth part of a day over and above. Whereupon, every fift yeere leapeth, and one odde day is set to the rest: to the end that the reckoning of the times and seasons might agree unto the course of
Venus. the Sunne. Beneath the Sunne a goodly faire starre there is, called *Venus*, which goeth her compasse, wandering this way and that, by turnes: and by the very names that it hath, testifieth her emulation of Sunne and Moone. For all the while that shee preventeth the morning, and riseth Orientall before, she taketh the name of *Lucifer* (or Day-starre,) as a second sun hastening the I
day. Contrariwise, when shee shineth from the West Occidentall, drawing out the day light at length, and supplying the place of the Moone, shee is named *Vesper*. This nature of hers, *Pythageras* of Samos first found out, about the 42 Olympias: which fell out to bee the 142 yeere after the foundation of Rome. Now this planet, in greatnesse, goeth beyond all the other five: and so cleere and shining withall, that the beames of this one starre cast shaddowes upon the earth. And hereupon commeth so great diversitie and ambiguitie of the names thereof: whiles some haue called it *Iuno*, others *Isis*, and othersome the Mother of the gods. By the naturall efficacie of this starre, all things are engendred on earth. For whether she rise East or West, she sprinkleth all the earth with dew of generation, and not onely filleth the same with seed, causing it to conceive, but stirreth up also the nature of all living creatures to engender. This planet goeth through the K
circle of the Zodiake in 348 daies, departing from the sunne never above 46 degrees, as *Timæus* was of opinion. Next unto it, but nothing of that bignesse and powerfull efficacie, is the starre
Mercurie. *Mercurie*, of some cleped *Apollo*: in an inferiour circle hee goeth, after the like manner, a swifter course by nine daies: shining sometimes before the sunne rising, otherwhiles after his setting, never farther distant from him than 23 degrees, as both the same *Timæus* and *Sosigenes* doe shew. And therefore these two planets have a peculiar consideration from others, and not common with the rest abovenamed. For those are seene from the sunne a fourth, yea, and third part of the heaven: oftentimes also in opposition full against the sunne. And all of them have other greater circuits of full revolution, which are to be spoken of in the discourse of the great yeare.

L

Chap. IX.

Of the Moones nature.

The Moone. BVt the planet of the Moone, being the last of all, most familiar with the earth, and devised by Nature for the remedie of darknesse, outgoeth the admiration of all the rest. She with her winding and turning in many and sundrie shapes, hath troubled much the wits of the beholders, fretting and fuming, that of this star, being the neerest of all, they should be most ignorant; growing as it doth, or els waining, evermore. One while bended pointwise into tips of horns: another whiles divided just in the halfe, and anon againe in compasse round: spotted sometime and M
darke, and soone after on a suddain exceeding bright: one while big and full, and another while all at once nothing to be seene. Sometime shining all night long, and otherwhiles late it is ere she riseth: she also helpeth the sunnes light some part of the day: eclipsed, and yet in that eclipse to be seene. The same at the moneths end lieth hidden, at what time (it is supposed) shee labou-

reth

A reth and travaileth not. At one time yee shall see her below, and anon aloft: and that not after one manner, but one while reaching up close to the highest heaven, and another while readie to touch the mountains: sometimes mounted on high into the North, & sometime cast downe below into the South. Which severall constitutions and motions in her, the first man that observed, was *Endymeon*: and therupon the voice went, That he was enamoured upon the Moone. Certes, thankfull we are not, as we ought to be, unto those who by their travaile and carefull endevor, have given us light in this Light. But delighted rather we are wonderously (such is the pestilent wit and wicked disposition of man) to record in Chronicles, bloudshead and murders: that leaud acts and mischeevous deeds should be knowne of them, who otherwise are ignorant of the world it selfe. Well, to proceed, the Moone being next to the centre, and therfore of least
B compasse, performeth the same course and circuit in seven and twentie daies, and one third part of a day: which *Saturne* the highest planet runneth (as we said before) in thirtie yeers. After this, making stay in conjunction with the Sun two daies, forth she goeth, and by the thirtieth day at the most, returneth to the same point and ministerie againe: the mistresse, if I may so say, and the teacher of all things Astronomicall, that may be knowne in heaven. Now by her meanes are we taught that the yeare ought to be divided into twelve moneths: for as much as, the Moone meeteth or overtaketh the Sun so many times before hee returneth to the same point where he began his course. Likewise that shee looseth her light (as the rest of the planets) by the brightnes of the Sunne when shee approcheth neere. For borrowing wholly of him her light, shee doth
C shine: much like to that which we see glittering & flying too and fro in the reflection and reverberation of the Sunne-beames from the water. And hereupon it is, that shee, by her more mild and unperfect power dissolveth, yea and encreaseth, so great moisture as she doth; which the Sun beames may consume. Hence it commeth also, that her light is not even and equall in sight, because then only when she is opposite unto the Sunne, she appeareth full: but all other daies she sheweth no more to us here on earth, than she conceiveth light of the Sunne. In time verily of conjunction or change, she is not seene at all: for that whiles she is turned away, all the draught of light, she casteth thither backe againe, from whence shee received it. Now, that these planets are fed doubtlesse with earthly moisture, it is evident by the Moone: which so long as she appeareth by the halfe in sight, never sheweth any spots, because as yet shee hath not her full power of
D light sufficient, to draw humour unto her. For these spots bee nothing els but the dregs of the earth, caught up with other moisture among the vapors.

Chap. X.

Of the Sunne and Moones eclipse: and of the Night.

MOreover, the eclipse of the Moone and Sunne (a thing throughout the universall contemplation of Nature most mervellous, and like a strange and prodigious wonder) doth shew the bigneſse and shadow of these two planets. For
E evident it is, that the Sun is hidden by the comming betweene of the Moon: and the Moone again by the opposition of the Earth: also that the one doth quit the other, in that the Moone by her interposition bereaveth the Earth of the Sunnes raies, and the Earth again doth the semblable by the Moone. Neither is the Night any thing els but the shade of the Earth. Now the figure of this shaddow resembleth a pyramis, pointed forward, or a top turned upside downe: namely, when as it falleth upon it with the sharp end thereof, nor goeth beyond the heights of the Moone; for that no other starre is in that maner darkened: and such a figure as it, alwaies endeth point-wise. And verely, that shaddows grow to nothing in great space of distance, appeareth by the exceeding high flight of some foules. So as the confines of these shadowes, is the utmost bound of the aire, and the beginning of the fire. Above the Moone all is pure and lightsome continually. And we in the night doe see the starrs,
F as candles or any other lights from out of darknes. For these causes also the Moone in the night season is eclipsed onely. But the reason why the Sunne and Moone are not both in the eclipse at set times and monthly, is the winding obliquitie of the Zodiake, and the wandering turnings of the Moone one while farre South, and another while as much North (as hath been said:) and for that these planets do not alwaies in their motion meet just in the points of the eclipticke line, to wit in the head or taile of the Dragon.

G

Chap. XI.

Of the magnitude of Starres.

THe reason of this lifteth up mens minds into heaven: and as if they beheld and looked downe from thence, discover unto them, the magnitude of the three greatest parts of the whole world. For the Sunnes light could not wholly be taken away from the earth, by the Moone comming betweene, in case the earth were bigger than the Moone. But the huge greatnesse of the Sun is more certainely knowne, both by the shadow of the Earth, and the bodie of the Moone: so as it is needlesse to search and inquire into the largenesse thereof, either by proofe of eiesight, H or by conjecture of the mind. How unmeasurable it is, appeareth evidently by this, That trees which are planted in limits from East to West, casteth shaddowes equall in proportion; albeit they be never so many miles asunder in length: as if the Sunne were in the middest of them all. This appeareth also about the time of the equinoctiall in all regions meridionall, when the sun shineth directly plumbe over mens heads, and causeth no shadow. In like manner, the shaddows of them that dwell Northerly under the Solstitiall circle in summer, falling all at noone-tide, Northward, but at sun rising, Westward, doing the same demonstration. Which possibly could not be, unlesse the sunne were farre greater than the earth. Moreover, in that, when he riseth, hee surpasseth in breadth the hill Ida, compassing the same at large both on the right hand and the left, and namely, being so farre distant as he is. The eclipse of the Moone doth shew also the big- I nesse of the Sun, by an infallible demonstration; like as himselfe eclipsed, declareth the littlenes of the earth. For whereas there be of shadows three formes and figures: and evident it is, that if the darke materiall bodie which casteth a shadow, bee equall in bignesse to the light, then the shaddow is fashioned like a columne or piller, and hath no point at the end: if it bee greater, it yeeldeth a shadow like a top directly standing upon the point, so as the nether part therof is narrowest, and then the shadow likewise is of infinite length: but if the said bodie bee lesse than the light, then is represented a pyramidall figure like an hey-cock, falling out sharpe pointed in the top; which manner of shadow appeareth in the Moones eclipse: it is plaine, manifest, and without all doubt, that the sunne is much bigger than the earth. The same verily is seene by the secret and covert proofes of Nature it selfe. For why in deviding the times of the yeere, departeth the K Sunne from us in the winter? marry, even because by meanes of the nights length and coolenesse, he would refresh the earth, which otherwise no doubt he should have burnt up: for, it notwithstanding, he burneth it in some measure, so excessive is the greatnesse thereof.

Chap. XII.

The inventions of men as touching the observation of the heavens.

THe reason verily of both eclipses, the first Romane that published abroad and divulged, was *Sulpitius Gallus*, who afterwards was Consull, together with *M. Marcellus*: but at that time being a Colonell, the day before that king *Perseus* was van- L quished by *Paulus*, he was brought forth by the Generall into open audience before the whole hoast, to fore-tell the eclipse which should happen the next morrow: whereby he delivered the armie from all pensiveneſſe and fear, which might have troubled them in the time of battaile, and within a while after hee compiled also a booke thereof. But among the Greekes, *Thales Milesius* was the first that found it out, who in the 48 Olympias, and the fourth yeere thereof, did prognosticate and foreshew the Sunnes eclipse that happened in the raigne of *Halyattes*, and in the 170 yeere after the foundation of the citie of Rome. After them, *Hipparchus* compiled his Ephemerides, containing the course and aspects of both these planets, for sixe hundred yeares ensuing: comprehending withall the moneths according to the calculation and reckonings of sundrie nations, the daies, the houres, the situation of places, the M aspects, and latitudes of divers townes and countries; as the world will beare him witnesse: and that no lesse assuredly, than if he had been privie to Natures counsels. Great persons and excellent these were doubtlesse, who above the reach of all capacitie of mortall men, found out the reason of the course of so mightie starres and divine powers: and whereas the silie mind of men

was

A was before ſett and to ſeeke, fearing in theſe eclipſes of the ſtarres ſome great wrong & violence, or death of the planets, ſecured them in that behalfe: in which dreadfull feare ſtood *Steſichorus* and *Pindarus* the poets (notwithſtanding their loftie ſtile,) and namely at the eclipſe of the Sun, as may appeare by their poemes. As for the Moone, mortall men imagine that by Magicke ſorcerie, and charmes, ſhe is inchaunted, and therfore helpe her in ſuch a caſe when ſhe is eclipſed by diſſonant ringing of baſons. In this fearefull fit alſo of an eclipſe, *Nicias* the Generall of the Athenians (as a man ignorant of the courſe thereof) feared to ſet ſaile with his fleet out of the haven, and ſo greatly endaungered and diſtreſſed the ſtate of his countrie. Faire chieve yee then for your excellent wit, ô noble Spirits, interpretours of the heavens, capable of Natures workes, and the deviſers of that reaſon whereby ye have ſurmounted both God and man. For who
B is he, that ſeeing theſe things, and the paineful ordinarie travels (ſince that this tearme is now taken up) of the ſtarres; would not beare with his owne infirmitie, and excuſe this neceſſitie of being borne to die? Now, for this preſent I will breefely and ſummarily touch thoſe principall points which are confeſſed and agreed upon as touching the ſaid eclipſes, having lightly rendered a reaſon thereof in moſt needfull places: For neither ſuch prooving and arguing of theſe matters, belongeth properly to our purpoſed worke; neither is it leſſe wonder to bee able to yeeld the reaſons and cauſes of all things, than to be reſolute and conſtant in ſome.

Chap. XIII.

❧ *Of Eclipſes.*

C

CErtaine it is, that all eclipſes in 222 moneths have their revolutions, and return to their former points: as alſo that the Sunnes eclipſe never happeneth but about the change of the Moone, namely, either in the laſt of the old, or firſt of the new, which they call the Conjunction: and that the Moone is never eclipſed but in the full, and alwaies ſomewhat prevent[ing] the former eclipſe. Moreover, that every yeere both planets are eclipſed at certain daies and hours under the earth. Neither be theſe eclipſes in all places ſeene, when they are above the earth: by reaſon ſometimes of cloudie weather, but more often, for that the globe of the earth hindereth the ſight of the bending convexitie of the heaven. Within theſe two hundred yeares found out it
D was by the wittie calculation of *Hipparchus*, that the Moone ſometime was eclipſed twiſe in five moneths ſpace, and the ſunne likewiſe in ſeven. Alſo that the Sunne and Moone twice in thirtie daies were darkened above the earth: howbeit ſeene this was not equally in all quarters, but of divers men in divers places: and that which maketh mee to marvell moſt of all in this wonder, is this, that when agreed it is by all, that the Moone light is dimmed by the ſhaddow of the earth, one while this eclipſe happeneth in the Weſt, and another while in the Eaſt: as alſo, by what reaſon it happened, that ſeeing after the Sunne is up, that ſhaddow which dusketh the light of the Moone, muſt needs be under the earth: it fell out once, that the Moone was eclipſed in the Weſt, and both planets to be ſeen above the ground in our horiſon. For that in twelve daies both theſe lights were miſſing, and neither Sun nor Moone were ſeene: it chaunced in our time, when
E both the *Veſpaſians* (Emperors) were Conſuls, the father the third time, and the ſon the ſecond.

Chap. XIIII.

❧ *Of the Moones motion.*

CLeare it is, that the Moone alwaies in her encreaſing, hath the tips of her hornes turned from the Sunne toward the Eaſt: but in the waine, contrariwiſe Weſtward. Alſo that ſhee ſhineth (the firſt day of her apparition) $\frac{1}{24}$ parts, and the 24 part of one houre, and ſo riſeth in proportion the ſecond day forward unto the full: and likewiſe decreaſeth in the ſame manner to the change. But alwaies ſhe is
F hidden in the chaunge within foureteene degrees of the Sunne. By which argument wee collect, That the magnitude of the other planets is greater than the Moones, for as much as they appeare otherwhiles when they be but ſeven degrees off. But the cauſe why they ſhew leſſe, is their altitude: like as the fixed ſtarres, which by reaſon of the Sunnes brightneſſe are not ſeene in the day time: whereas indeed they ſhine as well by day as night: and that is manifeſtly prooved by

ſome

ſome eclipſes of the Sunne, and exceeding deepe pits, for ſo they are to bee ſeene by day light. G

Chap. XV.

Generall rules touching the motions and lights of other Planets.

THoſe three, which we ſay are above the Sunne, bee hidden when they goe their courſe together with him. They ariſe in the morning, and be called Orientall Matutine: and never depart farther than eleven degrees. But afterwards meeting with his raies and beames, they are covered: and in their triple aſpect retrograde, they make their morning ſtations 120 degrees off, which are called the firſt: and anon in a contrarie aſpect or oppoſition 180 degrees off, they a- H riſe in the evening, and are Occidentall Veſpertin. In like ſort approching from another ſide within 120 degrees, they make their evening Stations, which alſo they call the ſecond, untill he overtake them within twelve degrees, and ſo hide them: and theſe are called the evening ſettings. As for *Mars*, as he is neerer to the Sunne, ſo feeleth he the ſunne beames by a quadrant aſpect, to wit, ninetie degrees: whereupon that motion tooke the name, called the firſt and ſecond Nonagenarie, from both riſings. The ſame planet keepeth this ſtationarie reſidence ſixe moneths in the ſignes: whereas otherwiſe of his owne nature, but two moneths. But the other planets in both ſtations or houſes continue not all out foure moneths apeece. Now the other two inferiour planets under the Sunne, goe downe and are hidden after the ſame manner in the evening Conjunction: and in as many degrees, they make their morning riſing: and from the fartheſt bounds of I their diſtance, they follow after the Sunne: and after they have once overtaken him, they ſet againe in the morning, and ſo outgoe him. And anon keeping the ſame diſtance, in the evening they ariſe againe unto the ſame limits which wee named before, from whence they are retrograde, and returne to the Sunne, and by the evening ſetting, they be hidden. As for *Venus*, ſhe likewiſe maketh two ſtatio[dire]ccording to the two manners of her apparance, morning and evening, when ſhe is in fartheſt bounds and utmoſt points of her Epicycle. But *Mercurie* keepeth his ſtations ſo ſmall a while, that they cannot be obſerved. This is the manner and order as well of the lights and appearances of the planets, as of their occultations and keeping cloſe intricate in their motion, and enfolded within many ſtraunge wonders. For chaunge they doe their magnitudes and colours: ſometime they approch into the North, the ſame againe goe backe toward K the South, yea, and all on a ſuddaine, they appeare one while neerer to the earth, and another while to the heaven: wherein, if we ſhall deliver many points otherwiſe than former writers, yet confeſſe we doe, that for theſe matters we are beholden unto them, who firſt made demonſtration of ſeeking out the waies thereto: howbeit, let no man deſpaire, but that he may profit and go forward alwaies in farther knowledge from age to age. For, theſe ſtraunge motions fall out upon many cauſes. The firſt is, by reaſon of thoſe eccentrique circles or Epicycles in the Stars, which the Greekes call *Abſides:* for needs we muſt uſe in this Treatiſe the Greeke tearmes. Now every one of the planets have particular Auges or circles aforeſaid by themſelves, and theſe different from thoſe of the ſtarrie heaven: for that the earth from thoſe two points, which they call Poles, is the very centre of the heaven, as alſo of the Zodiake, ſituate overthwart betweene them. All L which things are certainely knowne to be ſo, by the compaſſe, that never can lie. And therefore for every centure there ariſe their owne *Abſides*, whereupon it is, that they have diverſe circuits and different motions, becauſe neceſſarie it is, that the inward and inferiour *Abſides* ſhould bee ſhorter.

Chap. XVI.

Why the ſame Planets ſeeme ſometime higher, and ſometime lower.

THe higheſt *Abſides* therfore from the centre of the earth are of *Saturn*, in the ſigne M Scorpio: of *Iupiter* in Virgo: of *Mars* in Leo: of the Sunne in Gemini: of *Venus* in Sagittarius: of *Mercurie* in Capricorne: and namely in the middle or fifteenth degree of the ſaid ſignes: and contrariwiſe the ſaid planets in the ſame degrees of the oppoſite ſignes are loweſt, and to the centre of the earth neereſt. So it commeth to paſſe, that they ſeeme to move more ſlowly, when they go their higheſt circuit: not, for

that

A that naturall motions doe either haſten or ſlacke, which bee certaine and ſeverall to every one: but becauſe the lines which are drawne from the top of the *Abſis*, muſt needs grow narrow and neere together about the centre, as the ſpokes in cart wheeles: and the ſame motion by reaſon of the neereneſſe of the centre, ſeemeth in one place greater, in another leſſe. The other cauſe of their ſublimities is, for that in other ſignes they have the *Abſides* elevated higheſt from the centre of their owne eccentrique circles. Thus *Saturne* is in the height of his Auge in the 20 degree of Libra, *Iupiter* in the 15 of Cancer, *Mars* in the 28 of Capricorne, the Sunne in the 29 of Aries, *Venus* in the 16 of Piſces, *Mercurie* in the 15 of Virgo, and the Moone in the 4 of Taurus. The third reaſon of their altitude or elevation, is not taken from their Auges or circles eccentrique, but underſtood by the meaſure and convexitie of heaven, for that theſe planets ſeeme to
B the eie as they riſe and fall, to mount up or ſettle downeward through the aire. Hereunto is knit and united another cauſe alſo, to wit, the Zodiakes obliquitie, & latitude of the planets, in regard of the eclipticke: For through it the ſtarres which we called wandering, doe move and take their courſe. Neither is there any place inhabited upon earth, but that which lieth under it. For all the reſt without the poles, are fruitleſſe, deſert, and ill favored. Only the planet *Venus* goeth beyond the circle of the Zodiake, two degrees: which is ſuppoſed to be the very efficient cauſe, that certaine living creatures are engendered and bred even in the deſert and inhabitable parts of the world. The Moone likewiſe raungeth throughout all the breadth of it, but never goeth out of it. Next after theſe the ſtarre of *Mercurie* hath the largeſt ſcope in the Zodiake, but yet ſo, as of 12 degrees (for that is the bredth thereof) he wandereth but eight, and thoſe not equally, but two in
C the middeſt, foure above, and two beneath. Then the Sunne in the midſt, goeth alwaies betweene the two extremities of the Zodiake: but in his declining courſe from South and North, he ſeemeth to wind bias after the manner of Dragons or Serpents, unequally. *Mars* in his latitude leaveth the eclipticke line foure halfe degrees, *Iupiter* two degrees and a halfe, *Saturne* no more but two, like as the Sunne. Thus you ſee the manner of the latitudes, as they deſcend Southward, or aſcend Northward. And upon this is the reaſon grounded alſo of the third opinion of them, who imagine that the planets doe ariſe and mount from the earth upward into heaven. For very many have thought, although vntruly, that they climbe in this manner. But to the end that they may be reproved and confuted, we muſt lay open an infinite and incomprehenſible ſubtiltie, and that which containeth all thoſe cauſes & reaſons aboveſaid. Firſt therfore this is agreed upon and re-
D ſolved, that theſe ſtars or planets in their evening ſetting, are neereſt to the earth, both in regard of latitude, & alſo of altitude: and then they be called Occidentall Veſpertine, *i.* when the Sun toward the evening, covereth them with his raies: alſo, when they be fartheſt from the earth, aswel in latitude as elevation, they be Oriental Matutine, & ariſe or appear in the morning before the Sun is up: as alſo that then they are Stationaries in their houſes, which be in the middle points of the latitudes, which they cal eclipticks. Likewiſe, confeſſed it is, that ſo long as the planets are neer to the earth, their motion ſeemeth to encreaſe & be quicke: but as they depart on high, to decreaſe and be ſlow. And this reaſon is approved & confirmed principally by the elevations and depreſſions of the Moone. As doubtleſſe it is alſo, and held for an infallible rule, that every planet being Orientall Matutine, riſeth every day higher than other. The ſuperior three above the Sun diminiſh even from their firſt ſtations unto the ſecond. Which being ſo, it will plainely appeare, that
E every planet Orientall Matutine, riſing before the Sun, beginneth to mount the latitude Septentrionall, & decline from the Ecliptick Northward: in ſuch ſort, that from the time that they begin to diſmarch, their motion increaſeth by little & little more ſparely. But in the firſt Stations, they are at the higheſt altitude & aſcent: for then and not before, the numbers begin to be withdrawn, & the planets to go backward, and be retrograde. Whereof a particular reaſon by it ſelfe may be given, in this manner: The Planets being ſmitten in that part whereof we ſpake, they are both inhibited by the triangular beames or Trine aſpect of the Sun, to hold on a ſtreight and direct courſe in the longitude of the heaven, and ſo be retrograde: & ſo are raiſed up aloft by the fierie power of the ſaid Sun. This cannot preſently at the firſt be underſtood by our eieſight: where-
F upon they are ſuppoſed to ſtand, and hereof their Stations tooke the name. Then proceedeth forward the violence of the Sunne beames or aſpect, and the vapor thereof by repercuſſion, forceth them to be evidently retrograde, and goe backward. And much more is this perceived in their even riſing, when they be Orientall Veſpertine, when the Sunne is wholly againſt them, and when they be driven to the very top of their *Abſides*, and ſo not ſeene at all, becauſe they are at

the

the higheſt,and goe their leaſt motion, which is ſo much the leſſe, when as it happeneth in the higheſt ſignes of their Auges or *Abſides*. From the even ariſing after the Sunne-ſetting,they deſcend toward the latitude meridionall,for now the motion leſſe diminiſheth,but yet encreaſeth not before the ſecond ſtations: for that they are forced to deſcend,by reaſon of the ſun beames comming from the other ſide of their Epycicle:and the ſame force beareth them downeward againe to the earth, which by the former triangular aſpect raiſed them aloft toward heaven. So much skilleth it whether the ſaid beames came from beneath or above. The ſame happeneth much more in the even ſetting when they be hidden with the raies of the Sunne. This is the reaſon of the ſuperiour planets above the Sunne:but the Theorique is more difficult of the reſt,and hath by no man before us been delivered. G

H

Chap. XVII.

Generall rules as touching the Planets.

FIrſt and formoſt therefore let us ſet downe the cauſe why *Venus* ſtarre never departeth from the Sunne more than 46 degrees, and *Mercurie* not above 23: and (being as they are diverſe Planets)why oftentimes they retire backe unto the Sunne within that compaſſe.For to be reſolved in this point,note wee muſt, that both of them have their *Abſides* turned oppoſite to the reſt,as being ſeated under the ſun: and ſo much of their circles is underneath, as the forenamed were above: and therefore farther off they cannot bee, becauſe the curvature and roundle of their *Abſides* in that place, hath no greater longitude.Therefore both edges of their *Abſides*,by a like proportion keepe an indifferent mean,& their courſe is limitted: but the ſhort ſpaces of their longitudes,they recompence againe with the wandering of their latitudes. But what is the reaſon that they reach not alwaies to 46 degrees,and to 23? yes ywis doe they: but this the Canonicall Aſtronomers have miſſed of in their Aphoriſmes. For it is apparent,that their *Abſides* alſo or Auges doe moove,becauſe they never overpaſſe the Sunne. And therefore when their edges from either ſide are perceived to fall upon the very point,then the planets alſo are ſuppoſed to reach unto their longeſt diſtances: but when their edges or the points of their Epycicles,be ſhort ſo many degrees, the ſtarres themſelves are thought to returne more ſpeedily in their retrogradation, than in their direct courſe forward, albeit the utmoſt extremitie which they both have,is ever the ſame. And from hence is the reaſon underſtood of the contrarie motions of theſe two planets.For the ſuperiour planets move moſt ſwiftly in the even ſetting,but theſe moſt ſlowly. They,I ſay,be fartheſt from the earth, when they move ſloweſt; and theſe,when they goe ſwifteſt: for as in the former the neereneſſe of the centre haſteneth them;ſo in theſe,the extremitie of the circle:they,from their morne riſing begin to ſlake their celeritie; but theſe,to encreaſe it: they returne back from their morning Station to their evening manſion; but *Venus* contrariwiſe is retrograde from the Station Veſpertine,to the Matutine. Howbeit, ſhe from the morne riſing beginneth to climbe the latitude Septentrionall: but to follow the altitude and the Sunne,from the morning ſtation: as being moſt ſwift and at the higheſt in the morne ſetting. Moreover ſhe beginneth to digreſſe in latitude,and to diminiſh her motion from the morne riſing: but,to be retrograde,and withall to digreſſe in altitude,from the evening ſtation. Again the Planet *Mercurie*,being Oriental Matutin, beginneth both waies to climbe,that is,to mount higher day by day; but to digreſſe in latitude, being Orientall Veſpertine: and when the Sunne hath overtaken him within the diſtance of fifteene degrees,he ſtandeth ſtill for foure daies unmoveable.Within a while he deſcendeth from his altitude daily,and goeth backe retrograde from the even ſetting, namely,when the Sunne hideth him with his raies, to the Moone riſing, when hee appeareth before the Sunne is up. This ſtarre onely, and the Moone, deſcend in as many daies as they aſcend. But *Venus* aſcendeth up to her ſtation in fifteene daies and the vantage. Againe,*Saturne* and *Iupiter* are twice as long deſcending,and *Mars* foure times. See how great varietie is in their nature, but the reaſon thereof is evident. For they which goe againſt the vapour and heat of the Sunne doe alſo hardly deſcend.Many ſecrets more of Nature, and lawes whereunto ſhe is obedient, might bee ſhewed about theſe things. As for example: The planet of *Mars*,whoſe courſe of all others can bee leaſt obſerved,never maketh ſtation but in quadrate aſpect: as for *Iupiter*,in triangle aſpect; and very ſeldome ſevered from the Sunne 60 degrees, which number maketh ſixe angled formes of the heaven, I K L M

A heaven, that is to ſay, is the juſt ſixt part of the heaven: neither doth *Iupiter* ſhew his riſing in the ſame ſigne this yeer, as in the former, ſave only in two ſignes, *Cancer* and *Leo*. The planet of *Mercurie* ſeldome hath his even riſing in *Piſces*, but very often in *Virgo*; and the morne riſing in *Libra*. In like manner, the morne riſing in *Aquarius*, but very ſeldome in *Leo*. Neither becommeth he retrograde in *Taurus* and *Gemini*: and in *Cancer*, not under the 25 degree. As for the Moone, ſhe entreth not twiſe in Conjunction with the Sunne in any other ſigne, but in *Gemini*: and ſometime hath no Conjunction at all, and that only in *Sagitarius*. As for the laſt and firſt of the Moone, to be ſeene in one and the ſelfeſame day or night, happeneth in no other ſigne but in *Aries*, and few men have had the gift to ſee it. And hereupon came *Linceus* to be ſo famous for his eieſight. Alſo, the Planets *Saturne* and *Mars* are hidden with the Sunne beames, and appeare
B not in the heaven at the moſt 170 daies: *Iupiter* 36, or at leaſt tenne daies wanting: *Venus* 69, or when leaſt, 52: *Mercurie* 13, or at leaſt, 17.

Chap. XVIII.

What is the cauſe that the Planets alter their colours.

THe reaſon of the Planets altitudes is it that tempereth their colours, according as they be neerer or farther off from the earth. For they take the likeneſſe of the aire, into the coaſts whereof they enter, in their aſcent: and the circle or
C circumference of another planets motion, coloureth them as they approach either way, aſcending or deſcending. The colder ſetteth a pale colour, the hotter a red, and the windie a fearefull and rough hue. Onely the points and conjunctions of the *Abſides*, and the utmoſt circumferences, ſhew a darke blacke. Each planet hath a ſeverall colour, *Saturne* is white, *Iupiter* cleere and bright, *Mars* fierie and red, *Venus* Orientall (or *Lucifer*) fair, Occidentall (or *Veſper*) ſhining, *Mercurie* ſparkling his rayes. The Moon pleaſant, the Sunne when he riſeth burning, afterwards glittering with his beames. Upon theſe cauſes the ſight is entangled, and diſcovereth even thoſe ſtarres alſo which are contained and fixed in the skie, more or leſſe. For one while a number of them appeare thicke, about the halfe Moone, when in a cleare and calme night ſhe gently beautifieth them: another while they are ſeene but
D here and there, inſomuch as we may wonder, that they are fled upon the full Moone, which hideth them: or when the beames either of the Sunne or other aboveſaid have dazzeled our ſight. Yea, the very Moon her ſelfe hath a feeling, doubtleſſe, of the Sunne beames, as they come upon her: for thoſe raies that come ſidelong, according to the convexitie of the heaven, give but a darke and dim light to the Moone, in compariſon of them that fall directly with ſtreight angles. And therefore in the quadrangle aſpect of the Sunne, ſhe appeareth divided in halfe: in the triangle, ſhe is well neere environned, but her circle is halfe emptie and void: howbeit in the oppoſition ſhe ſeemeth full. And againe, as ſhe is in the waine, ſhe repreſenteth the ſame formes, decreaſing by quarters as ſhe increaſed: with like aſpects, as the other three planets above the ſun.

E

Chap. XIX.

The reaſon of the Sunnes motion, and the unequalitie of daies.

AS for the Sunne himſelfe, a man may obſerve foure differences in his courſe: twice in the year making the night equal to the day, to wit, in the Spring, and Autumne: for then he falleth juſt upon the centre of the earth, namely, in the eight degree of *Aries* and *Libra*. Twiſe likewiſe exchanging the compaſſe of his race: to lengthen the day from the *Bruma* or midwinter, in the eight degree of *Capricorn*; and again to lengthen the night from the ſummer ſunneſteed, being in as many degrees of *Cancer*. The cauſe of unequall daies, is the obliquitie of the Zodiake: whereas the one halfe juſt of the world, to wit, ſixe ſignes of the Zodiake, is at all times above and under the earth. But thoſe ſigns which
F mount upright in their riſing, hold light a longer tract, and make the daies longer: wheras they which ariſe crooked and goe bias, paſſe away in ſhorter and ſwifter time.

G

Chap. XX.

❧ *Why lightnings are attributed to Iupiter.*

MOst men are ignorant of that ſecret, which by great attendance upon the heavens, deepe clearkes and principall men of learning have found out: namely, that they bee the fires of the three uppermoſt planets, which falling to the earth, carrie the name of lightnings, but thoſe eſpecially which are ſeated in the middeſt, to wit, about *Iupiter*, haply, becauſe participating the exceſſive cold and moiſture from the upper circle of *Saturn*, and the immoderate heat from *Mars* that is next under, by this meanes he diſchargeth the ſuperfluitie: and hereupon it is H commonly ſaid, That *Iupiter* ſhooteth and darteth lightenings. Therefore, like as out of a burning peece of wood a cole of fire flieth forth with a cracke, even ſo from a ſtarre is ſpit out as it were and voided forth this cœleſtial fire, carrying with it preſages of future things: ſo as the heaven ſheweth divine operations, even in theſe parcels and portions which are rejected and caſt away as ſuperfluous. And this moſt commonly happeneth when the aire is troubled, either becauſe the moiſture that is gathered, mooveth and ſtirreth forward that abundance to fall; or els for that it is diſquieted with the birth (as it were) proceeding from a great bellied ſtar, and therefore would be diſcharged of ſuch excrements.

I

Chap. XXI.

❧ *The diſtances of the Planets.*

MAny have aſſaied to find out the diſtance and elevation of the Planets from the earth, and have ſet downe in writing, that the Sunne is diſtant from the Moon 18 degrees, even as much as the Moone from the earth. But *Pythagoras*, a man of a quicke ſpirit, hath collected, that theſe are 126000 furlongs from the earth to the Moone, and a duple diſtance from her to the Sunne, and ſo from thence to the twelve ſignes three times ſo much. Of which opinion was alſo our countrieman *Gallus Sulpitius*.

K

Chap. XXII.

❧ *Of the Planets muſicke and harmonie.*

BVt *Pythagoras* otherwhiles uſing the tearmes of muſicke, calleth the ſpace betweene the earth and the Moone a Tonus, ſaying, that from her to *Mercurie* is halfe a tone: and from him to *Venus* in manner the ſame ſpace. But from her to the Sunne as much and halfe againe: but from the Sunne to *Mars* a Tonus, that is to ſay, as much as from the earth to the Moone. From him to *Iupiter* halfe a Tonus: likewiſe from him to *Saturne* halfe a Tonus: and ſo from thence to the Signifer Sphære or Zodiake ſo much, and halfe again. Thus are compoſed ſeven tunes, which harmonie they cal Diapaſon, that is to ſay, the Generalitie or whole ſtate of concent and accord, which is perfect muſicke. In which, *Saturne* moveth by the Dorick tune: *Mercurie* by Phthongus, *Iupiter* by the Phrygian, and the reſt likewiſe: a ſubtiltie more pleaſant ywis than needfull. L

Chap. XXIII.

❧ *The Geometrie or dimenſion of the world.*

ASTadium or furlong maketh of our paſes 125, that is to ſay, 625 foot. *Poſidonius* ſaith, That from the earth it is no leſſe than fortie ſtadia to that height or altitude wherein thicke weather, winds and clouds, doe engender. Above which, the aire is pure, cleere, and light, without any troubled darkeneſſe. But from the cloudie and M muddie region to the Moone, is twentie hundred thouſand Stadia: from thence to the Sunne five thouſand. By meanes of which middle ſpace betweene, it commeth to paſſe, that ſo exceeding great as the Sunne is, he burneth not the earth. Many there be moreover, who have taught, that the clouds are elevated to the heigth of nine hundred ſtadia. Vnknowne theſe points are,

A are, and such as men cannot wind themselves out of: but as well may they now be delivered to others, as they have been taught to us: in which notwithstanding, one infallible reason of a Geometricall collection which never lieth, cannot be rejected, if a man would search deep into these matters. Neither need a man to seeke a just measure hereof (for to desire that, were in manner a point of fond and foolish idlenesse, as if men had nothing els to doe) but onely to make an estimate, and resolve upon a guesse and conjecture thereof. For, whereas it is plaine and apparent by the course of the Sunne, that the circle through which he passeth, doth containe three hundred threescore, and almost sixe degrees: and alwaies the dimetrent line, or diameter, taketh a third part of the circumference, and little lesse than a seventh part of a third: it is plain, that deducting one halfe thereof (by reason that the earth, situate as a centre, commeth betweene) the sixt part
B well neere of this great circuit which he maketh about the earth (so farre as our mind doth comprehend) is the very heigth from the earth up to the Sunne, but the twelfth part to the Moone, because she runneth so much a shorter compasse than the Sunne: whereby it appeareth, that she
+ is in the middest betweene the earth and the Sunne. A wonder it is to see how farre the presumpteous mind and heart of man will proceed, and namely being invited and drawne on by some little successe, as in the abovenamed matter. The reason whereof ministreth plenteous occasion of impudencie, for they who dared once to give a guesse at the space betweene the Sunne and the
§ earth, are so bold to doe the like from thence to heaven. For presuming, that the Sunne is in the middest, they have at their fingers ends by and by the very measure also of the whole world. For looke how many seven parts the dimetrent hath, so many 22 parts or thereabout, hath the whole
C circle: as if they had gotten the just and certaine measure of the heaven by levell, and the plumb or perpendicular line. The Ægyptians according to the reckoning which *Petosiris* and *Necepsos* have invented, doe collect, That every degree in the circle of the Moone, which is the least (as hath been said) of all other, containeth 33 stadia, and somewhat more: in *Saturne* the greatest of all the rest, duple so much, and in the Sunne: which we said was the middest, [illegible]re of both measures. And this computation hath very great importance, for he that will reckon the distances betweene the circle of *Saturne* and the Zodiake, by this calculation shall multiplie an infinite number of Stadia.

Chap. XXIIII. *Of suddaine starres.*

D THere remaine yet some few points as touching the world: for in the very heaven there bee starres that suddainely arise and appeare, whereof be many kinds.

Chap. XXV.

Of Comets or blazing starres, and cœlestiall prodigies, their nature, situation, and diverse sorts.

E THese blazing starres the Greekes call *Cometas*, our Romanes *Crinitas*: dreadfull to be seene, with bloudie haires, and all over rough and shagged in the top like the bush of haire upon the head. The same Greekes call those starres *Pogonias*, *Pogonias.* which from the nether part have a maine hanging downe, in fashion of a long beard. As for those named *Acontiæ*, they brandish and shake like a speare or *Acontias.* dart, signifying great swiftnesse. This was it, whereof *Tiberius Cæsar* the Emperour wrate an excellent Poeme in his fift Consulship, the last that ever was seene to this day. The same, if they be shorter and sharpe pointed in the top, they use to call *Xiphiæ*: and of all other *Xyphias.* palest they be, and glitter like a sword, but without any raies or beames: which, another kind of them, named *Disceus* (resembling a dish or coit, whereof it beareth the name, but in colour like *Disceus.* to amber) putteth forth here and there out of the brimmes and edges thereof. As for *Pitheus*, *Pitheus.* it is seene in forme of tunnes, environned within a smokie light, as if it were a concavitie. *Cera-* *Ceratias.* *tias* resembleth an horne: and such a one appeared when the whole manhood of Greece fought
F the battaile of Salamis. *Lampadias* is like to burning torches: and *Hippeus* to horse maines, most *Lampadias.* *Hippeus.* swift in motion, and turning round. There is also a white Comet with silver haires, so bright and shining, that hardly a man can endure to looke upon it, and in mans shape it sheweth the verie image of a god. Moreover, there be blazing starres that become all shaggie, compassed round with hairie fringe, and a kind of maine. One heretofore appearing in the forme of a main, chan-

ged into a ſpeare, namely in the hundred and eight Olympias, and the 398 yeere from the foun- G
dation of Rome. Noted it hath ben, that the ſhorteſt time of their appearance is a ſeven-night, and the longeſt eightie daies. Some of them move like the wandering planets: others are fixed faſt, and ſtir not. All in manner are ſeene under the very North ſtar called *Charl le maignes* waine: ſome in no certaine part thereof, but eſpecially in that white, which hath taken the name of the
*Galaxi. *Milke circle. *Ariſtotle* ſaith, That many are ſeene together: a thing that no man but hee hath found out, ſo farre as I can learne. Mary, boiſterous winds, and much heat of weather, are foretokened by them. There are of them ſeene alſo in winter ſeaſon, and about the Antarticke South pole: but in that place without any beames. A terrible one likewiſe was ſeene of the people in
Typhon. Æthyopia and Ægypt, which the king who raigned in that age, named *Typhon*. It reſembled fire, and was plaited or twiſted in maner of a wreath, grim and hideous to be looked on; and no more H
truly to be counted a ſtarre, than ſome knot of fire. Sometimes it falleth out, that the Planets and other ſtars are beſpread all over with haires. But a Comet lightly is never ſeene in the West part of the heaven.

A fearefull ſtarre for the moſt part this Comet is, and not eaſily expiated: as it appeared by the late civile troubles when *Octavius* was Conſull: as alſo a ſecond time by the inteſtine warre of *Pompey* and *Cæſar*. And in our daies about the time that *Claudius Cæſar* was poyſoned, and left the Empire to *Domitius Nero*, in the time of whoſe raigne and government, there was another in manner continually ſeene, and ever terrible. Men hold opinion, that it is materiall for preſage to obſerve into what quarters it ſhooteth, or what ſtarres power and influence it receiveth: alſo what
ſimilitudes it reſembleth, and in what parts it ſhineth out and firſt ariſeth. For if it be like unto I
flutes or hautboies, it portendeth ſomewhat to Muſicians: if it appeare in the privie parts of any ſignes, let ruffians, whoremaiſters, and ſuch filthie perſons take heed. It is reſpective to fine wits and learned men, if it put forth a triangular or foureſquare figure with even Angles, to any ſituations of the perpetuall fixed ſtarres. And it is thought to preſage, yea, and to ſprinckle and put forth poyſon, if it be ſeene in the head of the Dragon, either North or South.

In one onely place of the whole world, namely, in a temple at Rome, a Comet is worſhipped and adored: even that, which by *Auguſtus Cæſar* himſelfe of happie memorie, was judged very luckie and fortunate to him: who, when it began to appeare, gave attendance in perſon as overſeer to thoſe plaies and games which he made to *Venus Genetrix*, not long after the death of his
father *Cæſar*, in the colledge by him inſtituted and erected. For, that joy of his he teſtified in theſe K
words, *In thoſe very daies during the ſolemnitie of my Plaies, there was ſeene a blazing ſtar for ſeven daies together, in that region of the skie which is under the North ſtarre* Septentriones. *It aroſe about the eleventh houre of the day, bright it was and cleere, and evidently ſeene in all lands. By that ſtarre it was ſignified (as the common ſort beleeved) that the ſoule of* (Iulius) Cæſar *was received among the divine powers of the immortall gods. In which regard, that marke or enſigne of a ſtarre was ſet to the head of that Statue of* Iulius Cæſar, *which ſoone after we dedicated in the Forum Romanum.* Theſe words publiſhed he abroad: but in a more inward joy to himſelfe, hee interpreted and conceived thus of the thing, That this Comet was made for him, and that himſelfe was in it borne. And verily, if we will confeſſe a truth, a healthfull, good and happie preſage that was, to the whole world.
Some there be who beleeve, that theſe be perpetuall ſtars, and go their courſe round, but are not L
ſeene, unleſſe they bee left by the Sunne. Others againe are of opinion, that they are engendred caſually by ſome humor and the power of fire together, and therby do melt away and conſume.

Chap. XXVI.

Hipparchus his opinion of the ſtarres. Alſo hiſtoricall examples of Torches, Lampes, Beames, Fierie darts, opening of the Firmament, and other ſuch impreſſions.

Hipparchus the foreſaid Philoſopher (a man never ſufficiently praiſed, as who proved the affinitie of ſtarres with men, and none more than he; affirming alſo, that our ſoules were parcell of heaven) found out and obſerved another M
new ſtarre engendred in his time, and by the motion thereof on what day it firſt ſhone, he grew preſently into a doubt, Whether it happened not very often that new ſtarres ſhould ariſe? and whether thoſe ſtarres alſo mooved not, which we imagine to be faſt fixed? The ſame man went ſo farre, that he attempted (a thing even hard

A hard for God to performe) to deliver unto posteritie the just number of starres. Hee brought the said starres within the compasse of rule and art, devising certaine instruments to take their severall places, and set out their magnitudes: that thereby it might be easily discerned, not only whether the old died, and new were borne, but also whether they moved, and which way they tooke their course? likewise, whether they encreased or decreased? Thus he left the inheritance of heaven unto all men, if any one haply could be found able to enter upon it as lawfull heire.

There be also certaine flaming torches shining out in the skie, howbeit, never seen but when they fall. Such a one was that, which at the time that *Germanicus Cæsar* exhibited a shew of sword-fencers at utterance, ran at noontide in the sight of all the people. And two sorts there be of them. Namely, *Lampades*, which they call plaine torches; and the other *Bolides*, *i.* Launces, such *Lampades. Bolides.*
B as the Mutinians saw in their calamitie, when their cittie was sacked. Herein they differ, for that those lampes or torches, make long traines, whiles the forepart onely is on a light fire. But *Bolis* burneth all over, and draweth a longer taile. There appeare and shine out after the same manner certaine beames, which the Greekes cal *Docus*. Like as, when the Lacedemonians being vanquished in sea fight, lost the Empire and dominion of Greece. The firmament also is seene to chinke and open, and this they name *Chasma*. *Docus. Chasma.*

Chap. XXVII.

Of the strange colours of the Skie.

C THere appeareth in the Skie also a resemblance of bloud, and (than which nothing is more dread and feared of men) a fierie impression, falling from out of heaven to earth: like as it happened in the third yeere of the hundred and seven Olympias, at what time as king *Philip* made all Greece to th[illegible] with fire and sword. And these things verily, I suppose to come at certaine times by course of Nature, like as other things; and not, as the most part thinke, of sundrie causes, which the subtile wit and head of man is able to devise. They have indeed been forerunners of exceeding great miseries, but I suppose those calamities happened not because these impressions were, but these therefore were procreated to foretell the accidents that ensued afterD ward. Now, for that they fall out so seldome, the reason therefore of them is hidden and secret, and so not knowne, as the rising of planets aboveseid, the eclipses, and many other things.

Chap. XXVIII. *Of the heaven flame.*

IIkewise there are seene starres together with the Sunne all day long: yea, and very often about the compasse of the Sunne, other flames, like unto garlands of corne eares: also circles of sundrie colours, such as those were when *Augustus Cæsar* in the prime of his youth entred the citie of Rome (after the decease of his father) to take upon him that great name and imperiall title of his.

Chap. XXIX. *Of cœlestiall crownes.*

E ALso the same garlands appeare about the Moone, and other goodly bright stars which are fixed in the firmament. Round about the Sunne there was seene an Arch, when *Lu. Opimius* and *Q. Fabius* were Consuls: as also a round circle, when *L. Porcius* and *M. Acilius* were Consuls.

Chap. XXX. *Of suddaine Circles.*

THere appeared a Circle of red colour, when *L. Iulius* and *P. Rutilius* were Consuls. Moreover, there are strange eclipses of the Sunne, continuing longer than ordinarie, as namely, when *Cæsar* Dictatour was murdered. Moreover, in the warres of *Antonie*, the Sunne continued almost a yeere long with a pale and wan colour.

F

Chap. XXXI. *Many Sunnes.*

OVer and besides, many Sunnes are seene at once, neither above nor beneath the bodie of the true Sunne indeed, but crosse wise and overthwart: never neere, nor directly against the earth, neither in the night season, but when the Sunne either riseth or setteth. Once they

they are reported to have beene seene at noone day in Bosphorus, and continued from morne to even. Three Sunnes together our auncitors in old time have often beheld, as namely, when *Sp. Posthumius* with *Q. Mutius*, *Q. Martius* with *M. Porcius*, *M. Antonius* with *P. Dolabella*, and *Mar. Lepidus* with *L. Plancus*, were Consuls. Yea, and we in our daies have seene the like, in the time of *Cl. Cæsar* of famous memorie, his Consulship, together with *Cornelius Orfitus* his Colleague. More than three we never to this day find to have been seene together. G

Chap. XXXII. *Many Moones.*

THree Moones also appeared at once, and namely, when *Cn. Domitius* and *C. Fannius* were Consuls, which most men called Night-Sunnes.

Chap. XXXIII. *Day light in the night.* H

OVt of the firmament by night, there was seene a light, when *C. Cœlius* and *Cn. Papyrius* were Consuls, yea, and oftentimes besides, so as the night seemed as light as the day.

Chap. XXXIIII. *Burning shields or targuets.*

A Burning shield ran sparkling from the West to the East, at the Sunnes setting, when *L. Valerius* and *C. Marius* were Consuls.

Chap. XXXV. *A strange sight in the Skie.*

BY report there was once seene, and never but once, when *Cn. Octavius*, and *C. Scribonius* were Consuls, a sparkle to fall from a starre: and as it approched the earth, for to waxe greater, and after it came to the bigneſſe of the Moone, to shine out and give light, as in a cloudie and darke day: then, being retired again into the skie, it became (to mens thinking) a burning lampe. This, *Licinius Syllanus* the Proconsull saw, together with his whole traine. I

Chap. XXXVI. *The running of starres too and fro in the Skie.*

SEene there bee also starres to shoot hither and thither, but never for nought and to no purpose: for, from the same quarter where they appeare, there rise terrible winds, and after them stormes and tempests both by sea and land.

Chap. XXXVII. *Of the starres called Castor and Pollux.* K

IHave seene my selfe in the campe, from the souldiours sentinels in the night watch, the resemblance of lightening to sticke fast upon the speares and pikes set before the rampiar. They settle also upon the crosse saile-yards, and other parts of the ship, as men doe saile in the sea: making a kind of vocall sound, leaping too and fro, and shifting their places as birds doe which flie from bough to bough. Daungerous they be and unluckie, when they come one by one without a companion: and they drown those ships on which they light, and threaten shipwrack, yea, and they set them on fire if haply they fall upon the bottome of the Keele. But if they appeare two and two together, they bring comfort with them, and foretell a prosperous course in the voiage, as by whose comming, they say, that dreadfull, cursed, and threatening Meteor called Helena, is chased and driven away. And thereupon it is, that men assigne this mightie power to *Castor* and *Pollux*, and invocate them at sea, no lesse than gods. Mens heads also in the even-tide are seene many times to shine round about, and to be of a light fire, which presageth some great matter. Of all these things there is no certain reason to be given, but secret these be, hidden with the majestie of Nature, and reserved within her Cabinet. L

Chap. XXXVIII. *Of the Aire.*

ITremaineth now (thus much and thus farre being spoken of the world it selfe, to wit, the starrie heaven and the planets) to speake of other memorable things observed in the Skie. For even that part also have our forefathers called *Cælum*, *i.* the Skie, which otherwise they name Aire: even all that portion of the whole, which seeming like a void and emptie place, yeeldeth this vitall spirit whereby all things do live. This region is seated beneath the Moone, and farre under that planet (as I observe it is, in manner by all men agreed upon.) And mingling together an infinite portion of the superiour cœlestiall nature or elementarie fire, M

with

A with an huge deale likewiſe of earthly vapours, it doth participate confuſedly of both. From hence proceed clouds, thunders, and thoſe terrible lightenings. From hence come haile, froſts, ſhoures of raine, ſtormes and whirlewinds: from hence ariſe the moſt calamities of mortall men, and the continual warre that Nature maketh with her owne ſelfe. For theſe groſſe exhalations as they mount upward to the heaven, are beaten backe and driven downeward by the violence of the ſtarres: and the ſame againe when they liſt, draw up to them thoſe matters, which of their owne accord aſcend not. For thus we ſee, that ſhoures of raine doe fall, foggie miſts and light clouds ariſe, rivers are dried up, haile ſtormes come downe amaine, the ſunne beames doe ſcorch and burne the ground, yea, and drive it every where to the middle centre: but the ſame againe unbroken, and not looſing their force, rebound backe and take up with them whatſoever
B they have drunke up and drawne. Vapours fall from aloft, and the ſame returne againe on high: winds blow forcibly, and come emptie, but backe they goe with a bootie, and carrie away every thing before them. So many living creatures take their wind and draw breath from above: but the ſame laboureth contrariwiſe, and the earth infuſeth into the aire a ſpirit and breath, as if it were cleane void and emptie. Thus whiles Nature goeth too and fro, as forced by ſome engine, by the ſwiftneſſe of the heaven, the fire of diſcord is kindled and groweth hot. Neither may ſhee abide by it, and ſtand to the fight, but being continually carried away, ſhe rolleth up and downe: and as about the earth ſhee ſpreadeth and pitcheth her tents, as it were, with an unmeaſurable globe of the heaven, ſo ever and anon of the clouds ſhe frameth another skie. And this is that region where the winds raigne. And therefore their kingdome principally is there to bee ſeene,
C where they execute their forces, and are the cauſe well neere of all other troubles in the aire. For thunderbolts and flaſhing lightenings moſt men attribute to their violence. Nay, more than that, therefore it is ſuppoſed that otherwhiles it raineth ſtones, becauſe they were taken up firſt by the wind: ſo as we may conclude, that they cauſe many like impreſſions in the aire. Wherfore many matters beſides, are to be treated of together.

Chap. XXXIX. *Of ordinarie and ſet ſeaſons.*

D IT is manifeſt, that of times and ſeaſons, as alſo of other things, ſome cauſes bee certaine; others, caſuall and by chaunce; or, ſuch as yet the reaſon thereof is unknowne. For who need to doubt, that Summers and Winters, and thoſe alternative ſeaſons which wee obſerve by yearely courſe, are occaſioned by the motion of the Planets. As therefore the Sunnes nature is underſtood by tempering and ordering the yeare: ſo the reſt of the ſtarres and planets alſo, have every one their proper and peculiar power, and the ſame effectuall to ſhew and performe their owne nature. Some are fruitfull to bring forth moiſture, that is turned into liquid raine: others to yeeld an humour either congealed into froſts, or gathered and thickened into ſnow, or els frozen and hardened into haile: ſome affourd winds: others warmth: ſome hote and ſcorching vapours: ſome, dewes: and others, cold. Neither yet ought theſe ſtarres to be eſteemed ſo little as they ſhew in ſight, ſeeing that none of them is leſſe than the Moone: as may appeare by the reaſon of their exceeding heigth. Well then, every one in their owne motion, exerciſe their ſeverall
E natures: which appeareth manifeſtly by *Saturne* eſpecially, who ſetteth open the gates for raine and ſhoures to paſſe. And not onely the ſeven wandering ſtarres bee of this power, but many of them alſo that are fixed in the firmament; ſo often as they bee either driven by the acceſſe and approch of thoſe Planets, or pricked and provoked by the caſting and influence of their beams: like as we find it happeneth in the ſeven ſtarres called *Suculæ*, which the Grecians of raine name *Hyades*, becauſe they ever bring foule weather. Howbeit ſome, of their owne nature, and at certaine ſet times doe cauſe raine; as the riſing of the Kids. As for *Arcturus*, he never lightly appeareth without ſome tempeſtuous and ſtormie haile.

Chap. XL. *The power of the Dog ſtarre.*

F WHo knoweth not, that when the Dog ſtarre ariſeth, the heat of the Sunne is fierie and burning? the effects of which ſtarre are felt exceeding much upon the earth. The ſeas at his riſing do rage and take on, the wines in ſellars are troubled, pooles alſo and ſtanding waters doe ſtirre and move. A wild beaſt there is in Ægypt, called *Orix*, which the Ægyptians ſay, doth ſtand full againſt the Dog ſtarre when it riſeth,

riseth, looking wistly upon it, and testifieth after a sort by sneesing, a kind of worship. As for dogs, G
no man doubteth verily, but all the time of the canicular daies they are most readie to run mad.

Chap. XLI.

That the starres have their severall influences in sundrie parts of the signes, and at divers times.

MOreover, the parts of certaine signes, have their peculiar force, as appeareth in the equinoctiall of Autumne, and in mid winter; at what time wee perceive, that the Sunne maketh tempests. And this is prooved, not onely by raines and stormes, but by many experiments in mens bodies, and accidents to plants in the countrey. For some men are strucken by the Planet, H
and blasted: others are troubled and diseased at certaine times ordinarily, in their bellie, sinews, head, and mind. The Olive tree, the Aspe or white Poplar, and Willows, turn or wryth their leaves about at Midsummer, when the Sun entreth Cancer. And contrariwise, in very Mid-winter, when he entreth Capricorn, the hearb Penyroial floureth fresh, even as it hangs within house drie and readie to wither. At which time all parchments and such like bladders or skins are so pent and stretched with spirit and wind, that they burst withall. A man might marvell hereat, who marketh not by daily experience, that one hearbe called *Heliotropium, regardeth and looketh toward the Sunne ever as he goeth, turning with him at all houres, notwithstanding he be shaddowed under a cloud. Now certaine it is, that the bodies of oysters, muskles, cockles, I
and all shell-fishes, grow by the power of the Moone, and thereby again diminish: yea, and some have found out by diligent search into Natures secrets, that the fibres or filaments in the livers of rats and mice, answere in number to the daies of the Moones age: also that the least creature of all others, the Pismire, feeleth the power of this Planet, and alwaies in the chaunge of the Moon ceaseth from worke. Certes, the more shame it is for man to be ignorant and unskilfull, especially seeing that hee must confesse, that some labouring beasts have certaine diseases in their eies, which with the Moone doe grow and decay. Howbeit the excessive greatnesse of the heaven and exceeding heigth therof, divided as it is into 72 signes, maketh for him, & serveth for his excuse. Now these signs are the resemblances of things or living creatures, into which the skilfull Astronomers have with good respect digested the firmament. For example sake, in the taile of Taurus there be seven, which they named in old time *Vergiliæ*; in the forehead other seven called K
Suculæ: and *Boötes* who followeth after the waine, or great Beare *Septentriones*.

*Some take it for Ruds or Wert-wort: others for Turn-sol, or the Marygold.

Chap. XLII.

The causes of raine, showers, winds, and clouds.

CAnnot denie, but without these causes there arise raines and winds: for that certaine it is, how there is sent forth from the earth a mist sometimes moist, otherwhiles smokie, by reason of hote vapours and exhalations. Also, that clouds are engendred by vapours which are gone up on high, or els of the aire L
gathered into a waterie liquor: that they bee thicke, grosse, and of a bodily consistence, wee guesse and collect by no doubtfull argument, considering that they overshaddow the Sunne, which otherwise may be seene through the water, as they know well, that dive to any depth whatsoever.

Chap. XLIII.

Of Thunder and Lightening.

DEnie I would not therefore, but that the fierie impressions from stars above, may fall upon these clouds, such as wee oftentimes see to shoot in cleare and M
faire weather: by the forcible stroke whereof, good reason it is, that the aire should bee mightily shaken, seeing that arrowes and darts when they are discharged, sing and keepe a noise as they flie. But when they encounter a cloud, there ariseth a vapour with a dissonant sound (like as when a red hot yron maketh

A keth an hiſſing being thruſt into water) and a ſmokie fume walmeth up with many turnings like waves. Hereupon ſtormes doe breed. And if this flatuoſitie or vapour doe ſtruggle and wreſtle within the cloud, from thence it commeth that thunderclaps be heard; but if it breake through ſtill burning, then flieth out the thunderbolt: if it bee longer time a ſtrugling, and cannot peirce through, then leames and flaſhes are ſeene. With theſe, the cloud is cloven; with the other, burſt in ſunder. Moreover, thunders are nothing els but the blows and thumps given by the fires beating hard upon the clouds: and therefore preſently the fierie chinkes and rifts of thoſe clouds do glitter and ſhine. Poſſible it is alſo, that the breath and wind elevated from the earth, being repelled backe, and kept downe by the ſtarres, and ſo held in and reſtrained within a cloud, may thunder, whiles Nature choketh the rumbling ſound, all the while it ſtriveth and quarrelleth; but sen-
B deth forth a cracke when it breaketh out, as wee ſee in a bladder puffed up with wind. Likewiſe it may be, that the ſame wind or ſpirit whatſoever, is ſet on fire by fretting and rubbing, as it violently paſſeth headlong downe. It may alſo be ſtricken by the conflict of two clouds, as if two ſtones hit one againſt another; and ſo the leames and flaſhes ſparkle forth. So as all theſe accidents happen by chance medley, and be irregular. And hereupon come thoſe brutiſh and vaine lightenings, ſuch as have no naturall reaſon, but are occaſioned by theſe impreſſions abovesaid. With theſe are mountaines and ſeas ſmitten: and of this kind bee all other blaſts and bolts that doe no hurt to living creatures. As for thoſe that come from above, and of ordinarie cauſes, yea, and from their proper ſtarres, they alwaies preſage and foretell future events. In like maner as touching the winds, or rather blaſts, I would not denie but that they may proceed from a
C drie exhalation of the earth, void of all moiſture: neither is it impoſſible, but that they doe ariſe out of waters, breathing and ſending out an aire, which neither can thicken into a miſt, nor gather into clouds: alſo they may be driven by the lugitation and impulſion of the Sunne, becauſe the wind is conceived to bee nought els but the fluctuation and waving of the aire, and that by many meanes alſo. For ſome we ſee to riſe out of rivers, firths, and ſeas, even when they be full and calme: as alſo others out of the earth, which winds they name *Altani*. And thoſe verily when they come backe againe from the ſea, are called *Tropæi*: if they goe onward, *Apogæi*.

Chap. XLIIII.

What is the reaſon of the reſounding and doubling of the Eccho.

D

BVt the windings of hils, and their often turnings, their many tops, their creſts and ridges alſo bending like an elbow or broken, and arched as it were into ſhoulders, together with the hollow noukes of vallies, do cut unequally the aire that reboundeth them fro: which is the cauſe of reciprocall voices called Ecchoes, anſwering one another in many places, when a man doth holla or houpe among them.

Chap. XLV.

Of winds againe.

E

NOw, there be certaine caves and holes which breed winds continually without end: like as that is one which we ſee in the edge of Dalmatia, with a wide mouth gaping, and leading to a deepe downefall: into which if you caſt any matter of light weight, be the day never ſo calme otherwiſe, there ariſeth preſently a ſtormie tempeſt like a whirlepuffe. The places name is Senta. Moreover, in the province Cyrenaica there is reported to bee a rocke conſecrated to the South-wind, which without prophanation may not be touched with mans hand; but if it be, preſently the South wind doth ariſe and caſt up heapes of ſand. Alſo in many houſes there bee hollow places deviſed and made by mans hand for receipt of wind, which being encloſed with ſhade and darkeneſſe, gather their blaſts. Whereby we may ſee how all winds have one cauſe or
F other. But great difference there is betweene ſuch blaſts, and winds. As for theſe, they bee ſetled and ordinarie, continually blowing; which, not ſome ſmall tracts & particular places, but whole lands doe feele; which are not light gales, nor ſtormie puffes, named *Auræ* and *Procellæ*, but ſimply called Winds, by the Maſculine name *Venti*: which whether they ariſe by the continuall motion of the Heaven, and the contrarie courſe of the Planets; or whether this wind bee that ſpirit of Nature that engendreth all things, wandering to and fro as it were in ſome wombe; or rather

the

the aire, beaten and driven by the unlike influences and raies of the ſtraying ſtarres or planets, G
and the multiplicitie of their beames: or whether all winds come from their owne ſtarres, namely theſe planets neerer at hand; or rather fall from them that be fixed in the firmament. Plaine and evident it is, that guided they be by an ordinarie law of Nature, not altogether unknowne, although it be not yet throughly knowne.

Chap. XLVI.

The natures and obſervations of the Winds.

THe old Greeke writers, not ſo few as twentie, have ſet downe and recorded their obſervations of the Winds. I mervell ſo much the more, that the world being H
ſo at diſcord, and divided into kingdomes, that is to ſay, diſmembred as it was; ſo many men have had care to ſeeke after theſe things, ſo intricate and hard to bee found out, and namely in time of warres and amid thoſe places, where was no ſafe lodging nor abode, and eſpecially when pirates and rovers, common enemies to mankind, held well neere all paſſages: I mervaile, I ſay, that at this day each man in his owne tract and countrey taketh more light and true knowledge of ſome things by their commentaries and bookes, who never ſet foot there, than they doe by the skill and information of home-borne inhabitants; whereas now in time of ſo bleſſed and joious peace, and under a prince who taketh ſuch delight in the progreſſe of the State and of all good arts, no new thing is learned by farther inquiſition, nay, nor ſo much as the inventions of old writers are through- I
ly underſtood. And verily it cannot bee ſaid, that greater rewards were in thoſe daies given, conſidering that the bountie of fortune was diſperſed, and put into many mens hands: and in truth moſt of theſe deepe clearkes and learned men, ſought out theſe ſecrets for no other reward or regard, than to doe good unto poſteritie. But now, mens manners are waxen old and decay; now, all good cuſtomes are in the waine: and notwithſtanding that the fruit of learning bee as great as ever it was, and the recompence as liberall, yet men are become idle in this behalfe. The ſeas are open to all, an infinite multitude of Sailers have diſcovered all coaſts whatſoever, they ſaile through and arrive familiarly at every ſhore: all for gaine and lucre, but none for knowledge and cunning. Their minds altogether blinded, and bent upon nothing but covetouſnes, never conſider that the ſame might with more ſafetie be performed by skill and K
learning. And therefore ſeeing there be ſo many thouſand poore ſailers that hazard themſelves on the ſeas, I will treat of the Winds more curiouſly and exquiſitly than perhaps beſeemeth the preſent worke that is begun.

Chap. XLVII.

Many ſorts of Winds.

MEn in old time obſerved foure Winds only, according to ſo many quarters of the world (and therefore *Homer* nameth no more:) a blockiſh reaſon this was, L
aſſoone after it was judged. The Age enſuing, added eight more; and they were on the other ſide in their conceit too ſubtile and conciſe. The Moderne ſailers of late daies, found out a meane betweene both: and they put unto that ſhort number of the firſt, foure winds and no more, which they tooke out of the later. Therefore every quarter of the heaven hath two winds apeece. From the equinoctiall ſunne-riſing bloweth the Eaſt wind *Subſolanus*: from the riſing therof in Mid-winter, the ſouth-eaſt *Vulturnus*. The former of theſe twaine the Greekes call *Apeliotes*, and the later *Eurus*. From the mid day, riſeth the South wind: and from the ſunne-ſetting in mid-winter the Southweſt, *Africus*. They alſo name theſe two, *Notus* and *Libs*. From the equinoctiall going downe of the Sunne, the Weſt wind *Favonius* commeth: but from that in Summer ſeaſon, the Northweſt *Corus*: and by the ſame Greekes they are tearmed *Zephyrus* and *Argeſtes*. From the North-waine M
or pole Arctike, bloweth the North wind *Septentrio*: betweene which and the Sunne riſing in Summer, is the Northeaſt wind *Aquilo*, named *Aparctias* and *Boreas* by the Greekes. A greater reckoning than this for number, is brought in by ſome, who have thruſt in foure more between; namely, *Thracias* betweene the North and the Summer ſetting of the Sunne: in like manner

Cecias

A *Cæcias* in the middeſt betweene the Northeaſt *Aquilo*, and that of the Sunne riſing in the equinoctiall *Sub-ſolanus*. Alſo, after the Sunne riſing in Summer, *Phæniceas* in the middeſt, between the Southeaſt and the South. Laſt of all, betweene the South and the Southweſt, *Lybonotus*, juſt in the middeſt, compounded of them both, namely, betweene the Noone ſteed, and the Sunſetting in Winter. But here they could not lay a ſtraw, and ſee to make an end. For others have ſet one more yet, called *Meſe*, betweene the Northeaſt wind *Boreas*, and *Cæcias*: alſo *Euronotus*, betweene the South and the Southweſt winds. Beſides all theſe, there be ſome Winds appropriate and peculiar to every nation, which paſſe not beyond one certaine tract and region: as namely *Scyros* among the Athenians, declining a little from *Argeſtes*; a Wind unknowne to other parts of Greece. In ſome other place it is more aloft, and the ſame then is called *Olympias*, as com-
B ming from the high hill Olimpus. But the uſuall and cuſtomable manner of ſpeech, underſtandeth by all theſe names *Argeſtes* only. Some call *Cæcias*, by the name of *Helleſpontias*: and give the ſame Winds in ſundrie places divers names. In the province likewiſe of Narbone, the moſt notorious Wind is *Circius*, and for violence inferiour to none, driving directly before it very often, the current at Oſtia into the Ligurian ſea. The ſame wind is not onely unknown in al other climates of the heaven, but reacheth not ſo much as to Vienna, a citie in the ſame province. As great & boiſterous a wind as he is otherwiſe, yet, a reſtraint he hath before he come thither, and is kept within few bounds by the oppoſition of a meane and ſmall hill. *Fabianus* alſo avoucheth, that the South winds enter not ſo farre as into Ægypt. Whereby, the law of Nature ſheweth it ſelfe plainely, that even Winds have their times and limits appointed.

C To proceed then, the Spring openeth the Sea for ſailers: in the beginning whereof, the Weſt Winds mitigate the winter weather, at what time as the Sun is in the 25 degree of Aquarius, and that is the ſixt day before the Ides of Februarie. And this order holdeth in manner with all other winds, that I will ſet down one after another: ſo that in every leap yeer ye anticipate & reckon one day ſooner, and then againe keepe the ſame rule throughout all the foure years following. Some call *Favonius* (which beginneth to blow about the ſeventh day before the Calends of March) by the name of *Chelidonius*, upon the ſight of the firſt ſwallowes: but many name it *Orinthias*, comming the 71 day after the ſhorteſt day in Winter; by occaſion of the comming of birds: which wind bloweth for nine daies. Oppoſite unto *Favonius* is the Wind which we called *Sub-ſolanus*. Vnto this Wind is attributed the riſing of the *Vergiliæ* or ſeven ſtars, in as many degrees of Tau-
D rus, ſixe daies before the Ides of May; which time is a ſoutherly conſtitution: and to this Wind the North is contrarie. Moreover, in the hoteſt ſeaſon of the Summer, the Dog-ſtarre ariſeth, at what time as the Sun entreth into the firſt degree of Leo, which commonly is the fifteenth day before the Calends of Auguſt. Before the riſing of this Starre for eight daies ſpace or thereabout, the Northeaſt winds are aloft, which the Greekes call *Prodromi*, forerunners. And two daies after it is riſen, the ſame winds hold ſtill more ſtiffely, and blow for the ſpace of fortie daies, which they name *Eteſiæ*. The Sunnes heat, redoubled by the hotneſſe of that ſtarre, is thought to be aſſuaged by them: and no winds are more conſtant, nor keepe their ſet times better than they. Next after them come the Southerne winds againe, which are uſually up, untill the Starre *Arcturus* riſeth, and that is nine daies before the Æquinoctiall in Autumne. With it entereth *Corus*,
E and thus *Corus* beginneth the Autumne. And to this *Vulturnus* is contrarie. After that equinoctiall, about foure and fortie daies, the *Vergiliæ* goe down, and begin Winter, which ſeaſon uſually falleth upon the third day before the Ides of November. This is the Winter Northeaſt wind, which is farre unlike to that in Summer, oppoſite and contrarie to *Africus*. Now, a ſeven-night before the Mid-winter day, and as much after, the ſea is allaied and calme for the ſitting and hatching of the birds Halciones, whereupon theſe daies tooke the name *Alcionis*: the time behind, plaieth the part of Winter. And yet theſe boiſterous ſeaſons full of tempeſts, ſhut not up the ſea: for pyrates and rovers at the firſt forced men with preſent perill of death, to run headlong upon their death, and to hazard themſelves in Winter ſeas; but now a daies covetouſneſſe cau-
F ſeth men to doe the like.

The coldeſt winds of all other, be thoſe which we ſaid to blow from the North pole, and together with them their neighbour, *Corus*. Theſe winds doe both allay and ſtill all others, and alſo ſcatter and drive away clouds. Moiſt winds are *Africus*, and eſpecially the South wind of Italie, called *Auſter*. Men report alſo, that *Cæcias* in Pontus gathereth and draweth to it ſelfe clouds. *Corus* and *Vulturnus*, are drie, but onely in the end when they give over. The Northeaſt and the North,

North, engender snow. The North wind also bringeth in haile, so doth *Corus*. The South wind is G
exceeding hote and troublous withall. *Vulturnus* and *Favonius* bee warme. They also bee drier than the East: and generally all winds from the North and West, are drier than from the South and East. Of all winds the Northerne is most healthfull: the Southerne wind is noisome, and the rather when it is drie; haply, because that when it is moist, it is the colder. During the time that it bloweth, living creatures are thought to bee lesse hungrie. The *Etesiæ* give over ordinarily in the night, and arise at the third houre of the day. In Spaine and Asia they blow from the East: but in Pontus, from the North: in other quarters, from the South. They blow also after the Mid-winter, when they be called *Orinthiæ*; but those are more mild, and continue fewer daies. Two there be that change their nature together with their site and place: The South wind in Affricke bringeth faire weather, and the North wind there is cloudie. All winds keepe their course in order for H
the more part, or els when one ceaseth, the contrarie beginneth. When some are laid, and the next to them doe arise, they goe about from the left hand to the right, according to the Sunne. Of their manner and order monthly, the prime or fourth day after the change of the Moone, doth most commonly determine. The same winds will serve to saile contrarie waies, by meanes of setting out the sailes: so as many times in the night, ships in sailing run one against another. The South wind raiseth greater billowes and more surging waves than the North: for that the South wind ariseth below from the bottome of the sea; the other blustereth aloft, and troubleth the top of the water. And therefore after Southerne winds, earthquakes are most hurtfull. The South wind in the night time is more boisterous, the Northerne wind in the day. The winds blowing from the East, hold and continue longer than those from the West. The Northren winds I
give over commonly with an odde number: which observation serveth to good use in many other parts of naturall things, and therefore the male winds are judged by the odde number. The Sun both raiseth and also laieth the winds. At rising and setting he causeth them to be aloft: at noone-tide, he represseth and keepeth them under, in Summer time. And therefore at mid-day or mid-night commonly the winds are downe and lie still, for both cold and heat if they be immoderate, doe spend and consume them. Also raine doth lay the winds: and most commonly from thence they are looked for to blow, where clouds breake and open the skie to be seene. And verily *Eudoxus* is of opinion (if wee list to observe the least revolutions) that after the end of every fourth yeere, not onely all winds, but other tempests and constitutions also of the weather, returne again to the same course as before. And alwaies the Lustrum or computation of the five yeers, begin- K
neth at the leape year, when the Dog star doth arise. And thus much concerning general winds.

Chap. XLVIII.

Of suddaine blasts.

NOw will we speake of suddaine blasts: which being risen (as hath beene said before) by exhalations of the earth, and cast downe againe; in the meane while appeare of many fashions, enclosed within a thin course of clouds newly overcast. For such as be unconstant, wandering, and rushing in manner of land flouds (as some men were of opinion, as wee have shewed) bring forth thunder and lightening. But if they come with a greater force, L
sway, and violence, and withal burst and cleave a drie cloud asunder al abroad, they breed a storm, which of the Greekes is called *Ecnephias*: but if the clist or breach bee not great, so that the wind be constrained to turn round, to rol and whirle in his discent, without fire, that is to say lightning, it makes a whirlepuffe or ghust called *Typhon*, that is to say, the storm *Ecnephias* aforesaid, sent out with a winding violence. This takes with it a peece broken out of a congealed cold cloud, turning winding, and rolling it round, and with that weight maketh the owne fall more heavie, and changeth from place to place with a vehement and suddaine whirling. The greatest danger and mischeefe that poore sailers have at sea, breaking not onely their crosse saile-yards, but also writhing and bursting in peeces the very ships: and yet a smal matter is the remedie for it, namely, the casting of vinegre out against it as it commeth, which is of nature most cold. The same storme bea- M
ting upon a thing, is it selfe smitten backe againe with a violence, and snatcheth up whatsoever it meeteth in the way aloft into the skie, carrying it backe, and swallowing it up on high. But if it breake out from a greater hole of the said cloud, by it so borne downe, and yet not altogether so broad, as the abovenamed storme *Procella* doth, nor without a cracke; they call this boisterous wind

A wind *Turbo*, caſting downe and overthrowing all that is next it. The ſame, if it be more hote and catching a fire as it rageth, is named *Preſter*; burning, and withall laying along, whatſoeuer it toucheth and encountreth.

Chap. xlix.

Other enormious kinds of Tempeſts.

NO *Typhon* commeth from the North, ne yet any *Ecnephias* with Snow, or while Snow lieth on the ground. This tempeſtuous wind, if when it brake the cloud burned light withall, hauing fire of the owne before, and catched it not afterward, it is verie lightning; and differeth from *Preſter*, as the flame from a cole of fire. Againe, *Preſter* ſpreadeth broad with a flaſh and blaſt; the other gathereth round with forcible violence. *Typhon* moreouer or *Vortex*, differeth from *Turben* in flying backe: and as much as a craſh from a cracke. The ſtorme *Procella* from them both, in breadth: and to ſpeake more truly, rather ſcattereth than breaketh the cloud. There riſeth alſo upon the Sea, a darke miſt, reſembling a monſtrous beaſt; and this is euer a terrible cloud to the ſailers. Another likewiſe called a Columne or Pillar, when the humour and water ingendred, is ſo thicke and ſtiffe congealed, that it ſtandeth compact of it ſelfe. Of the ſame ſort alſo is that cloud which draweth water to it, as it were into a long pipe.

Chap. l.

In what Lands lightnings fall not.

IN Winter and Summer ſeldome are there any lightnings, and that is long of contrarie cauſes: becauſe in winter the aire is driuen cloſe togither, and thickened with a deeper courſe of clouds: beſides, all the exhalations breathing and riſing out of the earth being ſtarke, congealed, and frozen hard, doe extinguiſh cleane what fierie vapour ſoeuer otherwiſe they receiue: which is the reaſon that Scythia and other cold frozen quarters thereabout, are free from lightnings. And Ægypt likewiſe upon the contrarie cauſe, and exempt from lightnings; namely, exceeding heat: for the hote and drie exhalations of the earth, gather into very ſlender, thin, and weake clouds. But in the Spring, and Autumne, lightnings are more rife; becauſe in both thoſe ſeaſons, the cauſes as well of Summer as Winter, are confuſed and corrupt. And this is the reaſon alſo, that lightnings are common in our Italie; for that the aire being more moueable and wauering, by reaſon of a kinder Winter and a cloudie Summer, is alwaies of the temperature of Spring or Autumne. In thoſe parts alſo of Italie which lie off from the North, and encline to warmth, (as namely in the tract about Rome and Campania) it lighteneth in Winter and Summer alike, which happeneth in no other part thereof.

Chap. li.

Sundry ſorts of Lightnings, and Wonders thereof.

VErie many kinds of Lightnings are ſet downe by Authours. Thoſe that come drie, burne not at all, but onely diſſipate and diſpearſe. They that come moiſt, burne not neither, but blaſt things, and make them looke duskiſh. Now a third kind there is, which they call Bright and Cleare, and that is of a moſt ſtraunge and wonderfull nature; whereby tunnes and ſuch like veſſels are drawne drie, and their ſides, hoopes, and heads, neuer toucht therewith or hurt, nor any other ſhewe and token thereof is left behind: Gold, copper, and ſiluer money is melted in the bagges, and yet the verie bagges no whit ſcortched, no nor the waxe of the ſeale hurt and defaced, or put out of order. *Martia* a noble Ladie of Rome being great with child, was ſtrucke with lightning: the child ſhee went withall was killed within her, and ſhee without any harme at all lived ſtill. Among the *Catiline* prodigies it is found upon record, that *M. Herennius* (a Counſellor and States-man of the incorporate towne Pompeianum) was in a faire and cleare day ſmitten with lightning.

G

Chap. lii.
Of obseruations as touching Lightning.

THe auncient Tuscanes by their learning doe hold, that there be nine gods that send forth Lightnings, and those of eleven sorts: for *Iupiter* (say they) casteth three at once. The Romanes haue obserued two of them, and no more; attributing those in the day time to *Iupiter*: and them in the night, to *Summanus* or *Pluto*. And these verily be more rare, for the cause afore-named; namely, the coldnesse of the aire above. In Hetruria, they suppose that lightnings breake also out of the earth, which they call *Infera*, *i.* Infernall; and such be made in mid-winter. H
And these they take to be terrene and earthly, and of all most mischieuous and execrable: neither be those generall and vniuersall lightnings, nor proceeding from the starres, but from a verie neare and more troubled cause. And this is an evident argument for distinction, that all such as fall from the upper skie aboue, strike aslant and side-wise: but those which they call earthly, smite straight and directly. But the reason why these are thought to issue forth of the earth is this; because they fall from out of a matter nearer to the earth, for as much as they leaue no markes of a stroke behind: which are occasioned by force not from beneath, but comming full against. Such as haue searched more subtillie into these matters, are of opinion, that these lightnings come from the Planet *Saturne*, like as the burning lightning from *Mars*: And with such lightning was Volsinij (a most wealthie cittie of the Tuscanes) burnt full and whole to ashes. I
Moreouer, the Tuscanes call those lightnings Familiar, which presage the fortune of some race, and are significant during their whole life: and such are they that come first to any man, after he is newly entred into his owne patrimonie or familie. Howbeit, their judgement is, that these priuate lightnings are not of importance and fore-tokening above ten yeeres; unlesse they happen either upon the day of first marriage, or of wedding. As for publicke lightnings, they be not of force above 30 yeeres, except they chaunce at the very time that townes or colonies be erected and planted.

Chap. liii. *Of raising or calling out Lightnings by coniuration.*

IT appeareth vpon record in Chronicles, that by certaine sacrifices and prayers, Lightnings may be either compelled or easily entreated to fall upon the earth. There K
goeth a report of old in Hetruria, that such a lightning was procured by exorcisms and conjurations, when there entred into the cittie Volsinij (after all the territory about it was destroyed) a monster, which they named *Volta*. Also, that another was raised and conjured by *Porsenna* their King. Moreouer, *L. Piso* (a writer of good credit) reporteth in his first booke of Annales, that *Numa* before him practised the same feat many a time and often: and when *Tullus Hostilius* would haue imitated him and done the like (for that he obserued not all the ceremonies accordingly) was himselfe strucke and killed with lightning. And for this purpose, sacred groues we haue and altars, yea and certaine sacrifices due thereto. And among the *Iupiters* surnamed *Statores*, *Tonantes*, and *Feretrij*, we haue heard that one also was called *Elicius*.
Sundry and diuers are mens opinions as touching this point, and euery man according to his L
owne liking and fansie of his mind. To beleeue that Nature may be forced and commaunded, is a very audacious and bold opinion: but it is as blockish on the other side and senseless, to make her benefits of no power and effect; considering that in the interpretation of Lightning, men haue thus farre forth proceeded in skill and knowledge, as to foretell when they will come at a set and prescript day: and whether they will fordoe and frustrate the daungers pronounced, or rather open other destinies, which lie hidden: and an infinite sort of publicke and privat experiments of both kinds are to be found. And therefore (since it hath so pleased Nature) let some men be resolved herein, and others doubtfull: some may allow thereof, and others condemne the same. As for us, we will not omit the rest which in these matters are worth remembrance.

M

Chap. liiii. *Generall rules of Lightning.*

THat the Lightning is seene before the thunderclap is heard, although they come indeed joyntly both togither, it is certainly knowne. And no marveile, for the eye is quicker to see light, than the eare to heare a sound. And yet Nature doth so order the number and measure,

A measure, that the stroke and the sound should accord together. But when there is a noise, it is a signe of the lightning proceeding of some naturall cause, and not sent by some God: and yet evermore this is a breath or wind that commeth before the thunderbolt: and hereupon it is, that every thing is shaken and blasted ere it be smitten: neither is any man strucken, who either saw the lightning before, or heard the thunderclap. Those lightnings that are on the left hand, be supposed to be luckie and prosperous, for that the East is the left side of the world: but the comming therof is not so much regarded as the returne; whether the fire leape back after the stroke given; or whether after the deed done and fire spent, the spirit and blast aboveſaid, retire backe againe. In that respect the Tuscanes have devided the Heaven into 16 parts. The first is from the North to the Sunnes rising in the Equinoctiall line: the second, to the Meridian line, or the
B South: the third, to the Sunne-setting in the Equinoctiall: and the fourth, taketh up all the rest from the said West to the North starre. These quarters againe they have parted into 4 regions apeece: of which 8 from the Sun-rising, they called the Left; and as many againe from the contrarie part, the Right. Which considered, most dreadfull and terrible are those lightnings, which from the Sunne-setting reach into the North: and therefore it skilleth very much, from whence lightnings come, and whither they goe: the best thing observed in them is, when they returne into the Easterly parts. And therefore, when they come from that first and principall part of the skie, and have recourse againe into the same, it is holden for passing good hap: and such was the signe and token of victories given (by report) to *Sylla* the Dictatour. In all other parts of the element, they be lesse fortunate or fearfull. They that haue written of these matters, have delive-
C red in writing, that there be lightnings, which to utter abroad is held unlawfull; as also to giue eare unto them, if they be disclosed, unlesse they be declared either to parents, or to a friend and guest. How great the vanitie is of this observation, was at Rome, upon the blasting of *Iunoes* temple, found by *Scaurus* the Consull, who soone after was President of the Senat. It lightneth without thunder, more in the night than day time. Of all creatures that have life and breath, man onely it doth not alwaies kill; the rest, it dispatcheth presently. This priviledge and honour, wee see Nature hath given to him; whereas otherwise so many great beasts surpasse him in strength. All other creatures smitten with lightning, fall downe upon the contrarie side; man onely (unlesse he turne upon the parts stricken) dyeth not. Those that are smitten from above upon the head, stie downe and sinke directly. Hee that is strucken watching, is found dead with
D his eyes winking and close shut: but whosoever is smitten sleeping, is found open eyed. A man thus comming by his death, may not by law be burned: Religion hath taught, that hee ought to be enterred and buried in the earth. No living creature is set a fire by lightning, but it is breathlesse first. The wounds of them that be smitten with thunderbolts, are colder than all the bodie besides.

Chap. lv.

What things are not smitten with Lightning.

E OF all those things which growe out of the earth, Lightning blasteth not the Laurell tree; nor entreth at any time above five foot deepe into the ground: and therefore, men fearfull of lightning, suppose the deeper caves to be the surest and most safe: or els booths made of skinnes of sea-beasts, which they call Seales, or Sea-calves; for of all creatures in the sea, this alone is not subject to the stroke of lightning: like as of all flying foules the Ægle, (which for this cause is imagined to be the armour-bearer of *Iupiter*, for this kind of weapon.) In Italie betweene Tarracina and the temple of *Feronia*, they gave over in time of warre, to make towres and forts; for not one of them escaped, but was overthrowne with lightning.

Chap. lvi.

F

Of straunge and prodigious raine, to wit, of Milke, Blood, Flesh, Iron, Vvooll, Tyles, and Brickes.

BEsides these things above, in this lower region under Heaven, we find recorded in monuments, that it rained milke and blood, when *M. Acilius* and *C. Porcius* were Consuls. And many times els besides it rained flesh, as namely, whiles *L. Volumnius* and *Serv. Sul-*

pitius were Conſuls: and looke what of it the foules of the aire caught not up nor carried away, it never putrified. In like manner, it rained yron in the Lucanes countrey, the yeere before that *M. Craſſus* was ſlaine by the Parthians, and togither with him all the Lucanes his ſouldiers, of whome there were many in his armie. That which came downe in this raine, reſembled in ſome ſort Sponges: and the Wiſards and Soothſayers being ſought unto, gave warning to take heed of wounds from above. But in the yeere that *L. Paulus* and *C. Marcellus* were Conſuls, it rained wooll about the caſtle Cariſſa, neare to which a yeare after, *T. Annius Milo* was ſlaine. At the time that the ſame *Milo* pleaded his owne cauſe at the barre, there fell a raine of tyles and bricks, as it is to be ſeene in the records of that yeere.

Chap. lvii.

Of the ruſtling of Armour and ſound of Trumpets heard from Heaven.

IN the time of the Cimbrian warres, we have been told, that Armour was heard to ruſtle, and the Trumpet to ſound out of Heaven. And this happened very often both before and after thoſe warres. But in the third Conſulſhip of *Marius*, the Amerines and Tudertes ſaw men in armes in the skie, ruſhing and running one againſt another from the Eaſt and Weſt; and might behold thoſe of the Weſt diſcomfited. That the very firmament it ſelfe ſhould be of a light fire, it is no marvaile at all; for often times it hath been ſeene, when clouds have caught any greater deale of fire.

Chap. lviii.

Of Stones falling downe from the skie.

AMong the Greekes there is much talke of *Anaxagoras Clazomenius*, who by his learning and skill that he had in Aſtronomie, foretold in the ſecond yeere of the 78 Olympias, what time a ſtone ſhould fall from out of the Sunne: and the ſame happened accordingly in the day time, in a part of Thracia neere the river Aegos; which ſtone is ſhewed at this day as bigge as a waine load, carrying a burnt and aduſt colour: at what time as a comet or blazing ſtarre alſo burned in thoſe nights. Which if any man beleeve that it was fore-ſignified, muſt needs alſo confeſſe, that this divinitie or fore-telling of *Anaxagoras* was more miraculous and wonderfull than the thing it ſelfe: and then farewell the knowledge of Natures workes, and welcome confuſion of all, in caſe we ſhould beleeue that either the Sunne were a ſtone, or that ever any ſtone were in it. But, that ſtones fall often times downe, no man will make any doubt. In the publicke place of Exerciſe in Abydos, there is one at this day upon the ſame cauſe preſerved and kept for to be ſeene, and held in great reverence: It is but of a meane and ſmall quantitie, yet it is that which the ſelfeſame *Anaxagoras* (by report) fore-ſignified that it ſhould fall in the mids of the earth. There is one alſo at Caſſandria, which was in old time uſually called Potidæa, a colonie from thence deducted. I my ſelfe have ſeene another in the territorie of the Vocantians, which was brought thither but a little before.

Chap. lix.

Of the Rainebow.

THoſe which wee call Rainebowes, are ſeene often without any wonder at all, or betokening any great matter: for they portend not ſo much as rainy or faire daies, to truſt upon. But manifeſt it is, that the Sunne beames ſtriking upon an hollow cloud, when their edge is repelled, are beaten backe againſt the Sunne: and thus ariſeth varietie of colours by the mixture of clouds, aire, and fiery light together. Certes, they neuer are knowne but oppoſite to the Sunne; nor at any time otherwiſe than in forme of a Semicircle: ne yet in the night ſeaſon, although *Ariſtotle* ſaith there was a Rainbow ſeen by night: howbeit he confeſſeth, that it could not poſſibly be but at the full of the moone. Now they happen for the moſt part in winter, namely, from the Autumne Equinoctiall, as the daies decreaſe and waxe ſhorter. But as daies growe longer againe, that is to ſay, after the Spring Equinoctiall, they be not ſeen no more than about the ſummer Sunſtead, when daies are at longeſt. But in Bruma, that is to ſay, when they be ſhorteſt,

A test, they chaunce very often. The same appeare aloft, when the Sunne is low; and below, when hee is aloft. Also, they be of narrower compasse, when the Sunne either riseth or setteth, but their body spreadeth broad: and at noone narrower it is and small, yet greater and wider in circumference. In Summer time they be not seene about noon-tide, but after the Autumne Equinoctiall, at all houres; and never more at once than twaine. The rest of the same nature, I see few men doe make any doubt of.

Chap. lx.

Of Haile, Snow, Frost, Mist, and Dew.

B HAile is ingendred of Raine congealed into an Ice: and Snow of the same humor growne togither, but not so hard. As for Frost, it is made of dewe frozen. In winter Snowes fall, and not Haile. It haileth oftner in the day time than in the night, yet haile sooner melteth by farre than snow. Mists be not seene neither in Summer, nor in the cold weather. Dewes shew not either in frost, or in hote seasons; neither when winds be up, but only after a calme and cleere night. Frostes drie up wet and moisture; for when the yce is thawed and melted, the like quantitie of water in proportion is not found.

Chap. lxi.

Of the shapes of Clouds.

C SVndry colours and diuers shapes are seene in clouds, according as the fire intermingled therin, is either more or lesse.

Chap. lxii.

Of the properties of weather in divers places.

MOreover, many properties there be of the Weather, peculiar to certaine places: the nights in Africke, be dewie in winter. In Italie, about Locri and the lake Velinus, there is not a day but a Rainbow is seene. At Rhodes and Syracusæ, the aire is never so dimme and cloudie, but one houre or other the Sunne shineth out. But such things as these shall be re-
D lated more fitly in due place. Thus much of the Aire.

Chap. lxiii.

Of Earth and the nature thereof.

THe Earth followeth next: unto which alone of all parts of the world, for her singular benefites wee have given the reverent and worshipfull name of Mother. For like as the Heaven is the (mother) of God, even so is she of men. She it is that taketh us when we are comming into the world, nourisheth us when we are new born: and once being come abroad, ever sustaineth & beareth us
E up: and at the last when we are rejected and forlorne of all the world besides, she embraceth us: then most of all other times, like a kind mother, she covereth us all over in her bosome: by no merit more sacred than by it, wherwith she maketh us holy and sacred; even bearing our tumbes, monuments, and titles, continuing our name, and extending our memorie; thereby to make recompence and weigh against the shortnesse of our age: whose last power wee in our anger wish to be heavie unto our enemie, and yet she is heavie to none, as if we were ignorant that she alone is never angry with any man. Waters ascend up, and turn into clouds, they congeale and harden into haile, swell they doe into waves and billowes, and downe they hasten headlong into brookes and land flouds. The aire is thickened with clouds, and rageth with winds and stormes. But she is bountifull, mild, tender over us and indulgent, readie at all times to attend
F and wait upon the good of mortall men. See what she breeds being forced! nay, what shee yeeldeth of her owne accord! what odoriferous smels, and pleasant savours! what holesome juices and liquours, what soft things to content our feeling, what lovely colours doth shee give to please our eie, how faithfully and justly doth she repay with usurie that which was lent and credited out unto her! Finally, what store of all things doth shee feed and nourish for our sake! Alas

poore wretch, pestiferous and hurtfull creatures, when the vitall breath of the aire was too blame G
to give them life, shee could not otherwise chuse but receive them, after they were sowne in her;
and being once engendred and bred, keepe and maintaine them. But in that they prooved afterwards bad and venomous, the fault was to bee laid upon the parents that engendred them, and not to bee imputed unto her. For, shee entertaineth no more a venemous serpent after it hath stung a man: nay, more than that, shee requireth punishment, for them that are slow and negligent of themselves to seeke it. Shee it is that bringeth forth medicinable hearbes, and evermore is in travaile to be delivered of some thing or other, good for man. Over and besides, it may bee thought and beleeved, that for very pittie of us she ordained and appointed some poisons, that when wee were wearie of our life, cursed famine (most adverse and crosse of all other to the merits of the earth) should not consume and waste us with languishing and pining consumption, and H
so procure our death; that high and steepe rocks should not dash and crush our bodies in peeces; nor the overthwart and preposterous punishment by the halter, wreath our neckes, and stop that vitall breath, which we seeke to let out and be rid of: last of all, that we might not worke our owne death in the deepe sea, and being drowned, feed fishes, and be buried in their bellies, ne yet the edge and point of the sword cut and pierce our bodie, and so put us to dolorous paine. So that it is no doubt, but in a pittifull regard and compassion of us, she hath engendred that poyson, by one gentle draught whereof, going most easily downe, wee might forgoe our life, and die without any hurt and skin broken of our bodie, yea, and diminish no one drop of bloud: without greevous paine, I say, and like onely to them who be athirst: that being in that manner dead, neither foule of the aire, nor wild beast prey upon or touch our bodies, but that he should be re- I
served for the earth, who perished by himselfe and for himselfe: and, to confesse and say the troth, the earth hath bred the remedie of all miseries, howsoever we have made it a venome and poison to our life. For after the like sort we employ yron and steele, which wee cannot possibly bee without. And yet we should not doe well and justly to complaine, in case she had brought it forth for to doe hurt and mischeefe. Now surely to this onely part of Nature and the world, wee are unthankfull, as though shee served not mans turne for all dainties; not for contumelie and reproch to bee misused. Cast shee is into the sea, or els to let in peeres and frithes, eaten away with water. With yron tooles, with wood, fire, stone, burdens of corn tormented she is every houre: and all this much more to content our pleasures and wanton delights than to serve us with naturall food and necessarie nourishment. And yet, these misuages which shee abideth above, and in her out- K
ward skin, may seeme in some sort tollerable. But wee, not satisfied therewith, peirce deeper and enter into her very bowels, wee search into the vaines of gold and silver, wee mine and dig for copper and lead mettals. And for to seeke out gemmes and some little stones, we strike pits deep within the ground. Thus wee plucke the very heart-strings out of her, and all to weare on our finger one gemme or pretious stone, to fulfill our pleasure and desire. How many hands are worne with digging and delving, that one joint of our finger might shine againe. Surely, if there were any devils or infernal spirits beneath, ere this time verily these mines (for to feed covetousnes and roiot) would have brought them up above ground. Marvaile we then, if she hath brought forth some things hurtfull and noisome? But savage beasts (I well thinke) ward and save her, they keep
sacrilegious hands from doing her injurie. Nay ywis it is nothing so. Dig wee not amongst dra- L
gons and serpents? and together with veines of gold, handle we not the roots of poisoned and venomous hearbes? Howbeit, this goddesse wee find the better appaied and lesse discontented for all this misusage, for that the end and issue of all this wealth, tendeth to wickednesse, to murder and warres, and her whome wee drench with our bloud, wee cover also with unburied bones. Which nevertheless, as if shee did reproove and reproch us for this rage and furie of ours, shee her selfe covereth in the end, and hideth close even the wicked parts of mortall men. Among other imputations of an unthankfull mind, I may well count this also, That wee bee ignorant of her nature.

Chap. lxiiii. *Of the forme of the earth.* M

THe first and principall thing that offereth it selfe to bee considered, is her figure, in which by a generall consent we doe all agree. For surely wee speake and say nothing more commonly, than the round ball of the earth; and confesse that it is a globe enclosed within two poles. But yet the forme is not of a perfect and absolute roundle, considering so great heigth

of

A of hils,& ſuch plains of downs: howbeit, if the compaſſe therof might be taken by lines, the ends of thoſe lines would meet juſt in circuit, and prove the figure of a juſt circle. And this the very conſideration of naturall reaſon doth force and convince, although there were not thoſe cauſes which we alleadged about the heaven. For in it the hollow bending convexitie boweth and beareth upon it ſelfe, and every way reſteth upon the centre thereof, which is that of the earth. But this, being ſolid and cloſe compact, ariſeth ſtill like as if it ſwelled, ſtretching and growing without forth. The heaven bendeth and inclineth toward the centre, but the earth goeth from the centre, whiles the world with continuall volubilitie and turning about it, driveth the huge and exceſſive globe thereof into the forme of a round ball.

B

Chap. lxv.

Of the Antipodes, whether there be any ſuch. Alſo of the roundneſſe of water.

MVch adoe there is here, and great debate betweene learned men; and contrariwiſe thoſe of the leaud and ignorant multitude: for they hold, that men are overſpread on all parts upon the earth, and ſtand one againſt another, foot to foot: alſo that the Zenith or point of the Heaven is even and alike unto all: and in what part ſoever men be, they go ſtill and tread after the ſame manner in the middes. But the common ſort, aske the queſtion and demaund, How it happeneth that they oppoſite juſt againſt us, fall not into Heaven? as if there were not a reaſon
C alſo readie, That the Antipodes againe ſhould marvaile why we fell not downe? Now there is reaſon that commeth betweene, carrying a probabilitie with it even to the multitude, were it never ſo blockiſh and unapt to learne; That in an uneven and unequall Globe of the Earth, with many aſcents and degrees, as if the figure thereof reſembled a Pine apple, yet nevertheleſſe it may be well enough inhabited all over, in every place. But what good doth all this, when another wonder as great as it ariſeth? namely, That it ſelfe hangeth, and yet falleth not togither with us: as if the power of that Spirit eſpecially, which is encloſed in the World, were doubted: or that any thing could fall, eſpecially when Nature is repugnant thereto, and affordeth no place whither to fall: for like as there is no ſeat of Fire, but in fire; of Water, but in water; of Aire and Spirit, but in aire; even ſo, there is no roome for Earth but in earth, ſeeing all the Elements be-
D ſides, are readie to put it backe from them. Howbeit, wonderfull it remaineth ſtill, How it ſhould become a Globe, conſidering ſo great flatneſſe of Plaines and Seas? Of which doubtfull opinion, *Dicearchus* (a right learned man as any other) is a favourer; who, to ſatisfie the curious endeavors of Kings and Princes, had a charge and commiſſion to levell and take meaſure of mountaines: of which he ſaid, that Pelion the higheſt, was a mile and a halfe high by the plumb rule; and collected thereby, that it was nothing at all to ſpeake of, in compariſon of the univerſall rotunditie of the whole. But ſurely in my conceit, this was but an uncerteine gueſſe of his, ſince that I am not ignorant, that certaine tops of the Alpes, for a long tract together, ariſe not under fiftie miles in heigth.

But this is it that troubleth the vulgar ſort moſt of all, if they ſhould be forced to beleeve, that
E the forme of water alſo, gathereth round in the top. And yet there is nothing in the whole world more evident to the ſight, for the drops every where not onely as they hang, appeare like little round bals, but alſo if they light upon duſt, or reſt upon the hairie downe of leaves, we marke to keepe a perfect and exquiſite roundneſſe. Alſo in cups that are filled brim full, the middle part in the top ſwell moſt. Which things, conſidering the thinneſſe of the humour, and the ſoftneſſe thereof ſetling flat upon it ſelfe, are ſooner found out by reaſon than the eie. Nay, this is a thing more wonderfull, that when cups are filled to the full, put never ſo little more liquor thereto, the overplus will run over all about: but contrariwiſe it falleth out, if you put in any ſolide weights, yea, and it were to the weight of twentie deniers or French crownes in a cup. Forſooth the reaſon is this, that things received within forth, lift up the liquour aloft to the top, but poured up-
F on the tumour that beareth aloft above the edges, muſt needs glide off and run by. The ſame is the reaſon why the land cannot be ſeene by them that ſtand upon the hatches of the ſhip, but verie plainly at the ſame time from the top of the maſtes. Alſo as a ſhip goeth afarre off from the land, if any thing that ſhineth and giveth light bee faſtened to the top-gallant, it ſeemeth from the land ſide to goe downe and ſinke into the ſea by little and little, untill at laſt it bee hidden

cleane,

cleane. Last of all, the very Ocean, which we confesse to bee the utmost and fartheſt bound environing the whole globe, by what other figure els could it hold together and not fall downe, ſince there is no banke beyond it to keepe it in? And even this alſo commeth about to bee as great a wonder, how it commeth to paſſe, although the ſea grow to be round, that the utmoſt edge thereof falleth not downe? Againſt which, if that the ſeas were even, flat, and plaine, and of that forme as they ſeeme to be, the Greeke Philoſophers to their owne great joy and glorie doe conclude: & prove by Geometricall ſubtile demonſtration, that it cannot poſſibly be that the water ſhould fall. For ſeeing that waters run naturally from aloft to the lower parts, and that all men confeſſe, that this is their nature, and no man doubteth that the water of the ſea, came ever in any ſhore ſo farre as the devexitie would have ſuffered: doubtleſſe it appeareth, that the lower a thing is, the neerer it is to the centre; and that all the lines which from thence are ſent out to the next waters, are ſhorter than thoſe which from the firſt waters reach to the utmoſt extremity of the ſea. Hereupon the whole water, from every part thereof, bendeth to the centre, and therefore falleth not away, becauſe it inclineth naturally to the inner parts. And this we muſt beleeve, that Nature the workemaiſtris framed and ordained ſo, to the end that the earth, which being drie, could not by it ſelfe alone without ſome moiſture, keepe any conſiſtence; and the water likewiſe could not abide and ſtay, unleſſe the earth upheld it: in which regard they were mutually to embrace one another, and ſo be united, whiles the one opened all the creekes and noukes, and the other ran wholly into the other, by the meanes of ſecret veines within, without and above, like ligaments to claſp it, yea, & ſo break out at the upmoſt tops of the hils: whether being partly carried by a ſpirit, and partly expreſſed forth by the ponderoſitie of the earth, it mounteth as it were in pipes: and ſo far is it off from danger of falling away, that it leapeth up to the higheſt and loftieſt things that bee. By which reaſon it is evident alſo, why the ſeas ſwell not and grow, notwithſtanding ſo many rivers daily run into them. G H I

Chap. lxvi.

How the water is united and knit to the earth.

THe earth therefore in his whole globe is in the middeſt thereof, hemmed in with the ſea, running round about it. And this needeth not to be ſought out by reaſon & argument, for it is knowne alreadie by good proofe and experience. K

Chap. lxvii.

Navigation upon the ſea and great rivers.

FRom Gades and *Hercules* pillars, the Weſt ſea is at this day navigable, and ſailed all over, even the whole compaſſe of Spaine and France. But the North Ocean was for the moſt part diſcovered, under the conduct of *Auguſtus Cæſar* of famous memorie, who with a fleet compaſſed all Germanie, and brought it about as farre as to the cape of the Cimbrians: and ſo from thence having kenned and viewed the vaſt & wide ſea, or els taken knowledge therof by report, he paſſed to the Scythian climate and thoſe cold coaſts, frozen & abounding with too much moiſture. For which cauſe there is no likelyhood, that in thoſe parts the ſeas are at an end, whereas there is ſuch exceſſive wet that all ſtands with water. And neer unto it from the Eaſt, out of the Indian ſea, that whole part under the ſame clime of the world which bendeth toward the Caſpian ſea, was ſailed throughout by the Macedonian armies, when *Seleucus* & *Antiochus* reigned, who would needs have it ſo, that *Seleucus* & *Antiochus* ſhould beare their names. About the Caſpian ſea alſo many coaſts and ſhores of the Ocean have been diſcovered, and by peecemeale, rather than all whole at once, the North of one ſide or other, hath beene ſailed or rowed over. But yet to put all out of conjecture, there is a great argument collected by the Meere Mæotis, whether it bee a gulfe and arme of that Ocean (as I perceive many have beleeved) or an overflowing of the ſame, and devided from it by a narrow peece of the continent. In another ſide of Gades from the ſame, Weſt, a great part of the South or Meridian goulfe, round about Mauritania is at this day ſailed. And the greater part verily of it, like as of the Eaſt alſo, the victories of great *Alexander* viewed and compaſſed on everie ſide, even as farre as to the Arabian goulfe. Wherein, when *Caius Cæſar*, the ſonne of *Auguſtus*, L M

warred

warred in thoſe parts, the markes and tokens, by report, were ſeen remaining after the Spaniards ſhipwracke. *Hanno* likewiſe, in the time that Carthage flouriſhed in puiſſance, ſailed round about from Gades to the utmoſt bounds and lands-end of Arabia, and ſet downe that navigation and voiage of his in writing: like as alſo *Himilco*, at the ſame time was ſent out in a voiage to diſcover the utter coaſts of Europe. Moreover, *Cornelius Nepos* writeth, that in his time one *Eudoxus* (a great ſailer) at what time as hee fled from king *Lathyrus*, departed out of the Arabian gulfe, and held on his courſe as farre as Gades. Yea, and *Cælius Antipater* long before him, reporteth, That he ſaw the man who had ſailed out of Spaine into Æthiopia for trafficke of merchandiſe. The ſame *Nepos* maketh report as touching the compaſſing about of the North, that unto *Qu. Metellus Celer* (Colleague to *C. Afranius* in the Conſulſhip, but at that time Proconſull in Gaule) certaine Indians were given by a king of the Suevians, who as they ſailed out of India for trafficke, as merchants, were driven by tempeſt, and caſt upon Germanie. Thus the ſeas flowing on every ſide about this globe of the earth, divided and cut into parcels, bereave us of a part of the world: ſo as neither from thence hether, nor from hence thither, there is a thorow faire and paſſage. The contemplation wherof, ſerving fit to diſcover and open the vanitie of men, ſeemeth to require and challenge of me, that I ſhould project to the view of the eie, how great all this is whatſoever it bee, and wherein there is nothing ſufficient to ſatisfie and content the ſeverall appetite of each man.

Chap. lxviii.

What portion of the earth is habitable.

NOw firſt and formoſt me thinkes, men make this reckoning of the earth, as if it were the juſt halfe of the globe, and that no portion of it were cut off by the Ocean: which notwithſtanding, claſping round about all the middeſt thereof, yeelding forth and receiving againe all other waters beſides, and what exhalations ſoever that go out for clouds, and feeding withall the very ſtarres, ſo many as they be, and of ſo great bigneſſe; what a mightie ſpace thinke you, wil it be thought to take up and inhabite, and how little can there be left for men to inhabite? Surely the poſſeſſion of ſo vaſt and huge a deale, muſt needs bee exceeding great and infinite. What ſay you then to this, That of the earth which is left, the heaven hath taken away the more part? For whereas there bee of the heaven five parts, which they call Zones: all that lieth under the two utmoſt, to wit, on both ſides about the poles, namely, this here which is called *Septentrio*, *i.* the North, and the other overagainſt it, named the South, it is overcharged with extreme and rigorous cold, yea, and with perpetuall froſt and yce. In both Zones, it is alwaies dim and darke, and by reaſon that the aſpect of the more mild and pleaſant planets is diverted cleane from thence, the light that is, ſheweth little or nothing, & appeareth white, with the froſt onely. Now, the middle of the earth, wheras the Sunne hath his way, and keepeth his courſe, ſcorched and burnt with flames, is even parched and fried againe, with the hote gleames thereof, being ſo neer. Thoſe two onely on either ſide about it, namely, betweene this burnt Zone and the two frozen, are temperate: and even thoſe have not acceſſe and paſſage the one to the other, by reaſon of the burning heat of the ſaid planet. Thus you ſee, that the heaven hath taken from the earth three parts: and what the Ocean hath plucked from it beſides, no man knoweth. And even that one portion remaining unto us, I wot not whether it be not in greater danger alſo. For, the ſame Ocean entring (as we wil ſhew) into many armes and creekes, keepeth a roaring againſt the other gulfes and ſeas within the earth, & ſo neer commeth unto them, that the Arabian gulfe is not from the Ægyptian ſea above 115 miles: the Caſpian likewiſe from the Ponticke but 375. Yea, and the ſame floweth betweene, and entreth into ſo many armes, as that thereby it devideth Affricke, Europe, and Aſia aſunder. Now, what a quantitie of the land it taketh up, may be collected and reckoned at this day by the meaſure and proportion of ſo many rivers, and ſo great Meres. Adde thereto both lakes and pooles: and withall take from the earth the high mountaines, bearing up their heads aloft into the skie, ſo as hardly the eie can reach their heigths: the woods beſides, and ſteep diſcents of the vallies, the wilderneſſes, and waſt wilds left deſert upon a thouſand cauſes. Theſe ſo many peeces of the earth, or rather as moſt have written, this little pricke of the world (for ſurely the earth is nothing els in compariſon of the whole) is the onely matter of our glorie. This, I ſay,

Is the very ſeat thereof: here wee ſeeke for honours and dignities, here wee exerciſe our rule and G
authoritie: here we covet wealth and richeſſe: here all mankind is ſet upon ſtirres and troubles: here wee raiſe civile warres ſtill one after another: and with mutuall maſſacres and murders wee make more roume in the earth. And to let paſſe the publick furious rages of nations abroad, this is it, wherein we chaſe and drive out our neighbour borderers, and by ſtealth dig turfe from our neighbours ſoile to put it unto our owne: and when a man hath extended his lands, and gotten whole countries to himſelfe farre and neere, what a goodly deale of the earth enjoieth hee? and ſay that hee ſet out his bounds to the full meaſure of his covetous deſire, what a great portion thereof ſhall he hold when he is once dead, and his head laid.

Chap. lxix. H

That the earth is in the middeſt of the world.

THat the earth is in the middeſt of the whole world, it appeareth by manifeſt and undoubted reaſons: but moſt evidently, by the equall houres of the equinoctiall. For, unleſſe it were in the middeſt, the Aſtrolabe and inſtruments called *Diophæ*, have proved, that nights and daies could not poſſibly bee found equall: and thoſe aboveſaid inſtruments above all other, confirm the ſame: ſeeing that in the equinoctiall by one and the ſame line both riſing and ſetting of the Sun are ſeene, but the Summer Sunne riſing, and the Winter ſetting, by their owne ſeverall lines. Which could by no meanes happen, but that the earth reſteth in the Centre. I

Chap. lxx.

Of the unequall riſing of the Starres: of the Eclipſe, both where and how it commeth.

NOw three Circles there be enfolded within the Zones afore-named, which diſtinguiſh the inequalities of the daies: namely, the Summer Solſtitiall Tropicke, from the higheſt part of the Zodiacke in regard of us, toward the North clime. And againſt it, another called the Winter Tropicke, toward the other Southerne Pole: and in like manner the Equinoctiall, which goeth in the mids of the Zodiacke circle. The cauſe of the reſt, which we wonder K
at, is in the figure of the very earth, which together with the water, is by the ſame arguments knowne to be like a Globe: for ſo doubtleſſe it commeth to paſſe, that with us the ſtars about the North pole, never go down; and thoſe contrariwiſe of the Meridian, never riſe. And again, theſe here be not ſeen of them, by reaſon that the globe of the earth ſwelleth up in the mids between. Again, Trogloditine and Ægypt, confining next upon it, never ſet eie upon the North pole ſtars: neither hath Italie a ſight of Canopus, or that which they name *Berenices haire*. Likewiſe another, which under the Empire of *Auguſtus*, men ſurnamed *Cæſaris Thronon*: and yet they be ſtarres there, of ſpeciall marke. And ſo evidently bendeth the top of the earth in the riſing, that Canopus at Alexandria ſeemeth to the beholders, elevate above the earth almoſt one fourth part of a ſigne: but if a man looke from Rhodes, the ſame appeareth after a ſort, to touch the very Horizon: and in Pontus, where the elevation of the North pole is higheſt, not ſeene at all: yea, and this ſame Pole at Rhodes is hidden, but more in Alexandria. In Arabia, all hid it is at the firſt watch of the night in November; but at the ſecond, it ſheweth. In Meroe, at Mid-ſummer in the evening, it appeareth for a while: but ſome few daies before the riſing of Arcturus, ſeene it is with the very dawning of the day. Saylers by their voyages, find out and come to the knowledge of theſe ſtarres moſt of any other, by reaſon that ſome ſeas are oppoſite unto ſome ſtarres; but other lie flat and encline forward to other: for that alſo, thoſe pole-ſtarres appeare ſodainly, and riſing out of the ſea, which lay hidden before under the winding compaſſe, as it were of a ball. For the heaven riſeth not aloft in this higher pole, as ſome men have given out: elſe ſhould theſe ſtars be ſeene in every place: but thoſe that unto the next Sailers are ſuppoſed to be higher, the M
rie ſame ſeeme to them afarre off drowned in the ſea. And like as this North pole ſeemeth to be aloft unto thoſe that are ſituate directly under it, ſo to them that be gone ſo farre as the other devexitie or fall of the earth, thoſe aboveſaid ſtars riſe up aloft there, whiles they decline downward which here were mounted on high. Which thing could not poſſibly fal out but in the figure

of

A of a ball. And hereupon it is, that the inhabitants of the Eaſt perceive not the eclipſes of Sunne and Moone in the evening, no more than thoſe that dwell Weſt, in the morning: but thoſe that be at noone in the South, they ſee verie often. At what time as *Alexander* the Great wan that famous victorie at Arbela, the moone (by report) was eclipſed at the ſecond houre of the night: but at the very ſame time in Sicilie, ſhe aroſe. The eclipſe of the Sunne, which chaunced before the Kalends of Maij, when as *Vipſanus* and *Fonteius* were Conſuls, (and that was not many yeeres paſt) was ſeene in Campania betweene the 7 and 8 houres of the day: but *Corbulo* (a generall Commaunder then in Armenia) made report, that it was ſeene there betweene the tenth and eleventh houres of the ſame day: by reaſon that the compaſſe of the globe diſcovereth and hideth ſome things to ſome, and other to others. But, and if the earth were plaine and levell, all
B things ſhould appeare at once to all men; for neither ſhould one night be longer than another, ne yet ſhould the day of 12 houres appeare even and equall to any, but to thoſe that are ſeated in the mids of the earth, which now in all parts agree and accord together alike.

Chap. lxxi.

What is the reaſon of the day light upon earth.

AND hence it commeth, that it is neither night nor day at one time in all parts of the world; by reaſon that the oppoſition of the globe bringeth night, and the round compaſſe and circuit thereof, diſcovereth the day. This is knowne by many experiments.
C In Affricke and Spaine, there were raiſed by *Annibal*, high watch towres: and in Aſia for the ſame feare of rovers and pyrats, the like helpe of beacons was erected. Wherein it was obſerved often times, that the fires giving warning afore-hand (which were ſet a burning at the ſixt houre of the day) were deſcried by them that were fartheſt off in Aſia, at the third houre of the night. *Philonides*, the courrier or Poſt of the ſame *Alexander* above-named, diſpatched in nine houres of the day a 1200 ſtadia, even as farre as from Sicyone to Elis: and from thence againe (albeit he went down hill all the way) he returned oftentimes, but not before the third hour of the night. The cauſe was, for that he had the Sunne with him in his firſt ſetting out to Elis; and in his returne backe to Sicyone, he went full againſt it, met with it, and ere he came home over-paſſed
D it, and left it in the Weſt behind, going from him. Which is the reaſon alſo, that they who by day-light ſaile Weſtward in the ſhorteſt day of the yeere, rid more way than thoſe who ſaile all the night long at the ſame time, for that the other doe accompanie the Sunne.

Chap. lxxii.

The Gnomonicke Art of the ſame matter: as alſo of the firſt Diall.

ALſo the Inſtruments ſerving for the houres, as Quadrants and Dials, will not ſerve for all places: but in every 300 ſtadia, or 500 at the fartheſt, the ſhadowes that the Sunne caſteth, doe chaunge: and therefore the ſhadow of the Style in the Dyall, which they
E call the *Gnomon*, in Ægypt, at noone-tide, in the Equinoctiall day, is little more in length than halfe the Gnomon. But in the cittie of Rome, the ſhadowe wanteth the ninth part of the Gnomon. In the towne Ancona, it is longer than it a 35 part. But in that part of Italie which is called Venice, at the ſame time and houre, the ſhadow and the Gnomon be all one.

Chap. lxxiii.

Where and when there be no ſhadowes at all.

IN like manner they ſay, that in the towne Syene (which is above Alexandria 50 ſtadia) at noone-tide in the middes of Summer there is no ſhadow at all: and for farther experiment therof, let a pit be ſunke in the ground, and it will be light all over in every corner:
F whereby it appeareth, that the ſunne then is juſt and directly over that place, as the very Zenith thereof. Which alſo at the ſame time happeneth in India, above the river Hypaſis, as *Oneſicratus* hath ſet downe in writing. Yea and it is for certaine knowne, that in Berenice, a citie of the Troglodites, and from thence 4820 ſtadia in the ſame country, at the towne of Ptolemais (which was built at the firſt upon the very banke of the Red-ſea, for the pleaſure of chaſing and hunting

of

of Elephants) the selfesame is to be seene 45 daies before the Summer Sunstead, and as long after: and that for 90 daies space, all shadowes are cast into the South. Againe, in the Iland Meroe, which is the capitall place of the Æthiopian nation, and is inhabited 5000 stadia from Syene upon the river Nilus, twice in the yeere the shadowes are gone, and none at all seene: to wit, when the sunne is in the 18 degree of *Taurus*, and in the 14 of *Leo*. In the countrey of the Oretes within India, there is a mountaine named Maleus, neere unto which the shadowes in Summer are cast into the South, and in winter to the North. There, for 15 nights and no more, is the starre Charles-waine neere the pole to be seene. In the same India, at Patales (a most famous and frequented port) the Sunne ariseth on the right hand, and all shadowes fall to the South. Whiles *Alexander* made abode there, *Onesicritus* a captaine of his, wrote that it was observed there, That the North starre was seene the first part only of the night: also in what places of India there were no shadowes, there the North starre appeared not: and that those quarters were called * *Ascia*, neither kept they any reckoning of houres there. G H

* i. Without shadow.

Chap. lxxiiii.

Where twise in the yeere, the shadowes goe contrarie waies.

But throughout all Trogliditine, *Cratosthenes* hath written, that the shadowes two times a yeere for 45 daies, fall contrary waies.

Chap. lxxv. I

Where the day is longest, and where shortest.

It commeth thus to passe, that by the variable increment of the day-light, the longest day in Meroe doth comprehend 12 Equinoctiall houres, and eight parts of one houre above: but in Alexandria 14 houres, in Italie 15, in Britaine 17: where, in Summer time the nights being light and short, by infallible experience shew that which reason forceth to beleeve: namely, that at Midsummer time as the Sunne approcheth neere to the pole of the world, the places of the earth lying underneath, hath day continually for six moneths: and contrariwise night, when the Sunne is remote as farre as Bruma. The which, *Pythias* of Massiles hath written of Thule, an Island distant Northward from Brittaine sixe daies sailing: yea, and some affirme the same of Mona, which is an Island distant from Camalodunum, a towne of Brittaine, about two hundred miles. K

Chap. lxxvi. *Of Dials and Quadrants.*

This cunning of shadowes and skill named Gnonomice, *Anaximenes* the Milesian, the disciple of *Anaximander* abovenamed, invented: and he was the first also that shewed in Lacedæmon the Horologe or Diall, which they call Sciotericon.

Chap. lxxvii. *How the daies are observed.*

The very day it selfe men have after diverse manners observed. The Babylonians count for day all the time betweene two sunne risings. The Athenians, betweene the settings. The Vmbrians from noone to noone. But all the common sort every where, from day-light untill it be darke. The Romane Priests, and those that have defined and set out a civile day, likewise the Ægyptians and *Hipparchus*, from midnight to midnight. That the spaces betweene lights, are greater or lesse betwixt Sunne risings, neer the Sunne-steeds, than the equinoctials, it appeareth by this, that the position of the Zodiake about the middle parts thereof, is more oblique and crooked, but toward the Sunne-steed more streight and direct. L

Chap. lxxviii.

The reason of the varietie and difference of sundrie countries and nations. M

Hereunto we must annex and join such things as are linked to cœlestiall causes. For doubtlesse it is, that the Æthyopians by reason of the Sunnes vicinitie, are scorched and tanned with the heat thereof, like to them that be adust and burnt, having their beards and bush of haire curled. Also, that in the contrarie clime of the world to it, in the frozen and icie re-

gions

A gions, the people have white skins, haire growing long downeward, & yellow; but they be fierce & cruell by reason of the rigorous cold aire: howbeit, the one as wel as the other in this change and mutabilitie, are dull and grosse: and the very legs doe argue the temperature. For in the Æthyopians the juice or bloud is drawne upward again by the nature of heat: but among the nations Septentrionall, the same is driven to the inferiour parts, by reason of moisture apt to fall downeward. Here there breed noisome and hurtfull wild beasts: but there, bee engendred creatures of sundrie and divers shapes, especially foules and birds of many formes and figures. Tall they are of bodily stature, as well in one part as the other: in the hote regions, by occasion of the naturall motion of fire; in the other, for the nourishment by moisture. But in the middest of the earth, there is an holesome mixture from both sides: the whole tract is fertile and fruitfull for all
B things, the habite of mens bodies of a meane and indifferent constitution. In the colour also there sheweth a great temperature. The fashions and manners of the people are civile and gentle, their sences cleare and lightsome, their wits pregnant and capable of all things within the compasse of Nature. They also beare soveraigne rule, and sway Empires and Monarchies, which those uttermost nations never had: yet true it is, that even they who are out of the temperate Zones, may not abide to bee subject nor accommodate themselves unto these: for such is their savage and brutish nature that it urgeth them to, living solitarie by themselves.

Chap. lxxix.

Of Earthquakes.

C THe Babylonians were of this opinion, that earthquakes and gaping chinkes, and all other accidents of that nature, are occasioned by the power and influence of the Planets: but of those three onely, to which they attribute lightenings. And by this means, namely, as they keepe their course with the Sunne, or meet with him: and especially when this concurrence is about the quadratures of the heaven. And surely if it be true that is reported of *Anaximander* the Milesian naturall Philosopher, his prescience and foreknowledge of things, was excellent & worthie of immortalitie: who, as they say, fore-warned the Lacedæmonians to looke well unto their citie and dwelling houses, for that there was an earthquake toward: which fell out accordingly: when not onely their whole citie was shaken, overthrowne, and fell downe, but also a great part of
D the mountaine Taygetus, which bare out like to the poupe of a ship, broken as it were from the rest, came downe too, and with the fall, covered all over the foresaid ruins. There is reported another shrewd guesse of *Pherecydes*, who was *Pythagoras* his maister, and the same likewise divine and propheticall: hee by drawing water out of a pit, both foresaw and also foretold an earthquake there. Which if they be true, how farre off, I pray you, may such men seeme to bee from God, even whiles they live here upon earth? But as for these things verily, I leave it free for every man to weigh and deeme of them according to their owne judgement: and for mine owne part I suppose that without all doubt the winds are the cause thereof. For never beginneth the earth to quake, but when the sea is still; and the weather so calme withall, that the birds in their flying cannot hover and hang in the aire, by reason that al the spirit and wind which should beare them
E up, is withdrawne from them: ne yet at any time, but after the winds are laid, namely, when the blast is pent and hidden within the veines and hollow caves of the earth. Neither is this shaking in the earth any other thing, than is thunder in the cloud: nor the gaping chinke thereof ought els, but like the clift whereout the lightening breaketh, when the spirit enclosed within, struggleth and stirreth to goe forth at libertie.

Chap. lxxx.

Of the gaping chinkes of the earth.

F AFter many and sundrie sorts the earth therefore is shaken, and thereupon ensue wondrous effects. In one place the walls of cities are laid along: in another they be swallowed up in a deepe and wide chawme: here are cast up mightie heapes of earth; there, are let out rivers of water; yea, and sometimes fire doth breath forth, and hote springs issue abroad: and in another place the course and channell of rivers is turned clean away, and forced backward. There goeth before and commeth with it a terrible noise: one while a rumbling more like the loowing

and bellowing of beaſts: otherwhile it reſembleth a mans voice, or els the clattering and ruſtling of armour and weapons, beating one upon another; according to the qualitie of the matter that catcheth and receiveth the noiſe, or the faſhion either of the hollow crankes within, or the cranie by which it paſſeth, whiles in a narrow way it taketh on with a more ſlender and whiſtling noiſe: and the ſame keepeth an hoarſe din in winding and crooked caves; rebounding again in hard paſſages; roaring in moiſt places; waving and floting in ſtanding waters; boiling and chafing againſt ſolide things. And therfore oftentimes a noiſe is heard without any earthquake: and never at any time ſhaketh it ſimply after one and the ſame manner, but trembleth and waggeth to and fro. As for the gaping chinke, ſometimes it remaineth wide open, and ſheweth what it hath ſwallowed up: otherwhiles it cloſeth up the mouth, and hideth all: and the earth is brought together ſo againe, as there remaine no markes and tokens to be ſeene: notwithſtanding many a time it hath devoured cities, and drawne into it a whole tract of ground and fields. Sea coaſts and maritine regions moſt of all other, feele earthquake: neither are the hillie countries without this calamitie. For, I my ſelfe have knowne for certaine, that the Alpes and Apenine have oftentimes trembled. In the Autumne alſo & Spring there happen more earthquakes than at other times, like as lightenings. And hereof it is, that Fraunce and Ægypt leaſt of all other, bee ſhaken: for that in Ægypt the continuall Summer, and in Fraunce the hard winter, is againſt it. In like maner earthquakes are more rife in the night than in day time. But the greateſt of all others uſe to be in the morning and evening. Toward day light there bee many: and if by day, it is uſually about noone. They fortune alſo to be when the Sunne and Moone are eclipſed, becauſe in thoſe times all tempeſts are aſleepe and laid to reſt. But eſpecially, when after much raine there followeth a great time of heat; or after heat, ſtore of raine. G H I

Chap. lxxxi.

Signes of earthquake comming.

SAilers alſo have a certaine fore-knowledge thereof, and gueſſe not doubtfully at it: namely, when the waves ſwell ſuddainely without any gale of wind, or when they in the ſhip are ſhocked with billowes ſhaking under them. And then are the things ſeene to quake which ſtand within the ſhips, as well as thoſe in houſes, and with a ruſtling noiſe give warning beforehand. The foules likewiſe of the aire ſit not quietly without feare. In the skie alſo there is a ſigne thereof: for when there will bee an earthquake, there goeth before, either in day time, or ſoone after the Sunne is gone downe, a thin ſtreake or line, as it were, of a cloud lying out in a great length. Moreover, the water in wels and pits is more thicke and troubled than ordinarie, and not without a ſtinking ſent. K

Chap. lxxxii.

Remedies or helpes againſt earthquakes toward.

BVt a remedie there is for the ſame, ſuch as vaults and holes in many places do yeeld: for they vent out and breath forth the wind that was conceived there before: a thing obſerved in certaine townes, which by reaſon they ſtand hollow, and have many ſinkes and vaults digged to rid and convey away their filth, are leſſe ſhaken. Yea, and in the ſame towns, thoſe parts which be pendant, are the ſafer: as is well ſeene in Naples, where that quarter thereof which is ſolide and not hollow, is ſubject to ſuch caſualties. And in houſes the arches are moſt ſafe, the angles alſo of walls, yea, and thoſe poſts which in ſhaking will jog to and fro every way. Moreover, walls made of bricke or earth, take leſſe harme when they be ſhaken in an earthquake. And a great difference there is in the very kind and manner of earthquakes, for the motion is after many ſorts. The ſafeſt is, when houſes as they rocke, keepe a trembling and warbling noiſe: alſo when the earth ſeemeth to ſwell up in riſing: and againe to ſettle downe and ſinke with an alternative motion. Harmeleſſe it is alſo, when houſes run on end together by a contrarie ſtroke, and butt or jur one againſt another: for the one moving doth withſtand the other. The bending downeward in maner of waving, and a certaine rolling like to ſurging billowes, is it that is ſo dangerous & doth all the miſcheefe: or when the whole motion beareth and forceth it ſelfe to one ſide. Theſe quakings and tremblings of the earth give over when the wind is once vented out: but if they continue ſtil, then they ceaſe not until fortie daies end: yea, and many times it is longer ere they ſtay: for as much as ſome of them have laſted for the ſpace of a yeere or two. L M

Chap.

A

Chap. lxxxiii.

Monstrous Earthquakes seene never but once.

THere happened once (which I found in the bookes of the Tuscanes learning) within the territorie of Modena, (whiles *L. Martius* and *Sex. Iulius* were Consuls) a great strange wonder of the Earth: for two hilles encountred together, charging as it were, and with violence assaulting one another, yea and retiring againe with a most mightie noise. It fell out in the day time: and betweene them there issued flaming fire and smoke mounting up into the skie: while a great number of Romane Gentlemen (from the high way Æmylia) and a multitude of servants, yea and passengers by, or wayfaring men, stood and beheld it. With this conflict and
B running of them together, all the villages upon them were dashed and broken in peeces: verie much cattell that was within, dyed therewith. And this happened the yeere before the warre of our associates: which I doubt, whether it were not more pernicious to the whole land of Italie, than the civile warres. It was no lesse monstrous a wonder that was knowne also in our age, in the very last yeere of *Nero* the Emperor (as we have shewed in his actes) when medowes and olive rowes (notwithstanding the great publicke port-way lay betweene) passed overthwart one into anothers place, in the Marrucine territorie, within the lands of *Vectius Marcellus* a Gentleman of Rome, Procurator under *Nero* in his affaires.

C

Chap. lxxxiiii.

Wonders of Earthquakes.

THere happen together with Earthquakes, deluges also and inundations of the sea, to wit, infused and entring into the earth with the same aire and wind, or else received into the hollow receptacle, as it setleth downe. The greatest Earthquake within the remembrance of man, was that which chaunced during the Empire of *Tiberius Cæsar*, when 12 cities of Asia were over-turned and laid flat in one night. But the Earthquakes came thickest and most together in the Punick warre, when within one yeere there were reported at Rome to have ben seven and fiftie. In which yeere verily, when the Carthaginians and Romans fought a battaile at Thrasymenus lake, neither of both armies tooke knowledge of a right great earthquake. Neither is
D this a simple evill thing, nor the daunger consisteth onely in the very Earthquake and no more; but that which it portendeth, is as bad or worse. Never abode the citie of Rome any earthquake, but it gave warning before-hand, of some straunge accident and unhappie event following.

Chap. lxxxv.

In what places the Seas have gone backe.

THe same cause is to be rendred of some new hill or peece of ground, not seene before; when as the said wind within the earth, able to huffe up the ground, was not of power sufficient to breake foorth and make issue. For there groweth firme land not onely by that which rivers bring in (as the Ilands Echinades, which were heaped and raised up by the river
E Achelous; and so by Nilus the greater part of Ægypt, into which, if we beleeue *Homer*, from the Iland Pharus, there was a cut by sea of a day and nights sailing:) but also by the retiring and going backe of the sea; as the same Poet hath written of the *Circeæ*. The like (by report) happened both in the haven of Ambracia, for ten miles space; and also in that of the Athenians, for five miles, neere Pireæum: also at Ephesus, where sometime the sea beat upon the temple of *Diana*. And verily (if we give eare to *Herodotus*) it was all a sea from above Memphis to the Æthiopian hils: and likewise from the plaines of Arabia. It was sea also about Ilium, and the flat of Teuthrania; and all that levell whereas the river Mæander now runneth by goodly medowes.

Chap. lxxxvi.

The reason of Islands that newly appeare out of the sea.

F

THere be lands also that put forth after another manner, and all at once shew on a sodaine in some sea: as if Nature cryed quittance with her selfe, and made even, paying one for another; namely, by giving againe that in one place, which those chawmes and gaping gulfes tooke away in another.

Chap. lxxxvii.

What Ilands have ſprung up, and at what times.

THoſe famous Ilands long ſince, to wit, Delos and Rhodes, are recorded to have growne out of the ſea: and afterwards, others that were leſſe, namely, Anaphe beyond Melos; and Nea, betweene Lemnus and Helleſpont. Alone alſo, betweene Lebedus and Teos: Thera likewiſe, and Therasia, among the Cyclades; which ſhewed in the fourth yeere of the 135 Olympias. Moreover, among the ſame Ilands 130 yeeres after, Hiera, which is the ſame that Automate. And two furlongs from it, after 110 yeeres, Thia, even in our time, upon the 8 day before the Ides of Iuly, when *M. Iunius Syllanus* and *L. Balbus* were Conſuls.

Chap. lxxxviii.

What Lands the Seas have broken in betweene.

EVen within our kenning and neare to Italie, betweene the Ilands Æoliæ; in like manner neare to Creta, there was one ſhewed it ſelfe with hote fountaines out of the ſea, for a mile and a halfe: and another in the third yeere of the 143 Olympias, within the Tuſcane gulfe, and this burned with a violent wind. Recorded it is alſo, that when a great multitude of fiſhes floted ebbe about it, thoſe perſons died preſently that fed therof. So they ſay, that in the Campaine gulfe, the Pithecuſæ Ilands appeared. And ſoone after, the hill Epopos in them (at what time as ſodainly there burſt forth a flaming fire out of it) was laid level with the plain champion. Within the ſame alſo there was a towne ſwallowed up by the ſea: and in one earthquake there appeared a ſtanding poole; but in another (by the fall and tumbling downe of certaine hils) there grewe the Iland Prochyta: For after this manner alſo Nature hath made Ilands. Thus, ſhe disjoyned Sicilie from Italie, Cyprus from Syria, Eubœa from Bœotia, Atalante and Macris from Eubœa, Besbycus from Bithynia, Leucoſtia from the promontorie and cape of the Syrenes.

Chap. lxxxix.

What Ilands became to ioyne unto the Maine.

AGaine, ſhee hath taken Ilands from the Sea, and joyned them to the firme land; and namely, Antiſſa to Lesbos, Zephyria to Halicarnaſſus, Aëthuſa to Myndus, Dromiſcos and Perne to Miletus, and Narthecuſa to the promontorie Parthenius. Hybanda, ſometime an Iland of Ionia, is now diſtant from the ſea 200 ſtadia. As for Syrie, Epheſus hath it now in the midland parts far from the ſea. So Magneſia, neighbour to it, hath Deraſitas and Sophonia. As for Epidaurus and Oricum, are no more Ilands at this day.

Chap. xc.

What Lands have been turned wholly into Sea.

NAture hath altogether taken away certaine Lands: and firſt and formoſt where as now the ſea Atlanticum is, it was ſometime the Continent for a mightie ſpace of ground; if wee give credit to *Plato*. And ſoone after in our Mediteranean ſea, all men may ſee at this day how much hath been drowned up, to wit, Acarnania by the inward gulfe of Ambracia; Achaia within that of Corinth; Europe and Aſia within Propontis and Pontus. Over and beſides, the ſea hath broken through Leucas, Antirrhium, Helleſpont, and the two Boſphori.

Chap. xci.

What Lands have ſwallowed up themſelves.

AND now to paſſe over armes of the ſea and lakes. The very earth hath devoured and buried her ſelfe: to wit, that moſt high hill Cybotus, with the town Curites; Sipylus in Magneſia: and in the ſame place before-time, the moſt noble citie called Tantalus: the territories of Galanis and Gamale in Phœnice, togither with the very cities. Phogium alſo, a paſſing high hill in Æthiopia, as if the very ſtronds and Continent were not to be truſted, but they alſo muſt worke hurt and miſchiefe.

A

Chap. xcii.

What Cities have been drowned with the Sea.

THe sea Pontus hath overwhelmed Pyrrha and Antyssa about Mæotis, Elice, and Bura, in the gulfe of Corinth: whereof, the markes and tokens are to be seene in the deepe. Out of the Iland Cea, more than 30 miles of ground was lost sodainly at once, with many a man besides. In Sicilie also the sea came in, and had away halfe the citie Thindaris, and whatsoever Italy nourseth, even all betweene it and Sicilie. The like it did in Bœotia and Eleusina.

B

Chap. xciii.

Of the strange wonders of the Land.

FOr, let us speake no more of Earthquakes, and whatsoever else of that kind; and namely, of the graves and Sepulchres of Cities, buried and extant to be seene. But discourse we rather of the wonders, than the mischiefes wrought by Nature in the earth. And surely the Storie of cœlestiall things was not more hard to be uttered and declared: the wealth is such of mettals and mines, in such varietie, so rich, so fruitfull, rising still one under another for so many ages; notwithstanding that daily there is so much wasted and consumed throughout the world, with fires, ruines, shipwracks, warres, and fraudulent practises: yea and so much spent with ryot
C and superfluous vanities, by so many men living, that it is infinite: yet see, how many sorts of jemmes there be still, so painted and set out with colours? In precious stones, what varietie of sundrie colours? and how bespotted are they! And among them, behold the whitenesse and bright hew of some one, excluding all else but only light. The vertue and power of medicinable fountaines: the continuall burning so many hundred yeeres together of fire issuing forth in so many places: the deadly dampes and exhalations in some places, either sent out of pits when they were sunke, or else from the very native seat and position of the ground; present death in one place to the birds and foules of the aire only (as at Soracte, in a quarter neere unto the citie:) in other, to all other living creatures, save onely man: yea, and sometime to men also, as in the territories of Sinuessa and Puteoli. Which dampe holes, breathing out a deadly aire, some
D call, *Charoneæ Scrobes, i. Charons* ditches. Likewise in the Hirpines land, that of Amsanctus, a cave neere unto the temple of *Nephites*, which as many as enter into, die presently. After the like manner, at Hierapolis in Asia there is another such, hurting all that come to it but only the Priest of *Cybele*, the great mother of the Gods. In other places there be also caves and holes of a Propheticall power: by the exhalation of which, men are intoxicate, and as it were drunken, and so foretell things to come, as at Delphi, that most renowmed Oracle. In all which things, what other reason can any mortall man make, than the divine power of Nature diffused and spred through all, which breaketh forth at times in sundry sorts?

E

Chap. xciiii.

Of certaine Lands that evermore doe quake.

SOme parts of the earth there be, that shake and tremble under mens feet as they goe: and namely, in the territorie of the Gabians, not farre from Rome citie, there be almost two hundred acres of ground which tremble as horsemen ride over them: and likewise in the territorie of Reate.

Chap. xcv.

Of Islands ever floting and swimming.

F

CErtaine Islands are alwaies waving and never stand still, as in the countrey about Cæcubum, Reate abovenamed, Mutina, and Statonia. Also in the Lake Vadimonis, and neer the waters Cutyliæ, there is a shaddowie darke grove, which is never seene in one place a day and night together. Moreover, in Lydia, the Isles Calanucæ, are not onely driven to and fro by winds, but also many be shoved and thrust with long poles, which way a man will: a thing that sa-

ved many a mans life in the warre against *Mithridates*. There be other little ones also in the river Nymphæus called Saltuares [or Dauncers,] because in any consort of Musicians singing, they stirre and move at the stroke of the feet, keeping time and measure. In the great Lake of Italie Tarquinienſis, two Islands carrie about with them groves and woods: one while they are in fashion three square, another while round, when they close one to the other by the drift of winds; but never foure square. G

Chap. xcvi.

In what lands it never raineth. Also many strange wonders and miracles of the earth, and other elements heaped together.

H

Paphos hath in it a famous temple of *Venus*: upon a certaine floore and altar whereof, it never raineth. Likewise in Nea, a towne of Troas, a man shall never see it raine about the image of *Minerva*. In the same also the beasts killed for sacrifice, if they be left there, never putrifie. Neere to Harpasa, a towne in Asia, there stands a rocke of stone of a strange and wonderous nature: lay one finger to it, and it will stirre, but thrust at it with your whole bodie, it will not move, but stiffely resist. Within the demie Island of the Tauri, and cittie Parasinum, there is a kind of earth that healeth all wounds. But about Assos in Troas, there growes a stone, wherewith all bodies are consumed, and thereupon Sarcophagus it is called. Two hils there be neere the river Indus: the nature of the one is to hold fast all manner of yron, and of the other, not to abide it: and therefore if a mans shoe soll be clouted with hob nailes, in the one of them a man cannot pluck I away his foot, and in the other hee can take no footing at all. Noted it is, that in Locri and Crotone there was never pestilence knowne, nor any trouble or daunger by earthquake. And in Lycia ever after an earthquake, it hath been faire weather for fortie daies. In the territorie of Arda, if corne be sowed, it never commeth up. At the altars Murtiæ in the Veientian field, likewise in Tusculanum and the wood Cyminia, there be certaine places, wherein whatsoever is pitched into the ground, can never be plucked up againe. In the Crustumine countrey all the hey there growing, is hurtfull in the same place: but be it once without it, good and holsome it is.

Chap. xcvii. K

What is the reason of the reciprocall ebbe and flow of the seas: and where it is that they keepe no order, and are without reason.

Of the nature of waters much hath beene said: but the sea-tide that it should flow and ebbe againe, is most mervellous of all other. The manner thereof verily is divers, but the cause is in the Sunne and Moone. Betweene two risings of the Moon, they flow twice, and twice goe backe, and alwaies in the space of foure and twentie houres. And first as hee riseth aloft together with the world, the tides swell, and anone againe, as it goeth from the heigth of the Meridian line, and enclineth Westward, they slake: againe, as she moveth from the West, under our horison, and approcheth to the point contrarie to the Meridian, they flow, and then they are received L backe into the sea untill she rise againe: and never keepeth the tide the same houre that it did the day before: for it waiteth and giveth attendance upon the Planet, which greedily draweth with it the seas, and evermore riseth to day in some other place than it did yesterday. Howbeit the tides keepe just the same times betweene, and hold alwaies sixe houres apeece: I meane not of every day and night or place indifferently, but onely the equinoctiall. For in regard of houres, the tides of the sea are unequall: for as much as by day and night the tides are more or lesse one time than another: in the equinoctiall onely they are even and alike in all places. A very great argument this is, full of light, to convince that grosse and blockish conceit of them who are of opinion, that the planets being under the earth, loose their power: and that their vertue beginneth when they are above onely. For they shew their effects as well under as above the earth, M as well as the earth which worketh in all parts. And plaine it is, that the Moone performeth her operations as wel under the earth, as when we see her visibly aloft: neither is her course any other beneath, than above our horizon. But yet the difference and alteration of the Moone is manifold, and first every seven daies: for whiles she is new, the tides be but small untill the first quarter:

for

A for as ſhe groweth bigger, they flow more, but in the full they ſwell and boile moſt of all. From that time they begin againe to be more mild: and in the firſt daies of the wain unto the ſeventh, the tides are equall: and againe when ſhe is devided on the other ſide, and but halfe Moon, they encreaſe greater. And in the Conjunction or the change, they are equall to the tides of the full. And evidently it appeareth, that when ſhe is Northerly, and retired higher and farther from the earth, the tides are more gentle, than when ſhee is gone Southerly: for then ſhee worketh neerer hand, and putteth forth her full power. Every eight yeere alſo, and after the hundreth revolution of the Moone, the ſeas returne to the beginning of their motions, and to the like encreaſe and growth: by reaſon that ſhe augmenteth all things by the yeerly courſe of the Sunne: for as much as in the two equinoctials they ever ſwel moſt, yet more in that of the Autumne, than the Spring:
B but nothing to ſpeak of in Mid-winter, and leſſe at Mid-ſummer. And yet theſe things fall not out juſt in theſe very points and inſtants of the times which I have named, but ſome few daies after: like as neither in the full nor in the change, but afterward: ne yet preſently ſo ſoone as the heaven either ſheweth us the Moone in her riſing, or hideth her from us at her ſetting, or as ſhee declineth from us in the middle climate, but later almoſt by two equinoctiall houres. For as much as the effect of all influences and operations in the heaven reach not ſo ſoone unto the earth, as the eieſight pierceth up to the heaven: as it appeareth by lightnings, thunders, and thunderbolts. Moreover, all tides in the maine Ocean, overſpread, cover and overflow much more within the land, than in other ſeas beſides: either becauſe the whole and univerſall element is more courageous than in a part: or for that the open greatneſſe and largeneſſe thereof, feeleth more effectu-
C ally the power of the planet, working forcibly as it doth farre and neere at libertie, than when the ſame is pent and reſtrained within thoſe ſtreights. Which is the cauſe that neither lakes nor little rivers ebbe and flow in like manner. *Pytheas* of Maſſiles, writeth, That above Brittaine the tide floweth in height eightie cubites. But the more inward and Mediteranean narrow ſeas are ſhut up within the lands, as in an haven. Howbeit, in ſome places a more ſpacious libertie there is that yeeldeth to the power and commaund of the Moone: for wee have many examples and experiments of them that in a calme ſea without wind and ſaile, by a ſtraunge water onely, have tided from Italie to Vtica in three daies. But theſe tides and quicke motions of the ſea, are found to be about the ſhores, more than in the deepe maine ſea. For even ſo in our bodies the extream
D and utmoſt parts have a greater feeling of the beating of arteries, that is to ſay, the vitall ſpirits. Yet notwithſtanding in many firthes and armes of the ſea, by reaſon of the unlike riſings of the planets in every coaſt, the tides are diverſe, and diſagreeing in time, but not in reaſon and cauſe, as namely in the Syrtes. And yet ſome there bee that have a peculiar nature by themſelves, as the Firth Tauromenitanum, which ebbeth and floweth oftener than twice: and that other in Eubœa, called likewiſe Euripus, which hath ſeven tides to and fro in a day and a night. And the ſame tyde three dayes in a moneth ſtandeth ſtill, namely in the 7, 8, and 9 daies of the moones age. At Gades, the fountaine next unto the chappell of *Hercules*, is encloſed about like a well; the which at ſometimes riſeth and falleth as the Ocean doth: at others againe, it doth both, at contrarie ſeaſons. In the ſame place there is another ſpring that keepeth order and
E time with the motions of the Ocean. On the banke of Betis there is a towne, the wells whereof as the tyde floweth, doe ebbe; and as it ebbeth, doe flow: in the mid times betweene, they ſtirre not. Of the ſame qualitie, there is one pit in the towne Hiſpalis; all the reſt be as others are. And the ſea Pontus evermore floweth and runneth out into Propontis, but the ſea neuer retireth backe againe within Pontus.

Chap. xcviii.

Marvailes of the Sea.

ALl ſeas are purged and ſcoured in the full Moone; and ſome beſides at certaine times. About Meſſala and Nylæ, there is voided upon the ſhoare, certaine dregges and filthineſſe like to
F beaſts dung: whereupon aroſe the fable, That the Sunnes oxen were there kept in ſtall. Hereunto addeth *Ariſtotle* (for I would not omit willingly any thing that I know) that no living creature dieth but in the refluxe and ebbe of the ſea. This is obſerved much in the Ocean of Fraunce, but found onely in man by experience, true.

Chap.

G

Chap. xcix.

What power the Moone hath over things on Earth and in the Sea.

BY which it is truly gueſſed and collected, that not in vaine the planet of the moone is ſuppoſed to be a Spirit: for this is it that ſatisfieth the earth to her content: ſhee it is that in her approch and comming toward, filleth bodies full; and in her retire and going away, emptieth them againe. And hereupon it is, that with her growth, all ſhell-fiſh waxe and encreaſe: and thoſe creatures which have no blood, them moſt of all doe feele her ſpirit. Alſo, the blood in men doth encreaſe or diminiſh with her light more or leſſe: yea, the leaves of trees and the graſſe for fodder (as ſhall be ſaid in convenient place) doe feele the influence of her, which evermore H the ſame, pierceth and entreth effectually into all things.

Chap. c.

The power of the Sunne, and why the ſea is ſalt.

THus by the fervent heat of the Sunne, all moiſture is dried up: for we have been taught, that this Planet is Maſculine, frying and ſucking up the humiditie of all things. Thus the broad and ſpatious ſea hath the taſte of ſalt ſodden into it: or els it is, becauſe when the ſweet and thin ſubſtance thereof is ſucked out from it, which the fiery power of the ſunne moſt eaſily draweth up, all the tarter and more groſſe parts thereof remaineth behind: and hereupon I it is, that the deepe water toward the botome, is ſweeter and leſſe brackiſh than that above in the top. And ſurely, this is a better and truer reaſon of that unpleaſant ſmacke and taſt that it hath, than that the ſea ſhould be a ſweat iſſuing out of the earth continually: or, becauſe over-much of the drie terrene element is mingled in it without any vapour: or elſe becauſe the nature of the earth infecteth the waters, as it were, with ſome ſtrong medicine. We find among rare examples and experiments, that there happened a prodigious token to *Denis* tyrant of Sicilie, when hee was expelled and depoſed from that mightie ſtate of his, and this it was; The ſea water within one day in the haven grew to be freſh and ſweet.

Chap. ci.

K

In like manner of the Moones nature.

ON the contrary, they ſay that the Moone is a planet Fœminine, tender and nightly, diſſolveth humors, draweth the ſame, but carrieth them not away. And this appeareth evidently by this proofe, that the carkaſſes of wild beaſts ſlaine, ſhe putrifieth by her influence, if ſhe ſhine upon them. When men alſo are found aſleepe, the dull nummednes thereby gathered, ſhe draweth up into the head: ſhee thaweth yce, and with a moiſtening breath proceeding from her, enlargeth and openeth all things. Thus you ſee how Natures turne is ſerved and ſupplyed, and is alwaies ſufficient; whiles ſome ſtarres thicken and knit the elements, others againe reſolve the ſame. But as the Sunne is fed by the ſalt ſeas, ſo the Moone is nouriſhed by the freſh L river waters.

Chap. cii.

Where the Sea is deepeſt.

FAbianus ſaith, that the Sea where it is deepeſt, exceedeth not fifteene furlongs. Others againe doe report, that in Pontus the ſea is of an unmeaſurable deapth, over-againſt the nation of the Coraxians, the place they call *Bathea Ponti*, whereof the botome could never be founded.

Chap. ciii.

M

The wonders of waters, Fountaines, and Rivers.

OF all wonders this paſſeth, that certaine freſh waters hard by the ſea, iſſue and ſpring forth as out of pipes: for the nature of the waters alſo ceaſeth not from ſtraunge and miraculous properties. Freſh waters run aloft the ſea, as being no doubt the lighter: and therefore

A fore the ſea water (which naturally is heavier) upholdeth and beareth up whatſoever is brought in. Yea and amongſt freſh waters, ſome there be that flote and glide over others. As for example, in the lake Fucinus, the river that runneth into it: in Larius, Addua; in Verbanus, Ticinus; in Benacus, Mincius; in Sevinus, Ollius; in Lemanus lake, the river Rhodanus. As for this river beyond the Alpes, and the former in Italie; for many a mile as they paſſe, carrie forth their owne waters from thence where they abode as ſtrangers, and none other; and the ſame no larger than they brought in with them. This is reported likewiſe of Orontes, a river in Syria, and of many others. Some rivers againe there be, which upon an hatred to the ſea, run even under the botom thereof; as Arethuſa, a fountaine in Syracuſa: wherein this is obſerved, that whatſoever is caſt into it, commeth up againe at the river Alpheus, which running through Olympia, falleth into
B the ſea ſhore of Peloponneſus. There go under the ground, and ſhew above the ground againe, Lycus in Aſia, Eraſinus in Argolica, Tygris in Meſopotamia. And at Athens, what things ſoever are drowned in the fountaine of Æſculapius, be caſt up againe in Phalericus. Alſo in the Atinate plaines, the river that is buried under the earth, twentie miles off appeareth againe. So doth Timavus in the territorie of Aquileia. In Aſphaltites (a lake in Iurie which engendreth *Bitumen*) nothing will ſinke nor can be drowned, no more than in Arethuſa in the greater Armenia: and the ſame verily, notwithſtanding it be full of Nitre, breedeth and feedeth fiſh. In the Salentines countrey, neere the towne Manduria, there is a lake brim full: lade out of it as much water as you will, it decreaſeth not; ne yet augmenteth, poure in never ſo much to it. In a river of the Ciconians, and in the lake Velinus in the Picene territorie, if wood be throwne in, it is cove-
C red over with a ſtonie barke. Alſo in Surius, a river of Colchis, the like is to be ſeene: inſomuch, as ye ſhall have very often the barke that overgroweth it, as hard as any ſtone. Likewiſe in the river Silarus beyond Surrentum, not twigs onely that are dipped therein, but leaves alſo grow to be ſtones; and yet the water thereof otherwiſe is good and holeſome to be drunke. In the verie paſſage and iſſue of Reatine meere, there groweth a rocke of ſtone bigger and bigger by the daſhing of the water. Moreover, in the red ſea there be olive trees and other ſhrubs, that grow up greene. There be alſo very many ſprings, which have a wonderfull nature, for their boiling heat: yea, and that upon the very mountaines of the Alpes; and in the ſea betweene Italie and Ænaria: as in the Firth Baianus, and the river Liris, and many others. For in divers and ſundrie places yee may draw freſh water out of the ſea, namely about the ylands Chelidoniæ and Aradus:
D yea and in the Ocean about Gades. In the hot waters of the Padovans, there grow green herbs: in thoſe of the Piſanes, there breed frogs: and at Vetulonij in Hetruria, not farre from the ſea, fiſhes alſo are bred. In the territorie Caſinas, there is a river called Scatebra, which is cold, and in Summer time more abounding and fuller of water than in winter: in it, as alſo in Stymphalis of Arcadia, there breed and come foorth of it little water-myce, or ſmall Limpins. In Dodone, the fountaine of *Iupiter* being exceeding chill and cold, ſo as it quencheth and putteth out light torches dipped therein, yet if you hold the ſame neere unto it when they are extinct and put out, it ſetteth them on fire againe. The ſame ſpring at noontide, evermore giveth over to boile and wanteth water, for which cauſe they call it *Anapavomenos*: anon it beginneth to riſe untill it be midnight, and then it hath great abundance: and from that time againe it fainteth by little
E and little. In Illyricum there is a cold Spring, over which, if yee ſpread any clothes, they catch a fire and burne. The fountaine of *Iupiter Hammon* in the day time is cold, all night it is ſeething hote. In the Troglodites countrey there is a fountaine of the Sunne, called the Sweet Spring, about noone it is exceeding cold, anon by little and little it groweth to be warm, but at midnight it paſſeth and is offenſive for heat and bitterneſſe. The head of the Po, at noone in Summer, giveth over, as it were, and intermitteth to boile, and is then ever drie. In the Iſland Tenedus there is a ſpring, which after the Summer Sunneſteed, evermore from the third houre of the night unto the ſixt, doth overflow. And in the iſle Delos, the fountaine Inopus, falleth and riſeth after the ſame ſort that Nilus doth, and together with it. Over againſt the river Timavus, there is a little
F Iſland within the ſea, having hote wels, which ebbe and flow as the tide of the ſea doth, and juſt therewith. In the territorie of the Pitinates beyond Apenninus, the river Novanus at every midſummer time ſwelleth and runneth over the bankes, but in mid-winter is cleane drie. In the Faliſcane countrey, the water of the river Clitumnus maketh the oxen and kine white that drinke of it. And in Bæotia, the river Melas maketh ſheepe blacke: Cephyſſus running out of the ſame lake, cauſeth them to be white: and Penius againe giveth them a black colour: but Xanthus neer

unto

unto Illum, coloureth them reddish; and hereupon the river tooke that name. In the land of G
Pontus there is a river that watereth the plaines of Astace, upon which, those Mares that feed, give blacke milke for the food and sustenance of that nation. In the Reatine territorie there is a fountaine called Neminia: which, according to the springing and issuing forth out of this or that place, signifieth the change in the price of corne and victuals. In the haven of Brindis there is a Well, that yeeldeth unto sailers and sea-faring men, water, which will never corrupt. The water of Linceſtis, called Acidula [*i.* Soure] maketh men drunken no lesse than wine. Semblably, in Paphlagonia, and in the territorie of Cales. Also in the Isle Andros there is a fountaine neere the temple of father *Bacchus*, which upon the Nones of Ianuarie, alwaies runneth with water that tasteth like wine, as *Mulianus* verily beleeveth, who was a man that had beene thrice Consull: The name of the Spring is Dios Tecnosia. H
Neere unto Nonacris in Arcadia, there is the river Styx; differing from the other Styx, neither in smell nor colour: drinke of it once, and it is present death. Also in Berosus (an hill of the Tauri) there bee three fountaines, the water whereof whosoever drinketh, is sure to die of it, remedilesse, and yet without paine. In a countrey of Spaine called Carrinensis, two Springs there bee that runne neere together, the one rejecteth, the other swalloweth up all things. In the same countrey there is another water, which sheweth all fishes within it of a golden colour, but if they be once out of that water, they bee like to other fishes. In the Cannensian territorie, neere to the lake Larius, there is a large and broad well, which every houre continually, swelleth and falleth downe againe. In the Island Sydonia before Lesbos, an hote fountaine there is that runneth onely in the Spring. The Lake Sinnaus in Asia, is infected with I
the wormewood growing about it, and thereof it tasteth. At Colophon in the vault or cave of *Apollo Clarius*, there is a gutter or trench standing full of water: they that drinke of it, shall propheſie and foretel strange things like Oracles, but they live the shorter time for it. Rivers running backward, even our age hath seene, in the latter yeers of Prince *Nero*, as we have related in the acts of his life. Now, that all Springs are colder in Summer than Winter, who knoweth not? as also these wonderous workes of Nature, That brasse and lead in the masse or lumpe sinke downe and are drowned, but if they be driven out into thin plates, they flote and swim aloft: and let the weight be all one, yet some things settle to the bottome, others againe glide above. Moreover, that heavie burdens and lodes be stirred and removed with more ease in water. Likewise, that the stone Thyrreus, bee it never so big, doth swim whole and entire: breake it once into peeces, and K
it sinketh. As also, that bodies newly dead, fall downe to the bottome of the water, but if they bee swollen once, they rise up againe. Over and besides, that emptie vessels are not so easily drawne forth of the water, as those that bee full: that raine water for salt pits is better and more profitable than all other: and that salt cannot be made, unlesse fresh water be mingled withall: that sea-water is longer before it congeale, but sooner made hote and set a seething. That in Winter the sea is hoter, and in Autumne more brackish and salt. And that all seas are made calme and still with oyle: and therefore the divers under the water, doe spurt & sprinckle it abroad with their mouths because it dulceth and allaieth the unpleasant nature thereof, and carrieth a light with it. That no Snowes fall where the sea is deepe. And, whereas all water runneth downeward by nature, yet Springs leape up; even at the very foot of Ætna, which burneth of a light fire so farre forth, as L
that for fiftie, yea, and an hundred miles, the waulming round bals and flakes of fire cast out sand and ashes.

Chap. cliii.

The marvailes of fire and water iointly together, and of Maltha.

NOw let us relate some strange wonders of fire also, which is the fourth element of Nature. But first, out of waters. In a citie of Comagene, named Samosatis, there is a pond, yeelding forth a kind of slimie mud (called Maltha) which will burne cleare. When it meeteth with any thing solide and hard, it sticketh to it like glew: also, if it bee touched, it followeth them that flee from it. By this meanes the townesmen defended their walls, when *Lucullus* gave the assault, and his souldiours fried and burned in their owne armours. Cast water upon it, and yet it will burne. Experience hath taught, That earth onely will quench it.

Chap.

A

Chap. cv.

Of Naphtha.

OF the like nature is Naphtha: for ſo is it called about Babylonia, and in the Auſtacenes countrey in Parthia, and it runneth in manner of liquid Bitumen. Great affinitie there is betweene the fire and it; for fire is readie to leape unto it immediately, if it bee any thing neere it. Thus (they ſay) *Medea* burnt her husbands concubine, by reaſon that her guirland annointed therewith, was caught by the fire, after ſhee approched neere to the altars, with purpoſe to ſacrifice.

B

Chap. cvi.

Of places continually burning.

BVt amongſt the wonderfull mountaines, the hill Ætna burneth alwaies in the nights: and for ſo long continuance of time yeeldeth ſufficient matter to maintaine thoſe fires: in winter it is full of Snow, & covereth the aſhes caſt up, with froſts. Neither in it alone doth Nature tyrranize and ſhew her crueltie, threatning as ſhee doth a generall conſuming of the whole earth by fire. For in Phoſelis the hill Chimæra likewiſe burneth, and that with a continuall fire both night and day: *Cteſias* of Gnidos writeth, That the fire therof is enflamed and ſet a burning
C with water, but quenched with earth. In the ſame Lycia the mountaines Hephæſtij, being once touched and kindled with a flaming torch, do ſo burne out, that the very ſtones of the rivers, yea and the ſand in waters, are on fire withall; and the ſame fire is maintained with raine. They report alſo, that if a man make a furrow with a ſtaffe that is ſet on fire by them, there follow gutters as it were of fire. In the Bactrians countrey, the top of the hill Cophantus burneth every night. Amongſt the Medians alſo, and the Cæſtian nation, the ſame mountains burneth: but principally in the very confines of Perſis. At Suſis verily, in a place called the White Tower, out of fifteene chimnies or tunnels the fire iſſueth, and the greateſt of them, even in the day time carrieth fire. There is a plaine about Babylonia, in manner of a fiſh-poole, which for the quantitie of an acre of ground, burneth likewiſe. In like ſort neere the mountaine Heſperius in Æthyopia, the fields
D in the night time doe glitter and ſhine like ſtarres. The like is to bee ſeene in the territorie of the Megapolitanes, although the field there within-forth bee pleaſant, and not burning the boughes and leaves of the thicke grove above it. And neere unto a warme Spring, the hollow burning furnace called Crater Nymphæi, alwaies portendeth ſome fearful misfortunes to the Apolloniates, the neighbours thereby, as *Theopompus* hath reported. It encreaſeth with ſhowers of raine, and caſteth out Bitumen to be compared with that fountain or water of Styx that is not to be taſted, otherwiſe weaker than all Bitumen beſides. But who would mervell at theſe things? in the mids of the ſea, Hiera one of the Ætolian Iſlands neere to Italie, burned together with the ſea for certaine daies together, during the time of the allies warre, untill a ſolemne embaſſage of the Senat made expiation therefore. But that which burneth with the greateſt fire of all other, is a certaine
E hill of the Æthyopians Theœr Ochema, and ſendeth out moſt parching flames, in the hoteſt ſunne ſhine daies. Lo in how many places with ſundrie fires Nature burneth the earth.

Chap. cvii.

Wonders of fires by themſelves.

MOreover, ſince the nature of this onely element of fire is to be ſo fruitfull, to breed it ſelfe, and to grow infinitely of the leſt ſparkes; what may be thought will be the end of ſo many funeral fires of the earth? What a Nature is that which feedeth the moſt greedie voracitie in the whole world without loſſe of it ſelfe? Put thereto the infinite number of ſtars, the mightie great
F Sunne; moreover the fires in mens bodies, and thoſe that are inbred in ſome ſtones; the attrition alſo of certaine woods one againſt another; yea, and thoſe within clouds, the very originall of lightenings. Surely, it exceedeth al miracles, that any one day ſhould paſſe, and not all the world bee ſet on a light conſuming fire, ſince that the hollow fierie glaſſes alſo ſet oppoſite againſt the Sunne beames, ſooner ſet things a burning than any other fire. What ſhould I ſpeake of innumerable

merable others, which be indeed little, but yet naturally issuing out in great abundance? In the Promontorie Nymphæum, there commeth forth a flaming fire out of a rock, which is set a burning with raine. The like is to be seene also at the waters called Scantiæ. But this verily is but feeble when it passeth and removeth, neither endureth it long in any other matter. An ash there is growing over this fierie fountaine and covering it, which notwithstanding is alwaies greene. In the territorie of Mutina, there riseth up fire also, upon certaine set holidaies unto *Vulcane*. It is found written, That if a cole of fire fall downe upon the arable fields under Aricia, the very soile presently is on fire. In the Sabines territorie, as also in the Sidicines, stones if they be annointed or greased, will be set on a light fire. In a towne of the Salentines called Egnatia, if fire be laid upon a certaine hallowed stone there, it will immediately flame out. Vpon the alter of *Iuno Lacinia* standing as it doth in the open aire, the ashes lie unmoveable and stirre not, blow what stormie winds that will on every side. Over and besides, there be fires seene suddainely to arise, both in waters and also about the bodies of men. *Valerius Antias* reporteth, That the lake Thrasymenus once burned all over: also that *Servius Tullius* in his childhood, as hee lay asleepe, had a light fire shone out of his head: likewise, as *L. Martius* made an Oration in open audience to the armie, after the two *Scipios* were slaine in Spain, and exhorted his souldiors to revenge their death, his head was on a flaming fire in the same sort. More of this argument, and in better order, will we write soone hereafter. For now we exhibite and shew the mervailes of all things huddled and intermingled together. But in the meane while, my mind being passed beyond the interpretation of Nature, hasteneth to lead as it were by the hand the minds also of the readers, throughout the whole world.

Chap. cviii.

The measure of the whole earth in length and breadth.

THis our part of the earth whereof I speake, floting as it were within the Ocean (as hath ben said) lieth out in length most from the East to the West, that is to say, from India to *Hercules* pillars consecrated at Gades: and as mine authour *Artemidorus* thinketh, it containeth 85 hundred, and 78 miles. But according to *Isidorus*, 98 hundred, and 18. *M. Artemidorus* addeth moreover, from Gades within the circuit of the sacred Promontorie, to the cape Artabrum, where the front and head of Spaine beareth out farthest in length 891 miles. This measure runneth two waies. From the river Ganges and the mouth thereof, whereas he discharged himselfe into the East Ocean, through India and Parthyene unto Myriandrum a citie of Syria, situate upon the gulfe or Firth of Isa, 52 hundred and 15 miles. From thence taking the next voiage to the Island Cyprus, to Patara in Lycia, Rhodes and Astypatæa (Islands lying in the Carpathian sea) to Tænarus in Laconia, Lilybæum in Sicilie, Calaris in Sardinia, 34 hundred and 50 miles. Then to Gades 14 hundred and 50 miles. Which measures being put all together, make in the whole from the said sea, 85 hundred 78 miles. The other way, which is more certaine, lieth most open and plaine by land, to wit, from Ganges to the river Euphrates 50 hundred miles and 21. From thence to Mazaca in Cappadocia 244 miles, and so forward through Phrygia and Caria to Ephesus 400 miles, 98. From Ephesus through the Ægean sea to Delos 200 miles. Then to Isthmus 212 miles. From thence partly by land, and partly by the Laconian sea and the gulfe of Corinth, to Patræ in Peloponnesus 202 miles and an halfe: so, to Leucas 86 miles and a halfe, and as much to Corcyra. Then to Acroceraunia 132 miles and an halfe: to Brundusium 86 miles and an halfe: so to Rome 3 hundred miles and 60. Then to the Alpes as far as the village Cincomagus 518 miles. Through Fraunce to the Pyrenæan hils, unto Illiberis 556 miles, to the Ocean and the sea coast of Spaine 332 miles. Then the cut over to Gades seven miles and a halfe. Which measure by *Artemidorus* his account, maketh in all 86 hundred 85 miles. Now the breadth of the earth, from the Meridian or South point, unto the North, is collected to bee lesse almost by the one halfe, namely, 54 hundred and 62 miles. Whereby it appeareth plainely, how much of the one side heat of fire, and on the other side frozen water hath stollen away. For I am not of mind that the earth goeth no farther than so, for then it should not have the forme of a globe; but that the places on either side bee unhabitable, and therefore not found out and discovered. This measure runneth from the shore of the Æthyopian Ocean, which now is habited, unto Meroë, 550 miles. From thence to Alexandria 1200 and 40 miles. So, to Rhodes 583 miles,

A miles; to Gnidus, 84 miles and a halfe; to Cos, 25 miles; to Samus, 100 miles; to Chius, 84 miles; to Mitylene, 65 miles; to Tenedos, 28 miles; to the cape Sigæum, 12 miles and a halfe; to the mouth of Pontus, 312 miles and a halfe; to Carambis the promontorie, 350 miles; to the mouth of Mæotis, 312 miles and an halfe; to the mouth of Tanais, 265 miles: which voyage may be cut shorter (with the vantage of sailing directly) by 89 miles. From the mouth of Tanais, the most curious Authors have set downe no measure. *Artemidorus* was of opinion, that all beyond was unfound and not discovered, confessing that about Tanais the Sarmatian nations doe inhabit, who lie to the North pole. *Isidorus* hath added hereto twelve hundred miles, as farre as to Thule: which is a judgement of his grounded upon bare guesse and conjecture. I take it, that the borders of the Sarmatians are knowne to have no lesse space of ground, than
B this last mentioned commeth unto. And otherwise, how much must it be, that would containe such an innumerable companie of people shifting their seats ever and anon, as they do. Wherby I guesse, that the over-measure of the clime inhabitable, is much greater. For I know certainly, that Germanie hath discovered mightie great Ilands not long since. And thus much of the length and breadth of the earth, which I thought worth the writing. Now the universall compasse and circuit thereof, *Eratosthenes* (a great Clerke verily for all kind of literature, and in this knowledge above all others doubtlesse most cunning, and whome I see of all men approved and allowed) hath set downe to be 252000 stadia. Which measure, by the Romanes account and reckoning, amounteth to 300 hundred and 15 hundred miles. A wonderous bold attempt of his! but yet so exquisitely calculated and contrived by him, that a shame it were not to beleeve
C him. *Hipparchus*, a wonderfull man both for convincing him, and all his other diligence besides, addeth moreover little lesse than 25000 stadia.

Chap. cix.

The Harmonicall measure, and Circumference of the world.

Dionysodorus in another kind would be beleeved: (for I will not beguile you of the greatest example of Grecian vanitie.) This man was a Melian, famous for his skill in Geometrie: hee dyed very aged in his owne countrey: his neere kinswomen (who by right were his
D heires in remainder) solemnized his funerals, and accompanied him to his grave. These women (as they came some fewe dayes after to his sepulchre for to perfourme some solemne obsequies thereto belonging) by report, found in his monument an Epistle of this *Dionysidorus*, written in his own name To them above, that is to say, To the Living: and to this effect, namely, That hee had made a step from his sepulchre to the bottome and centre of the earth, and that it was thithither 42000 stadia. Neither wanted there Geometricians, who made this interpretation, That he signified that this Epistle was sent from the middle centre of the earth, to which place downward from the uppermost aloft, the way was longest; and the same was just halfe the diametre of the round globe: whereupon followed this computation, That they pronounced the circuit to be 255000 stadia. Now the Harmonicall proportion, which forceth this universalitie and nature
E of the world to agree unto it selfe, addeth unto this measure 7000 stadia, and so maketh the earth to be the 96000 part of the whole world.

THE THIRD BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

The Proëme, or Preface.

Hitherto have wee written of the position and wonders of the Earth, Waters, and Starres: also we have treated in generall tearmes, of the proportion and measure of the whole world. Now it followeth, to discourse of the parts thereof: albeit this also be iudged an infinite peece of worke, nor lightly can be handled without some reprehension: and yet in no kind of enterprise pardon is more due; since it is no marvaile at all, if he who is borne a mortall man, knoweth not all things belonging to man. And therefore, I will not follow one Author more than another, but every one as I shall thinke him most true in the description of each part. For as much as this hath been a thing common in manner to them all, namely, to learne or describe the situations of those places most exactly, where themselves were either borne, or which they had discovered and seene: and therefore, neither will I blame nor reproove any man. The bare names of places shall be simply set downe in this my Geographie; and that with as great brevitie as I can: the excellencie, as also the causes and occasions thereof, shall be deferred to their severall and particular treatises: for now the question is as touching the whole earth in generalitie, which mine intent is to represent unto your eyes: and therefore I would have things thus to be taken, as if the names of countries were put downe naked, and void of renowme and fame, and such onely as they were in the beginning, before any actes there done; and as if they had indeed an endument of names, but respective onely to the world and universall nature of all.

Now the whole globe of the earth is divided into three parts, Europe, Asia, and Africa. The beginning we take from the West and the Firth of Gades, even whereas the Atlanticke Ocean breaking in, is spred into the Inland and Mediteranean seas. Make your entrance there, I meane at the Streights of Gibraltar, and then Africke is on the right hand, Europe on the left, and Asia before you iust betweene. The bounds confining these, are the rivers Tanais and Nilus. The mouth of the Ocean at Gades (whereof I spake before) lyeth out in length 15 miles, and stretcheth forth in breadth but five, from a village in Spaine called Mellaria, to the promontorie of Africke, called the White, *as* Turannius Graccula *borne thereby, doth write.* T. Livius *and* Nepos Cornelius *have reported, that the breadth thereof where it is narrowest, is seven miles over, but ten miles where it is broadest. From so small a mouth (a wonder to consider) spreadeth the sea so huge and so vast as wee see; and withall, so exceeding deepe, as the marvaile is no lesse in that regard. For why? in the very mouth thereof, are to be seene many barres and shallow shelves of white sands (so ebbe is the water) to the great terrour of shippes and Sailers passing that way. And therefore many have called those Streights of Gibraltar, The entrie of the Mediteranean sea. Of both sides of this gullet, neere unto it, are two mountaines set as frontiers and rampiers to keepe all in: namely, Abila for Africke, Calpe for Europe, the utmost end of* Hercules *Labours. For which cause, the inhabitants of those parts call them, The two pillars of that God; and doe verily beleeve, that by certaine draines and ditches digged within the Continent, the maine Ocean, before excluded, made way and was let in, to make the Mediteranean seas, where before was firme land: and so by that meanes the very face of the whole earth is cleane altered.*

CHAP.

A

Chap. I.

& Of Europe.

AND first, as touching Europe, the nource of that people which is the conquerour of all nations; and besides, of all lands by many degrees most beautifull: which may for right good cause, have made not the third portion of the earth, but the one halfe (dividing the whole globe of the earth into two parts:) to wit, from the river Tanais unto the Streights of Gades. The Ocean then, at this space above-said, entreth into the
B Atlanticke sea, and with a greedie current drowneth those lands which dread his comming like a tyrant; but where he meeteth with any that are like to resist, those he passeth just by, and with his winding turnes and reaches, he eateth and holloweth the shore continually to gaine ground, making many noukes and creekes every where: but in Europe most of all, wherein foure especiall great gulfes are to be seene.

Of which, the first, from Calpe the utmost promontorie (as is above-said) of Spaine, windeth and turneth with an exceeding great compasse, to Locri, and as farre as the promontorie Brutium. Within it lieth the first land of all others, Spaine; that part I meane, which in regard of us at Rome, is the farther off, and is named also Bœtica. And anon from the Firth Virgitanus, the hither part, otherwise called Tarraconensis, as farre as to the hills Pyrenæi. That farther part
C of larger Spaine, is divided into two provinces in the length thereof: for on the North side of Bœtica, lyeth Lusitania afront, divided from it by the river Ana.

This river beginneth in the territorie Laminitanus of the hither Spaine, one while spreading out it selfe into broad pooles or meeres, other whiles gathering into narrow brookes: or altogither hidden under the ground, and taking pleasure to rise up oftentimes in many places, falleth into the Spanish Atlantick Ocean. But the part named Tarraconensis, lying fast upon Pyrenæus, and shooting along all the side thereof, and withall, stretching out it selfe overthwart and crosse from the Iberian sea to the Gauls Ocean, is separated from Bœtica and Lusitania, by the mountaine Salarius, and the cliffes of the Oretanes, Carpetanes, and Asturians.

Bœtica, so called of the river Bœtis, that cutteth in the mids, out-goeth all the other provin-
D ces for rich furniture, and a certaine plentifull trimnesse and peculiar beautie by it selfe. Therein are held foure solemne Iudiciall great Assizes and Parliaments, according to foure Counties or Shires; to wit, the Gaditane, Cordubian, Astigitane, and Hispalensis. Townes in it are all in number 175; whereof there are Colonies, eight; free Boroughes, eight; townes endued with the auncient franchises of Latium 29: with Freedome, sixe; Confederate, foure; Tributarie paying custome, 120. Of which, those that be worth the naming, and are more currant in the Latine tongue, be these under-written: to wit, On the river Ana side and the Ocean coast, the citie Ossonoba, surnamed also Lusturia. There runne betweene, Luxia and Vrium, two rivers. The hills Ariani: the river Bœtis: the shore Corense, with a winding creeke. Over-against which, ly-
E eth Gades, to be spoken of among the Ilands. The Cape or Head of *Iuno:* the haven Besippo. Townes, Belon, and Mellaria. The Streights or Firth out of the Atlanticke sea. Carteia, called Tertessos by the Greekes; and the mountaine Calpe. Then, within the firme land, the towne Barbesula, with the river. *Item*, the towne Salbula, Suel-Malacha upon the river of our Confederates. Next to these, Menoba with a river: Sexi-firmum, surnamed Iülium: Selaubina, Abdera, and Murgis the frontier towne of Bœtica. All that whole coast, *M. Agrippa* thought to have had their beginning and discent from the Carthaginians. From Ana, there lyeth against the Atlanticke Ocean, the region of the Bastuli and the Turduli.

M. Varro saith, that there entred into all parts of Spaine, the Herians, Persians, Phœnicians, Celtes, and Carthaginians or Africanes: for *Lusus*, the companion of Father *Liber* or *Liba*,
F (which signifieth the franticke furie of those that raged with him) gave the name to Lusitania; and *Pan* was the governour of it all. But those things which are reported of *Hercules* and *Pyrene*, or of *Saturne*, I thinke to be as vaine and fabulous tales as any other. As for Bœtis, in the Tarraconensian province, rising, not as some have said, at the towne Mentesa, but in the chase or forrest Tugrensis, which the river Tader watereth, as it doth the Carthaginian pale also at Ilorcum, shunneth the funerall fire and sepulchre of *Scipio:* and turning into the West, maketh toward

the Atlantick Ocean, adopting the province and giving it his own name, is at first but smal, how- G
beit receiveth many other rivers into it, from which it taketh away both their name & their waters. And first being entred from Ossigitania into Bœtica, running gently with a pleasant channell, hath many townes both on the left hand and the right, seated upon it. The most famous and populous betweene it and the sea coast in the Mediterranean part thereof, are Segeda surnamed Augurina: Iulia, which is also called Fidentia: Virgao, otherwise Alba: Ebura, otherwise Cereolis: Illiberi, which is also Liberini: Ilipua named likewise Laus. Artigi or Iulienses: Vesci the same that Faventia: Singilia, Hegua, Arialdunum, Agla the lesse, Bæbro, Castra Vinaria, Episibrium, Hipponova, Illurco, Osca, Escua, Succubo, Nuditanum, Tucci the old, all which belong to Bastitania, lying toward the sea. But within the Countie or jurisdiction of Corduba, about the very river standeth the towne Ossigi, which is surnamed Laconicum: Illiturgi, called also Forum H
Iulium: Ipasturgi the same that Triumphale, Sitia: and foureteene miles within the countrey, Obulco, which is named Pontificense. And anon (you shall see) Ripepora, a towne of the confederates, Sacili, Martialum, Onoba. And on the right hand Corduba, surnamed Colonia Patritia: and then beginneth Bœtis to be navigable, and not before. As you go lower, you shal find towns Carbulo, Decuma, the river Singulis, falling into the same side of Bœtis. The towns of the countie Hispalensis be these, Celtica, Axatiara, Arruci, Menoba, Ilipa surnamed Italica. And on the left hand, Hispalis a Colonie, surnamed likewise Romulensis. But right forward opposite unto it, the town Osset, which hath a name besides, Iulia Constantia: Vergentum, which also is the same that Iulij Genitor, Hippo Caurasiarum, the river Menoba, which also entreth into Bœtis on the right side. But within the washes and downes of Bœtis, there is the town Nebrissa surnamed Ve- I
neria and Colobona: also Colonies, namely, Asta, which is called Regia. And in the mid-land part, Asido, which is the same that Cæsariana. The river Singulus breaking into Bœtis in that order as I have said, runneth hard by the Colonie Astigitania, surnamed also Augusta Firma, and so forward it is navigable. The rest of the Colonies belonging to this Countie, are free and enjoy immunitie of Tribute: namely, Tucci, which is surnamed Augusta Gemella: Itucci, the same that Virtus Iulia, Attubi all one with Claretas Iulia [*i.* excellencie of *Iulius*.] Vrso, which is Genua Vrbanorum: and among these, Munda, which together with *Pompeies* son, was taken. Free townes, Astigi the old, and Ostippo. Tributarie, Callet, Calucula, Castra Gemina, Ilipula the lesse, Merucra, Sacrana, Obulcula, Oningis. As a man commeth from the coast, neere to the river Menoba, which also wil beare a ship, there dwell not farre off the Alontigicili, and Alostigi. But all that K
region which without the forenamed, reacheth from Bœtis to the river Ana, is called Beturia: devided into two parts, and as many sorts of people: to wit, the Celtici, who meet with Lusitania, and are within the devision or countie Hispalensis: and the Turduli, who inhabite fast upon Lusitania and Tarraconensis: and they owe service to the Countie-Court of Corduba. As for the Celtici, manifest it is, That they came from the Celtiberians out of Lusitania, as appeareth by their religion, tongue, and names of townes, which in Bœtica are distinguished by their additions or surnames, to wit, Seria which is called Fama Iulia: Vcultuniacum, which now is Curiga: Laconimurgi, Constantia Iulia, Terresibus is now Fortunales, and Callensibus, Emanici. Besides all these, in Celtica Acinippo, Arunda, Arunci, Turobrica, Lastigi, Alpesa, Sæpona, Serippo. The other Beturia, which we said contained the Turduli, and belonged to the Countie of Cor- L
duba, hath townes of no base account, Arsa, Mellaria and Mirobrica: and regions or quarters, Ofrutigi, and Sisapone. Within the Countie of Gades, there is of Romane cittizens a towne called Regina: of Latines there are Læpia, Vlia, Carisa surnamed Aurelia, Vrgia which is likewise named Castrum Iulium: also, Cæsaris Salutarienses. But Tributaries there bee these, Besaro, Besippo, Berbesula, Lacippo, Besippo, Callet, Cappagum, Oleastro, Itucci, Brana, Lacibi, Saguntia, Andorisippo. The whole length of it, *M. Agrippa* hath set downe 463 miles, and the breadth 257. But for that the bounds reached forward as farre as to Carthage, which cause breedeth oftentimes errours in the taking of the measures, whiles in one place the limits of the provinces were changed, and in another the pases in journying were either more or lesse; also, considering the seas in so long continuance of time have encroched here upon the land, and the bankes a- M
gaine gotten there of the sea, and beare farther in; also, for that the reaches of the rivers have either turned crooked or gone streight & direct; over and besides, for that some have begun to take their measure from this place, others from that, and gone divers waies: it is by these means come to passe, that no twain accord together in one song, as touching their measure and Geographie.

CHAP.

A

Chap. II.

The length and breadth of Bætica.

THe length of Bœtica at this day from the bound of the towne Castulo unto Gades, is 475 miles: and from Murgi the maritine coast or lands end, more by 22 miles. The bredth from the edge or border of Carteia, is 224 miles. And verily, who would beleeve, that *Agrippa* (a man so diligent, and in this worke principally, so curious) did erre, when he purposed to set out a map of the whole world openly to be seene of the whole cittie, and namely, when *Augustus Cæsar* of happie memorie, joined with him? For hee it was that finished the porch or gallerie begun
B by *Agrippaes* sister, according to his will appointment and direction, which contained the said pourtraict.

Chap. III.

The hither or higher Spaine.

THe old forme of the hither Spaine is somewhat changed, like as of many other provinces: considering that *Pompey* the great in his triumphant trophees which hee erected in Pyrenæus, testifieth, That 846 townes betweene the Alpes and the marches of the farther or lower Spain, were subdued by him & brought to obedience. Now, is the whole province devided
C into seven Counties, the Carthaginian, the Tarraconian, Cæsar Augustani, Clunienſis, Asturia, Lucensis, & Bracarum. There are besides Islands, setting aside which, without once naming them, and excepting the citties that are annexed to others, the bare province containeth 294 townes. In which, Colonies there be twelve, townes of Romane cittizens thirteene, of old Latines seventeene, of allies within the league, one; tributarie, a hundred thirtie sixe. The first in the very frontiers thereof, be the Bastulians: behind them in such order as shall bee said: namely, those inlanders that inhabite within-forth, the Mentesanes, Oretanes, and the Carpetanes upon the river Tagus. Neere to them, the Vaccæans, Vectones, Celtiberians, and Arrebaci. The towns next to the marches, Vrci, and Barea laid to Bœtica: the countrey Mauritania, then Deitania: after that, Contestania, and new Carthage, a Colonie. From the Promontorie whereof called *Saturnes*
D cape, the cut over the sea to Cæsaria a cittie in Mauritania, is of 187 miles. In the residue of that coast is the river Tader: the free Colonie Illici, of which, a firth or arme of the sea tooke the name Illicitanus. To it owe service and are annexed the Icositanes. Soone after, Lucentum a town of the Latines. Dranium a tributarie, the river Sucro, which was sometime the frontier towne of Contestania. The region Edetania, which retireth inward to the Celtiberians, having a goodly pleasant poole bordering along the front of it. Valentia, a Colonie lying three miles from the sea. The river Turium: and just as farre from the sea, Saguntum, a towne of Romane cittizens, renowned for their fidelitie. The river Idubeda, and the region of the Ilergaones. The river Hebre, yeelding such riches of trafficke and commerce, by reason that it is navigable: which beginneth in the Cantabrians countrey, not farre from the towne Inliobrica, and holdeth on his course 430
E miles: and for 260 of them, even from the towne Varia, carrieth vessels of merchandise, in regard of which river, the Greekes named all Spaine Iberia. The region Cossetania, the river Subi, the Colonie Tarraco, built by the *Scipioes*, like as Carthage by the Affricanes. The countrey of the Illergetes, the towne Subur, the river Rubricatum, and from thence the Lacetanes and Indigetes. After them in this order following: within-forth at the foot of Pyrenæus, the Ausetanes, Itanes, and Lacetanes: and along Pyrenæus the Cerretanes, and then the Vascones. In the edge or marches thereof, the Colonie Barcino, surnamed Faventia. Townes of Romane cittizens, Bætulo, Illuro, the river Larnum, Blandæ: the river Alba, Emporiæ: two there be of these, to wit, of the old inhabitants, and of the Greekes, who were the off-spring descended from the Phocæans.
F The river Tichus. From whence to Pyrenæa Venus, on the other side of the Promontorie, are fortie miles. Now besides the forenamed, shall bee related the principall places of marke as they lie in every Countie. At Tarracon there plead in court foure and fortie States. The most famous and of greatest name among them, be of Romane cittizens the Dertusanes, and Bisgargitanes: of Latines, the Ausetanes and Cerretanes surnamed Iulianes: they also who are named Augustanes, the Sedetanes, Gerundenses, Gessarians, Tearians, the same that Iulienses. Of Tribu-

taries, the Aquicaldenſes, Onenſes, and Bætulonenſes. Cæſar Auguſta, a free Colonie, upon G
which the river Iberus floweth: where the towne before was called Salduba: theſe are of the regi-
on Sedetania, and receiveth 52 States: and among theſe, of Romane citizens the Bellitanes and
Celſenſes. And out of the Colonie, the Calaguritanes ſurnamed alſo Naſcici. The Ilerdians of
the Surdaons nation, neer unto whom runneth the river Sicoris. The Oſcians of the region Veſ-
cetania, and the Turiaſonenſes. Of old Latins, the Caſcantenſes, Erganicenſes, Gracchuritanes,
Leonicenſes, Oſſigerdenſes. Of confederates within the league, the Tarragenſes. Tributaries be-
ſides, the Arcobricenſes, Andologenſes, Arocelitanes, Burſaonenſes, Calaguritanes ſurnamed
Fibularenſes, Complutenſes, Carenſes, Cincenſes, Cortonenſes, Dammanitanes, Larrenſes, Itu-
riſenſes, Iſpalenſes, Ilumberitanes, Lacetanes, Vibienſes, Pompelonenſes and Segienſes. There
reſort to Carthage for law 62 ſeverall States, beſides the Iſlanders. Out of the Colonie Accitana, H
the Gemellenſes, alſo Libiſoſona ſurnamed Foroauguſtana: which two are endued with the fran-
chiſes of Italie: out of the Colonie Salarienſis, the Oppidanes of old Latium, Caſtulonenſes,
whom *Cæſar* calleth *Vænales*. The Setabitanes, who are alſo Auguſtanes, and the Valerrienſes.
But of the Tributaries, of greateſt name bee the Babanenſes, the Baſcianes, the Conſaburenſes,
Dianenſes, Egeleſtanes, Ilorcitani, Laminitani, Menteſani, the ſame that Oritani; and Menteſani
who otherwiſe are Baſtuli: Oretanes who alſo are called Germani, the cheefe of the Celtiberians,
the Segobrigenſes, and the Toletanes of Carpetania, dwelling upon the river Tagus. Next to
them the Viacienſes and Virgilienſes. To the aſſiſes or law court Clunienſis, the Varduli bring
foureteene nations; of which I liſt to name none but the Albanenſes: but the Turmodigi foure,
among whom are the Segiſamonenſes, Sagiſamejulienſes. To the ſame aſſiſes, the Carietes and I
the Vennenſes doe goe out of five cities, of which the Velienſes are. Thither repaire the Pelen-
dones, with four States of the Celtiberians, of whom the Numantines were famous: like as in the
eighteene citties of the Vaccæans, the Intercatienſes, Pallantini, Lacobricenſes, and Caucenſes:
for in the foure States of the Cantabrici, onely Iuliobrica is named. In the tenne States of the
Autrigones, Tritium and Vironeſca. To the Arevaci the river Areva gave name. Of them there
be ſeven townes, to wit, Saguntia and Vxama, which names be often uſed in other places: beſides
Segovia and Nova Auguſta, Termes, and Clunia it ſelfe the very utmoſt bound of Celtiberia. All
the reſt lie toward the Ocean, & of the abovenamed the Verduli together with the Cantabri. To
theſe there are joined twelve nations of the Aſtures, devided into the Auguſtanes & Tranſmon-
tanes, having a ſtately cittie Aſturica. Among theſe are reckoned, Giguri, Peſici, Lancienſes and K
Zoclæ. The number of the whole multitude ariſeth to 240000 pols of free men, beſides ſlaves. The
Countie or juriſdiction Lucenſis, compriſeth ſixteene townes (beſides the Celtikes and Lebuni-
ans) of baſe condition, and having barbarous names; howbeit, of freemen to the number well
neere of 166000. In like manner 24 citties, which affoord 275000 pols, ow ſervice to the court of
Bracarum: of whom beſides the Bracarians themſelves, the Vibali, Celerini, Gallæci, Æqueſilici
and Quinquerni, may be named without diſdaine and contempt. The length of the hither Spain,
from Pyrenæus to the bound of Caſtulo is 607 miles, and the coaſt therof ſomewhat more. The
breadth from Tarracon to the ſhore of Alarſon, 307 miles. And from the foot of Pyrenæus,
where, betweene two ſeas it is pointed with the ſtreights, and ſo opening it ſelfe by little and little
from thence, untill it come to touch the farther Spain, it is as much, and addeth ſomewhat more L
to the breadth. All Spaine throughout in manner is full of mettall mines, as lead, yron, braſſe, ſil-
ver, and gold: the hither part thereof aboundeth beſides with ſtone glaſſes, or glaſſe ſtones: and
Bætica particularly with vermilion. There bee alſo there quarries of marble. Vnto all Spaine
throughout, *Veſpaſianus Auguſtus* the Emperour, toſſed with the tempeſts and troubles of the
Commonweale, graunted the franchiſes of Latium. The mountaines Pyrenæi do confine Spaine
and Fraunce one from the other, lying out with their promontories into two contrarie ſeas.

Chap. iiii.

☞ *The province Narbonenſis.* M

THat part of Gallia which is waſhed and beaten upon with the Mediteranean ſea, is called
the province Narbonenſis, named afore-time Braccata, divided from Italie by the river
Varus and the Alpes; moſt friendly mountaines to the Romane Empire: and from the
other parts of Gaule, on the north ſide, by the hils Gebenna and Iura. For tillage of the ground,

for

A for reputation of men, regard of civilitie and manners, and for wealth, worthy to be set behind no other provinces whatsoever: and in one word, to be counted Italie more truly than a province. In the edge or marches thereof, lyeth the countrey of the Sardaons; and within, the region of the Consuarones. The rivers be Tecum and Vernodubrum: the townes, Illiberis (a poore relique and simple shew of a citie to that it was in old time) and Ruscio, inhabited by the Latines. The river Atax springing out of Pyrenæus, runneth through the lake Rubrensis and floteth over it. *Narbo Martius* a Colonie inhabited by the Legionaries of the tenth legion, twelve miles distant from the sea. Rivers, Araris and Liria. Townes in the other parts, scattering here and there by reason of pooles and meeres lying before them: namely, Agatha, in times past belonging to the Massilians, and the region of Volscæ Tectosages. Also, where Rhoda of the Rhodians was,
B whereof Rhodanus tooke name, the most fruitfull river by farre of all Gallia, running swiftly out of the Alpes through the lake Lemanus, and carrying with it the dead and slow river Araris; and Isara running as fast as it selfe, together with Druentia. The two small mouthes or passages thereof are called Lybica: of which, the one is Hispanienſum, the other Metapinum: a third there is besides, and the same most wide and large, named Massalioticum. There be that write, how the towne Heraclea likewise stood upon the mouth of Rhodanus. Beyond the ditch out of Rhodanus, which was the work of *C. Marius* and bearing his name, there was a notable poole or meere. Moreover, the towne Astromela, and the maritime tract of the Avætici: and above it, the stonie plaines, carrying the memoriall of *Hercules* his battailes. The region of the Anatilians, and within-forth, of the Desuviates and Cavians. Againe, from the sea; Tricorum, and inward, the
C region of the Tricollivocantians, Segovellaunes, and anon of the Allobroges: but in the marches, Massilia of Greeke Phocæans: within the league. The promontorie Citharista, Zaopartus, and the region of the Camatullici. After them, the Suelteri; and above them, Verucines. But in the coast along still, Athenopolis under the Massilians, Forum Iulij a Colonie of the ninth legion souldiers, which also is called Parensis and Classica: in it is the river Argenteus: the region of the Oxubij and Ligaunians; above whome, are the Suetri, Quariates, and Adunicates: but in the borders, a Latine towne Antipolis. The region of the Deciates, the river Varus gushing out of an hill of the Alpes, called Acema. In the middle part thereof the Colonies, Arelate of the sixth legion souldiers, Bliteræ of the seventh, and Arausia of those belonging to the
D second. In the territorie of the Cavians, Valentia and Vienna, of the Allobroges. Latine towns, Aquæ Sextiæ of the Salyans, and Avenio of the Cavians, Apta Iulia of the Vulgientians, Alebecerriorum of the Apollinares, Alba of the Heluans, Angusta of the Tricostines; Anatilia, Acria, Bormanni, Comacina, Cabellio, Carcasum, of the Volscane Tectosages: Cessero, Carpentoracte, of the Menines: the Cenicenses, Cambolecti, who are named besides Atlantici, Forom Voconij, Glanum, Livij, Lutevani, who are the same that Foro-neronienses. Nemausum of the Arecomici, Piscenæ, Ruteni, Sanugenses, and Tolosani, of the Tectosages. The neighbour borderers upon Aquitane, Tasco-dumetari, Canonienses, Vmbranici. Two capitall towns of the confederate State of the Vocontians, Vasco and Lucus Augusti. But base townes of no importance nineteene, as 24 more annexed to the Nemausiens, and under their Seignorie. To
E this charter or Instrument enrolled, *Galba* the Emperour added of the Alpine inhabitants, the Avantici and Eproduntij; whose towne is named Dima. *Agrippa* saith, that the length of this province Narbonensis, is 270 miles, and the breadth 248.

Chap. V.

Italie, Tiberis, Rome, Campania.

NExt to them is Italie, and the first of all, the Ligurians: then Hetruria, Vmbria, Latium, where be the mouthes of Tiberis and Rome the head citty of the whole earth 16 myles distant from the sea. After it, is the maritime countrey of the Volscians, and Campania: then Picentium, Lucanum, and Brutium, the furthest point in the South, unto which from the
F crooked mountaines of the Alpes, like in manner to the moone croissant, with some parts higher, other lower, Italie shooteth out in length to the seas: from it, is the sea coast of Græcia, and soone after, the Salentines, Pediculi, Apuli, Peligni, Ferentani, Marrucini, Vestines, Sabines, Picentes, Gaules, Vmbrians, Thuscans, Venetians, Carnians, Iapides, Istrians, and Liburnians.

Neither

Neither am I ignorant, that it might be thought and that juſtly, a point of an unthankfull G
mind and idle withall, if briefly in this ſort, and as it were by the way, that land ſhould be ſpoken of which is the nource of all lands. Shee alſo is the mother, choſen by the powerfull grace of the gods, to make even heaven it ſelfe more glorious; to gather into one the ſcattered empires, to ſoften and make civile the rude faſhions of other countries; and whereas the languages of ſo many nations were repugnant, wild, and ſavage, to draw them together by commerce of ſpeech, conference, and parley; to endue man with humanitie; and briefly, that of all nations in the world, there ſhould be one onely countrey. But here, what ſhould I doe? So noble are all the places that a man ſhall come unto, ſo excellent is every thing, and each State ſo famous and renowmed, that I am fully poſſeſſed with them all, and to ſeeke what to ſay. Rome citie, the onely faire face therein, worthy to ſtand upon ſo ſtately a necke and paire of ſhoulders, what worke H
would it aske thinke you, to be ſet out as it ought? The very tract of Campaine by it ſelfe, ſo pleaſant and goodly, ſo rich and happy, in what ſort ſhould it be deſcribed? So as it is plaine and
5 evident, that in this one place there is the workmanſhip of Nature wherein ſhe joyeth and taketh delight. Now beſides all this, the whole temperature of the aire, is evermore ſo vitall, healthie, and holeſome, the fields ſo fertile, the hills ſo open to the ſunne, the forreſts ſo harmeleſſe, the groves ſo coole and ſhadie, the woods of all ſorts ſo bounteous and fruitfull, the mountaines yeelding ſo many breathing blaſts of wind; the corn, the vines, the olives ſo plentifull; the ſheep ſo enriched with fleeces of the beſt wooll, the bulls and oxen ſo fat and well fed in the necke; ſo many lakes and pooles, ſuch ſtore of rivers and ſprings watering it throughout; ſo many ſeas and havens, that it is the very boſome lying open and ready to receive the commerce of all lands I
from all parts: and yet it ſelfe full willingly deſireth to lye farre into the ſea to helpe all mankind. Neither doe I ſpeake now of the natures, wits, and faſhions of the men; ne yet of the nations abroad ſubdued with their eloquent tongue, and ſtrong hand. Even the Greekes (a nation of all other moſt given to praiſe themſelves beyond all meaſure) have given their judgement of her, in that they called ſome ſmall part thereof, Great Greece. But in good faith, that which wee did in the mention of the heaven, namely, to touch ſome knowne Planets and a few ſtarres, the ſame muſt we likewiſe doe in this one part: only I would pray the readers to remember and carry this away, That I haſten to rehearſe every particular thing through the whole round globe of the earth.

Well then, to begin, Italy is faſhioned like for all the world to an Oke leafe, and much larger K
in length than breadth: to the left ſide bending with the top, and ending in the figure and faſhion of an Amazonian ſhield: and where that tract of Calabria lyeth which is called Cocinthos, it putteth foorth into thoſe two promontories or capes like the moones two hornes; the one, Leucopetra on the right hand; the other, Lacinium on the left. In length it reacheth from the foot of the Alpes, through Oſtia or Prætoria Auguſta, directly to the citie of Rome, and ſo forward to Capua, with a direct courſe leading to Rhegium a towne ſituate upon the ſhoulder thereof: from which beginneth the bending as it were of the necke, and beareth 1000 and 20 myles. And this meaſure would growe to be farre more, if it went as farre as Lacinium, but that ſuch an obliquitie and winding might ſeeme to decline and beare out too much unto one ſide. The breadth thereof is diverſly taken, namely, 410 miles betweene the two ſeas, the higher and L
the lower, and the rivers Varus and Arſia. The middes of which breadth, (and that is much about the citie of Rome) from the mouth of the river Aternus running into the Adriaticke ſea, unto the mouthes of Tiberis, 136 miles, and ſomewhat leſſe: from Novum Caſtrum by the Adriaticke ſea, to Alſium and ſo to the Tuſcane ſea: and in no place exceedeth it in breadth 300 miles. But the full compaſſe of the whole from Varus to Arſia, is 20049 miles. Diſtant it is by ſea from the lands round about, to wit, from Iſtria and Liburnia in ſome places 100 miles; from Epirus and Illyricum 50 miles; from Africke leſſe than 200, as *Varro* affirmeth; from Sardinia, an hundred and 20 miles; from Sicilie, a mile and a halfe: from Corcyra leſſe than 70; from Iſſa, fiftie. It goeth along the ſeas, to the Meridionall line verily of the heaven; but if a man examine it exactly indeed, it lyeth betweene the Sunne riſing in mid-winter, and the point of the M
Noone-ſteed.

Now will we deſcribe the compaſſe and circuit thereof, and recken the cities: wherein, I muſt needs proteſt by way of Preface, that I will follow for mine Authour *Auguſtus* the Emperour of famous memorie, and the deſcription by him made of all Italie, which be devided into 11

Regions

A Regions or Cantons. As for the maritime townes, I will ſet them downe in that order as they ſtand, according to their vicinitie one to another. But for as much as in ſo running a ſpeech and haſtie pen, the reſt cannot poſſibly be ſo orderly deſcribed: therefore in the inland part therof, I will follow him as he hath digeſted them by the letters of the Alphabet: but mentioning withall, the colonies or chiefe cities by name, which he hath delivered in that number. Neither is it an eaſie matter to know throughly their poſitions and foundations, conſidering the Ingaune Ligurians (to ſay nothing of all the reſt) were endowed with lands thirtie times, and chaunged their ſeates. To begin with the river Varus therefore, there offereth to our eye, firſt the towne Nicæa, built by the Maſſilians: the river Po; the Alpes; the people within the Alpes of many names, but of moſt marke Capillati, with long haire: the towne Vediantiorum, the cittie Ce-
B melion, or, a towne belonging to the State of the Vediantians, called Cemelion: the port of *Hercules* and *Monœcus*, and ſo the Ligurian coaſt. Of the Ligurians, the moſt renowmed beyond the Alpes, are the Sallij, Deceates, and Oxubij: on this ſide, the Veneni, and deſcended from the Caturiges, the Vagienni, Statyelli, Vibelli, Magelli, Euburiates, Caſmonates, Veliates, and thoſe, whoſe townes wee will declare in the next coaſt. The river Rutuba, the towne Albium Intemelium, the river Merula, the towne Albium Ingaunum, the port or haven towne Vadum Sabatium, the river Porcifera, the towne Genua, the river Feritor, the Port Delphini, Tigulia: within, Segeſta Tiguliorum: the river Macra which limiteth Liguria. Now on the backe ſide behind all theſe townes abovenamed, is Apenine, the higheſt mountain
C of all Italie, reaching from the Alpes with a continuall ridge of hils, to the ſtreights of Sicilie. From the other ſide thereof to Padus, the richeſt river of all Italie, all the countrey ſhineth with goodly faire townes, to wit, Liberna, Derrona a Colonie, Iria, Barderates, Induſtria, Pollentia, Carrea, which alſo is named Polentia, Foro Fulvij the ſame that Valentinum, Auguſta of the Vagienni: Alba Pompeia, Aſta, and Aquæ Statyellorum. And this is the ninth Canton, after the Geographie of *Auguſtus*. This coaſt or tract of Liguria containeth betweene the rivers Varus and Macra 211 miles. To it is adjoined the ſeventh, wherein is Hetruria from the river Macra: and it oftentimes chaunged the name. In old time the Pelaſgians chaſed the Vmbrians from thence: and by them the Lydians did the like, of whoſe king, named they were Tyrrheni: but ſoone after, of their ceremonies in ſacrificing, in the Greekes language *Thuſci*. The firſt towne of Hetru-
D ria, is Luna, famous for the haven; then the Colonie Luca, lying from the ſea: and neerer unto it, is Piſæ, betweene the river Auſer and Arnus, which tooke the beginning from *Pelops* and the Piſians, or Atintanians a Greeke nation. Vada Volaterranea, the river Cecinna. Populonium of the Tuſcanes in times paſt, ſituate onely upon this coaſt. After theſe, the rivers Prille, and anone after Vmbro, navigable, and of it tooke name: ſo forward the tract of Vmbria, and the port towne Telamon: Coſſa Volſcientium, a Colonie planted there by the people of Rome, Graviſcæ, Caſtrum Novum, Pyrgi, the river Cæretanus, and Cære it ſelfe, ſtanding foure miles within, called Agylla by the Pelaſgians who built it: Alſium and Frugenæ. The river Tiberis, diſtant from Macra 284 miles. Within-forth are theſe Colonies, Faliſca deſcended from Argi (as *Cato* ſaith) and for diſtinction is called Hetruſcorum. Lucus Feroniæ, Ruſſellana, Senenſis and Sutriva. As for the
E reſt, theſe they be, Aretini the old, Aretini Fidentes, Aretini Iulienſes, Amitinenſes, Aquenſes ſurnamed Taurini: Vlerani, Cortonenſes, Capenates, Cluſines the old, Cluſines the new, Fluentini, faſt upon the river Arnus that runneth before them, Feſulæ, Ferentinum, Feſcennia, Hortanum, Herbanum, Nepet, Novempagi [*i.* the nine villages] the Shire-wiek called Prefecture Claudia, or Foro Clodij: Piſtorucin, Peruſia, Suanenſes, Saturnini, who beforetime were called Aurinini, Sudertani, Statones, Tarquinienſes, Tuſcanienſes, Vetulonienſes, Veientani, Veſentini, Volaterrani ſurnamed Hetruſci and Volſinienſes. In the ſame part lie the territories Cruſtuminus and Cæletranus, bearing the names of the old townes. Tiberis, beforenamed Tybris, and before that Albula, from the middeſt well neere of Apennine, as it lieth in length, runneth along the marches of the Aretines: ſmall and ſhallow at the firſt, and not able to beare a veſſell without being gathered together, as it were, by fiſhpooles into an head, and ſo let goe at ſluces: as Tinia and
F Glanis which run into him, the which are at the ſame paſſe, and require nine daies for collection of waters, and ſo are kept in for running out: in caſe they have no helpe of raine at all. But Tiberis by reaſon of the rough, ſtonie, and rugged channell, for all that deviſe, holdeth on no long courſe together, but onely for troughes, to ſpeake more truly, than boats: and thus it doth for a hundred and fiftie miles, not farre from Tifernum, Peruſia and Otriculum: dividing as it paſſeth

Hetruria

Hetruria ſtom the Vmbrians and Sabines: and ſo forth untill anon, within thirteene miles of the cittie [Rome] it parteth the Veientian countrey from the Cruſtumine: and ſoone after the Fidenate and Latine territories from the Labicane. But beſides Tinia and Glanis, hee is augmented with two and fortie rivers, and eſpecially with Nar and Anio: which river being alſo it ſelfe navigable, encloſeth Latium behind: and nevertheleſſe ſo many waters and fountaines are brought thereby into the cittie, whereby it is able to receive any ſhips, bee they never ſo great, from the Italian ſea; and is the kindeſt marchant to conveigh all commodities growing and ariſing in any place of the whole world: it is the onely river of all others, to ſpeake of, and more villages ſtand upon it and ſee it, than all other rivers in what lands ſoever. No river hath leſſe libertie than it, as having the ſides thereof encloſed on both hands, and yet hee is no quarreller, nor much harme doth he, albeit he hath many and thoſe ſuddaine ſwellings, and in no place more than in the very cittie of Rome doe his waters overflow: yet is he taken to be a prophet rather, and a Counſellor to give warning, yea, and in ſwelling, more religious and breeding ſcruple to ſpeake a truth, than otherwiſe cruell and doing any great harme. Old Latium from Tiberis to Circeios was obſerved to be in length fiftie miles. So ſmall roots at the firſt tooke this Empire. The inhabitants thereof changed often, and held it, ſome one time, ſome another; to wit, the Aborigenes, Pelaſgi, Arcadians, Sicilians, Auruncanes, and Rutilians. And beyond Circeios, the Volſcians, Oſſians, Auſonians, from whence the name of Latium did reach ſoone after, as farre as to the river Liris. In the beginning of it ſtandeth Oſtia, a Colonie, brought thether and planted by a Roman king: the towne Laurentum, the grove of *Iupiter Indiges*, the river Numicius, and Ardea, built by *Danaë* the mother of *Perſeus*. Then the Colonie Antium, ſometimes Aphrodiſium: Aſtura, the river and the Iſland. The river Nymphæus, Claſtra Romana Circeij, in times paſt an Iſland, yea, and that verily environned with a mightie ſea (if we beleeve *Homer*) but now with a plaine. A wonder it is what we are able to deliver, concerning this thing, to the knowledge of men. *Theophraſtus*, who of ſtrangers was the firſt that writ (any thing diligently) ſomewhat of the Romans (for *Theopompus*, before whom no man made mention at all, ſaid onely, That the citie was woon by the Gaules: and *Clitarchus* next after him, ſpake of nothing els but an embaſſage ſent unto *Alexander*) this *Theophraſtus*, I ſay, upon a better ground and more certainetie now than bare heareſay, hath ſet downe the meaſure of the Iſland Circeij to bee eightie Stadia; in that booke which he wrote to *Nicodorus* the cheefe Magiſtrate of the Athenians, who lived in the 460 yeer after the foundation of Rome cittie. Whatſoever land therefore above tenne miles compaſſe lieth neere about it, hath beene annexed to the Iſland. But after that, a yeere, another ſtrange and wonderfull thing fell out in Italie: for not farre from Circeij, there is a meere called Pomptina, which *Mutianus*, a man who had beene thrice Conſull, reporteth to have beene a place wherin ſtood 23 citties. Then there is the river Vfens, upon which ſtandeth the towne Tarracina, called in the Volſcian tongue Anxur, and where ſometime was the citie Amycle, deſtroied by ſerpents. After it is there the place of a cave or peake, the lake Fundanus, and the haven Cajeta. The town Formiæ named alſo Hormiæ, the auncient ſeat (as men thought) of the Læſtrigones. Beyond it was the towne Pyræ, the Colonie Minturnæ, devided aſunder by the river Liris, called Clanius. The utmoſt frontier towne in this part of Latium laid to the other, is Sinueſſa, which as ſome have ſaid, was wont to be called Sinope. Thence commeth to ſhew it ſelfe that pleaſant and plentifull countrey Campania. From this vale begin the hils full of vineyards, and famous for drunkenneſſe, proceeding of ſtrong wine and the liquor of the grape, commended ſo highly in all countries: and (as they were wont to ſay in old time) there was the exceeding ſtrife betweene father *Liber* and dame *Ceres*. From hence the Setine and Cecubine countries ſpread forth: and to them joine the Falerne and Calene. Then ariſe the mountaines, Maſſici, Gaurani and Surrentine. There the Laborium Champain fields lie along under their feet, and the good Wheat harveſt to make fine furmentie for dainties at the table. The ſea-coaſts here are watered with hote fountaines, and among other commodities throughout all the ſea, they beare the name for the rich purple ſhell fiſh, and other excellent fiſhes. In no place is there better or more kind oyle preſſed out of the Olive. And in this delightſome pleaſure of mankind, the Oſcians, Grecians, Vmbrians, Tuſcanes, and Campanes have ſtriven who could yeeld beſt. In the skirt and edge thereof, is the river Savo, Vulturnum the towne and river both, Liternum, and Cumo inhabited by Chalcidians, Miſenum, the haven Bajæ, Baüli, the pooles Lucrinus and Avernus, neere unto which was ſometime the towne Cimmerium. Then Puteoli, called alſo the Colonie Dicæarchia:

G H I K L M

After

A After that, the plaines Phlegræi, and the meere or fenne Acheruſia neere to Cumes. And upon the very ſtrond by the ſea ſide Naples, a citie alſo of the Chalcidians, the ſame that Parthenope, ſo called of the tombe of a Sirene or Meeremaid: Herculanium, Pompeij: and where not farre off the mountaine Veſuvius overlooketh, and the river Sernus runneth under the territorie of Nuceria, and within nine miles of the ſea, Nuceria it ſelfe. Surrentum with the promontorie of *Minerva*, the ſeat ſomtime of the Meeremaids. From the cape Circeij lieth the ſea open for ſaile 78 mile. This is counted the firſt region of Italie, next to Tibris, according to the deſcription of *Auguſtus*. Within it are theſe Colonies, Capua, ſo called of the Champane country, Aquinum; Sueſſa, Venafrum, Sora, Teanum, named withall Sidicinum and Nola: the Townes bee, Abellinum, Aricia, Alba Longa, Acerrani, Allifani, Atinates, Aletrinates, Anagnini, Atellani, Aſulani,
B Arpinates, Auximates, Avellani, Alfaterni; and they who of the Latine, Hernick, and Labicane territories, are ſurnamed accordingly: Bovillæ, Calatiæ, Caſinum, Calenum, Capitulum, Cernetum, Cernetani, who be called alſo Mariani. Corani deſcended from Dardanus the Trojane. Cubulterini, Caſtrimonienſes, Cingulani. Fabienſes, and in the mount Albane, Foro-populienſes. Out of the Falerne territorie, Fruſinates, Ferentinates, Freginates, Fabraterni the old, Fabraterni the new, Ficolenſes, Fricolenſes, Foro-Appi, Forentani, Gabini, Interramnates, Succaſani called alſo Lirinates, Ilionenſes, Lavinij, Norbani, Nementani. Preneſtini, whoſe citie was in times paſt named Stephanus, Privernates, Setini, Signini, Sueſſulani, Telini, Trebutini ſurnamed Balinienſes, Trebani, Tuſculani. Verulani, Veliterni, Vlubrenſes, Vlvernates: and above alſo Rome her ſelfe: the *other name wherof to utter, is counted in the ſecret myſteries of ceremonies an impi- *Valentia.
C ous & unlawfull thing: which after that it was aboliſhed, and ſo faithfully obſerved to right good purpoſe and for the ſafetie therof, *Valerius Soranus* blurted out, & ſoon after abid the ſmart for it. I thinke it not amiſſe nor impertinent, to inſert here in this very place, an example of the auncient religion inſtituted eſpecially for this Silence: for the goddeſſe *Angerona*, whoſe holiday is ſolemnly kept with ſacrifices the 12 day before the Kalends of Ianuarie, is repreſented by an Image having her mouth faſt tyed and ſealed up. This citie of Rome had 3 gates when *Romulus* left it, or rather foure (if we beleeve the moſt men that write thereof.) The walls thereof, when the two *Veſpaſians*, Emperors and Cenſors both, to wit, the father and *Titus* his ſon, tooke the meaſure, which was in the yeere after the foundation of it 828, were in circuit * 13 miles and almoſt a *Some read
quarter. It containeth within it, ſeven mountaines, and is divided in 14 regions, and 265 croſſe 30.
D ſtreets or carrefours, called Compita Larium. The meaſure of the ſame equall ſpace of ground, running from the gilden pillar Milliarium, erected at the head or top of the Rom. Forum, to everie gate, which are at this day 37 in number, ſo yee reckon once the 12 gates alwayes open, and over-paſſe 7 of the old, which are no more extant, maketh 30 miles 3 quarters and better by a ſtraight line: but if the meaſure be taken from the ſame Milliarium before-ſaid, through the ſuburbs to the utmoſt ends of the houſes, and take withall the Caſtra Prætoria, and the pourpriſe of all the ſtreets, it commeth to ſomewhat above 70 miles: whereunto if a man put the heigth of the houſen, hee may conceive verily by it, a worthy eſtimate of the excellencie thereof, and confeſſe that the ſtatelineſſe of no citie in the world, could be comparable unto it. Encloſed it is and fenced on the Eaſt ſide, with the banke or rampier of *Tarquinius* the Proud; a wonderfull
E peece of worke as any other, and as excellent as the beſt: for he raiſed it full as high as the walles, in that ſide where the advenue to it was moſt open and plaine. In other parts, defended it was and fortified with exceeding high walles, or elſe ſteepe and craggie hills, but only whereas there are buildings lye out abroad, and make as it were many petie cities. In that firſt region of Italie there were beſides, firſt for Latium theſe faire townes of marke, Satricum, Pometia, Scaptia, Pitulum, Politorium, Tellene, Tifata, Cæmina, Ficana, Cruſtumerium, Ameriola, Medullia, Corniculum, Saturnia, where now Rome ſtandeth. Antipolis, which now is Ianiculum, in one part of Rome: Antemnæ, Camerium, Collatiæ: Amiternum, Norbe, Sulmo: and with theſe, the States that were wont to receive a dole of fleſh in mount Albane, to wit, Albenſes, Albani,
F Aeſolani, Acienſes, Abolani, Bubetani, Bolani, Caſuetani, Coriolani, Fidenates, Foretij, Hortenſes, Latinenſes, Longulani, Manates, Marales, Mutucumenſes, Munienſes, Numinienſes, Olliculani, Octulani, Pedani, Polluſtini, Querquetulani, Sicani, Siſolenſes, Tolerienſes, Tutienſes, Vimitellarij, Velienſes, Venetulani, Vicellenſes. Thus yee ſee, how of the old Latium, there be 53 States periſhed and cleane gone, without any token left behind. Moreover, in the Campaine countrey, the towne Stabiæ continued unto the time that *Cn. Pompeius* and *L. Carbo*

were

were Consuls, even untill the last day of Aprill; upon which day, *L. Sylla* a lieutenant in the Allies warre, destroyed it utterly: which now at this day is turned into graunges and ferme-houses. There is decaied also there and come to finall ruine, Taurania. There be also some little relikes left of Casilinum, lying at the point of the last gaspe. Moreover *Antias* writeth, that Apiolæ a towne of the Latines, was woon by *L. Tarquinius* the king, with the pillage whereof he began to found the Capitoll. From Surrentum, to the river Silarus, the Picentine countrey lay for the space of 30 miles, renowmed for the Tuscanes goodly temple built by *Iason* in the honor of *Iuno Argiva*. Within it, stood the townes Salernum, and Picentia. At Silarus, the third region of Italy, beginneth together with the Lucane and Brutian countries: and there also the inhabitants chaunged not a few times. For held and possessed it was by the Pelasgi, Oenotri, Italy, Morgetes, Sicilians, people all for the most part of great Greece: and last of all by the Lucanes descended from the Samnites, who had to their leader and governour, *Lucius*. In which, standeth the towne Pæstum, called by the Greekes Posidonia: the Firth or creeke Pæstanus, the town Helia, now Velia. The promonrorie Palinurum, from which creeke retired within-forth, there is a direct cut by water to the columne Rhegia, 100 miles over. Next unto this, the river Melphes runneth: also there, standeth the towne Buxentum, in Greeke Pyxus, and hard by is the river Laus: a towne there was likewise of the same name. And from thence beginneth the sea-coast of Brutium, where is to be seene the towne Blanda, the river Batum, the haven Parthenius belonging to the Phocæans: the Firth Vibonensis, the grove Clampetia, the towne Temsa, called of the Greeks Temese: and Terina held by the Crotonians, and the mightie arme of the sea, called the gulfe Terinæus: the towne Consentia. Within-forth in a demie yland, the river Acheron, whereof the townes-men are called Acherontium. Hippo, which now we call Vibovalentia; the Port of *Hercules*, the river Metaurus, the towne Taurentum, the haven of Orestes, and Medua: the towne Scylleum, the river Cratais, mother (as they say) to Scylla. Then after it, the columne Rhegia: the Sicilian streights or narrow seas, and two capes one over-against the other; namely, Cænis from Italie side, and Pelorum from Sicilie, having a mile and a halfe betweene them: from whence to Rhegium is 12 miles and a halfe: and so forward to a wood in the Apennine, called Sila; and the promontorie or cliffe called Leucopetra, 12 myles off. From which, Locri (carrying the name also of the promontorie Zephyrium) is from Silarus distant 303 miles. Here is determined the first gulfe of Europe, wherein be named these seas. First, Atlanticum (from which the Ocean sea breaketh in) called of some Magnum: the passage whereas it entreth, is of the Greekes called Porthmos; of us, Fretum Gaditanum, *i.* [The streights of Gebraltar] when it is once entred the Spanish sea, so farre as it beateth upon the coasts of Spaine: Of others, Ibericum, or Balearicum: and anon it taketh the name of Gallicum, or the French sea, right before the province Narbonensis: and after that, Ligusticum: from whence all the way to the Iland Sicilie, it is called Tuscum; which some of the Græcians tearme Notium, others Tyrrhenum, but most of our countrymen Inferum, *i.* [The nether sea.] Beyond Sicilie as farre as to the Salentines, *Polybius* calleth it Ausonium: but *Eratosthenes* nameth all the sea Sardonum, that is betweene the mouth of the Ocean and Sardinia: and from thence to Sicilie, Tyrrhenum: and from it as farre as to Creta, Siculum: from which it is hight Creticum. The Ilands discovered along these seas, were these: The first of all, those which the Greekes named Pityüsæ, of the Pine shrub or plant; but now, Ebusus: they are both a State confederate, and a narrow arme of the sea runneth betweene them: they are 42 miles over. From Dianeüm, they lye 70 stadia: and so many are there, betweene Dianeum and Carthage, by the maine land: and as much distance from Pityusæ into the maine Ocean, lye the two Baleare Ilands; and toward Sucro, Colubraria. These Baleares in their warre-service use much the Sling; and the Greeks name them Gymnesiæ. The bigger of them is an hundred miles in length, and in circuit 380. Townes it hath of Romane citizens, Palma and Pollentia: of Latines, Cinium and Cunici: as for Bochri, it was a towne confederate. From it, the lesser is thirtie miles off, taking in length 60 miles, and in compasse 150. Cities in it, be Iamno, Sanisera, and Mago. From the bigger 12 miles into the sea, lieth the Ile Capraria, which lieth in wait for all shipwrack: and over-against the citie Palma, Menariæ, and Tiquadra, and little Annibalis. The soile of Ebusus chaseth serpents away, but that of Colubraria, breedeth them: and therfore dangerous it is for all that come into it, unlesse they bring with them some of the Ebusian earth. The Greekes call this Iland, Ophiusa. Neither doth Ebusus breed any Conies; which are so common in the Baleares, that they eate up their corne.

There

A There be as it were 20 more little ones among the shelves of the sea. Now in the maritime coast of Gallia in the very mouth of Rhodanus, there is Metina; and soone after, that which is called Blascon; and the three Stœchades, called so of their neighbours the Massilians, for the order and ranke wherein they stand; and they give them every one a severall name, to wit, Prote, Mese, (which also is called Pomponiana) and the third, Hypea. After them, are Sturium, Phœnice, Phila, Lero, & Lerina over-against Antipolis; wherein also is a token or memoriall of the town Vergaonum.

Chap. vi.

Of Corsica.

B IN the Ligurian sea, is Corsica the yland, which the Greekes called Cyrnos, but nearer it is to the Tuscane sea: it lyeth out from the North into the South, and containeth in length an hundred and fiftie miles: in breadth for the more part it beareth fiftie: in circuit 322: distant it is from the Washes or Downes of Volaterræ 62 miles. Cities it hath 35: and these colonies, to wit, Mariana, planted there by *C. Marius*: Aleria, by Dictatour *Sylla*. On this side of it, is Oglasa; but within 60 miles of Corsica, there is Planaria, so called of the forme thereof, so flat it is and levell with the sea; and therefore deceiveth many a ship that runneth aground upon it. Bigger than it are Vrgo and Capraria, which the Greekes called Ægilos. In like manner Ægi-
C lium and Dianium, the same that Artemisia, both lying over against the coast Cosanum. Other small ones also, as Mænaria, Columbrarie, Venaria, Ilua, with the yron mines, in circuit a hundred miles (ten miles from Populonia) called of the Greekes, Æthalia: from it is Planasia 39 miles off. After them, beyond the mouthes of Tybre in the Antian creeke, is Astura, and anon Palmaria, Sinonia, and just against Formiæ, Pontiæ. But in the Puteolane gulfe, Pantadaria and Prochyta, so called, not of *Aeneas* his nource, but because it was broken off by the gushing betweene of the sea from Ænaria. Ænaria it selfe tooke that name of *Aeneas* his ships that lay in rode there, called by *Homer* Inarime, of the Greekes Pithecusa, not for the number of Alps there, as some have thought, but of the worke houses and furnaces of potters that made earthen vessels, as tunnes and such like, to furnish Italie with. Betweene Pausilypus and Naples, Me-
D garis; and soone after, eight miles from Surrentum, Capreæ, renowmed for the castle there of prince *Tyberius*; and it beareth in compasse foure hundred miles. Anon you shall see Leucothea: but without your kenning, lyeth Sardinia fast upon the Africke sea, but lesse than nine miles from the coast of Corsica: and still those streights are made more narrow by reason of small ylands, named Cuniculariæ. Likewise Phintonis and Fossæ, whereof the very sea it selfe is named Taphros.

Chap. vii.

Of Sardinia.

E SArdinia on the East side beareth 188 miles, on the West 170, Southward 74, and Northward 122: so that in all, it taketh up the compasse of 560 miles. It is from the Cape of Caraleis to Africke 200 miles: from Gades it is distant 14 hundred miles. It hath two ylands on that side where the promontorie Gorditanum standeth, which be called *Hercules* ylands; of Sulsenses cape side, Enosis; of Caralitanum, Ficaria. Some set not farre from it the ylands Belerides, and Collodes: and another which they call Heras Lutra, *i. Iunoes* laver, or Hieraca. The States of greatest name therein, be the Ilienses, Balari, and Corsi: and of the foure townes, the chiefe are inhabited by the Sulcitanes, Valentines, Neapolitanes, Bosenses, and Caralitani who are Romane enfranchised citizens, and Norenses. One colonie there is in it and no more, which is called, Ad Turrim Libysonis. This yland Sardinia, *Timæus* called (of the fashion of a shoe or slipper) Sandaliotis: but *Myrsylus*, for the resemblance of a footes step, Ichnusa. Over-against
F the creeke Pæstanum, there is Leucasia, called so of a Meremaid or Sirene there buried. Against Vestia, there lye Pontia and Issia, both joyntly called by one name Oenotides; a good presumption and argument that Italie was possessed by the Oenotrians. And against Vibo, other little ones, called Ithacesiæ, the watch townes of *Vlysses*.

G

Chap. viii.

Of Sicilie.

BVt Sicilie excelleth all other of theſe Ilands, named by *Thucydides* Sicania; by many, Trinacria, or Triquetra of the triangle forme. It is in circuit (as *Agrippa* ſaith) 198 miles. In time paſt it grewe to the Brutians countrey, but ſoone after by the guſhing of the ſea between, it was plucked from it, and left a Firth of 12 miles in length, and one and a halfe in bredth, neere unto the columne Rhegium. Vpon this occaſion of opening and cleaving in twaine, the Greekes gave name to the towne Rhegium, ſituate in the edge of Italie. In this narrow ſea there H
is a rocke called Scylla, and likewiſe another named Charybdis: the ſea is full of whirle-pits, and both thoſe rockes are notorious for their rage and miſchiefe. The utmoſt Cape or fore-land of this Iland Triquetra (as we have ſaid) is called Pilorus, bending againſt Scylla toward Italie. As for Pachynum, it lyeth toward Græcia, and from it is Peloponneſus diſtant 144 miles. Lilibæum butteth upon Africke, and between it and the cape of *Mercurie* there be 180 miles: and from the ſaid Lilybæum to the Cape of Caraleis in Sardinia 120. Now theſe points and promontories lye aſunder one from the other in this diſtance. By land from Pelorus to Pachynum, 166 miles: from thence to Lilybæum 200 miles: ſo forward to Pelorum 170. In it, of colonies, townes, and cities, there be 72. From Pelorum ſide, which looketh toward the Ionian ſea, ye have the towne Meſſana, inhabited by enfranchiſed Romane citizens, and they be called Mamertini. Alſo the I
cape Drepanum, the colonie Taurominium, called before-time Naxos; the river Aſines, the mountaine Ætna, miraculous for the fires there in the night ſeaſon; the hole or open chinke in the top of it is in compaſſe two miles and a halfe; the imbers and ſparkling aſhes therof, flie hot as farre as to Taurominium and Catana: but the cracking noiſe thereof may be heard as farre as to Maron, and the hilles Gemellis. In this Iland there be alſo the three rockes of the Cyclopes, the port of *Vlyſſes*, the colonie Catanæ, the rivers Symethum and Terias: within the Ile by the plaines and champian fields, Læſtrigonij. The towns are theſe, Leontini, and Megaris: and in it is the river Pantagies: alſo the colonie Syracuſæ, together with the fountaine Arethuſa. Albeit there be other ſprings alſo in the territorie of Syracuſa, that yeeld water for drinke, to wit, Temenitis, Archidemia, Magæa, Cyane, and Milichre. Moreover, the haven Nauſtathmos, the K
river Elorum, the promontorie Pachynum: and on this front of Sicilie, the river Hirminium, the towne Camarina, the river Helas, and towne Acragas, which our countreymen have named Agrigentum. The colonie Thermæ: rivers, Atys and Hypſa: the towne Selinus: and next to it the cape Lilybæum, Drepana, the hill Eryx. Townes there be, Panhormum, Solus, Hymetta with the river, Cephalœdis, Aluntium, Agathirium, Tyndaris a colonie, the towne Mylæ, and whence we began Pelorus. Within-forth, of Latine condition and burgeoiſie, the Centuripines, Netines, and Segeſtines. Tributaries, Aſſarines, Ætnenſes, Agyrines, Aceſtæi, and Acrenſes: Bidini, Citarij, Caciritani, Drepanitani, Ergetini, Eceſtienſes, Erycini, Eutellini, Etini, Euguini, Gelani, Galatani, Haleſines, Ennenſes, Hyblenſes, Herbitenſes, Herbeſſenſes, Herbulonſes, Halicyenſes, Hadranitani, Imacarenſes, Ichanenſes, Ietenſes, Mutuſtratini, Magellini, Murgentini, L
Mutyenſes, Menanini, Naxij, Nocœni, Pelini, Paropini, Phinthienſes, Semellitani, Stherrini, Selinuntij, Symætij, Talarenſes, Tiſſinenſes, Triocalini, Tiracienſes, Zanchæi belonging to the Meſſenians in the ſtreights of Sicilie. Ilands there be bending to Africke, Gaulos, Melita, from Camerina 84 miles, and from Lilybæum 113: Coſyra, Hieroneſus, Cæne, Galata, Lopaduſa, Æthuſa, which others have written Æguſa, Bucina, and 75 myles from Solus, Oſteodes: and againſt the Paropini, Vſtica. But on this ſide Sicilie over-againſt the river Metaurus, 12 miles well-neare from Italie, 7 others called Æoliæ. Theſe very ſame Ilands belonged ſometimes to the Liparæans, and of the Greeks were called Hephæſtiades, and of our men Vulcaniæ, likewiſe Æoliæ, becauſe *Aeolus* reigned there in the time that Ilium flouriſhed, and about the Trojan war.

M

Chap. ix.

Of Lipara.

LIpara with a towne of Romane citizens, called ſo of king *Liparus*, who ſucceeded *Aeolus*, but before-time Melogonis or Meligunis, is 12 myles from Italie, and is it ſelfe ſomewhat leſſe in circuit. Betweene this and Sicilie there is another, ſometime named Theraſia, now Hiera,

A Hiera, becauſe it is conſecrated to *Vulcan*, wherin there is a little hill that belcheth and caſteth up flames of fire in the night. A third there is alſo, named Strongyle, a mile from Lipara, lying toward the ſunne-riſing (wherein *Aeolus* reigned) and differeth from Lipara onely in this, that it ſendeth foorth more cleere flames of fire: by the ſmoke thereof, the people of that countrey will tell (by report) three dayes before-hand what winds will blow: whereupon it is commonly thought, that the winds were obedient to *Aeolus*. A fourth there is beſides, named Didyme, leſſe than Lipara: and a fift, Ericuſa: a ſixt, Phœnicuſa, left to feed the reſt that are next to it: the laſt and leaſt is Euonymus. And thus much concerning the firſt gulfe that divideth Europe.

Chap. x.

B

❧ *Of Locri, the frontier towne of Italie.*

AT Locres beginneth the front or forepart of Italie, called Magna Græcia, retiring it ſelfe into three creekes of the Auſonian ſea, becauſe the Auſones firſt inhabited thereby. It extendeth 82 miles, as *Varro* teſtifieth. But the greater number of writers have made but 72. In that coaſt there bee rivers without number. But thoſe things which are worth the writing off neere unto Locres, be theſe, Sagra the river, and the reliques of the towne Caulon: Myſtia, the caſtle Conſilium, Cerinthus, which ſome thinke to be the utmoſt promontorie of Italie, bearing fartheſt into the ſea. Then followeth the creeke or gulfe Scylacenſu, and that which was called by the Athenians when they built it, Scylletium. Which place, another creeke Terinæus, meeting
C with, maketh a demie Iſland: in which, there is a port towne called Caſtra Annibilis: and in no place is Italie narrower, being but twentie mile broad. And therefore *Dioniſius* the elder would have there cut it off quite from the reſt, and laid it to Sicilie. Rivers navigable there be theſe, Cæcinos, Crotalus, Semirus, Arocha, Targines. Within-forth is the towne Petilia, the mountaine Alibanus, and promontorie Lacinium: before the coaſt whereof there is an Iſland tenne miles from the land, called Dioſcoron, and another Calypſus, which *Homer* is ſuppoſed to have called Ogygia. Moreover, Tyris, Eranuſa, Meloeſſa. And this is ſeventie miles from Caulon, as *Agrippa* hath recorded.

Chap. xi.

D

❧ *The ſecond Sea of Europe.*

FRom the promontorie Lacinium beginneth the ſecond ſea of Europe: it taketh a great winding and compaſſe with it, and endeth at Acroceraunium, a promontorie of Epirus, from which it is ſeventie miles diſtant. In which, there ſheweth it ſelfe the towne Croto, and the river Næthus. The towne Thurium betweene the two rivers, Arathis and Sybaris, where there was a towne of the ſame name. Likewiſe, between Siris and Aciris there ſtandeth Heraclea, ſometime called Siris. Rivers, Acalandrum, Maſuentum: the towne Metapontum, in which the third region of Italie taketh an end. The Inlanders be of the Brutians, the Apruſtanes only: but of Lucanes, Thoatinates, Bantines, Eburines, Grumentines, Potentines, Sontines, Sirines, Sergilanes,
E Vrſentines, Volcentanes, unto whom the Numeſtranes are joined. Beſides all theſe, *Cato* writeth, That Thebes of the Lucanes, is cleane deſtroied and gone. And *Theopompus* ſaith, That Pandoſia was a cittie of the Lucanes, wherein *Alexander* king of the Epirotes, was ſlaine. Knit hereunto is the ſecond region or tract of Italie, containing within it the Hirpines, Calabria, Apulia, and the Salentines within an arme of the ſea, in compaſſe 250 miles, which is called Tarentinus of a towne of the Laconians, ſituate in the inmoſt nouke or creeke hereof: and to it was annexed and lay the maritime colonie which there was. And diſtant it is from the promontorie Lacinium 136 miles, putting forth Calabria like a demie Iſland againſt it. The Greekes called it Meſſapia of their captaines name, and beforetime, Peucetia, of *Peucetius*, the brother of *Oenotrus*. In the Sa-
F lentine countrey betweene the two promontories, there is a hundred miles diſtance. The bredth of this demie Iſland, to wit, from Tarentum to Brindis (if you goe by land) is two and thirtie miles, but farre ſhorter if you ſaile from the Haven or Bay Saſina. The townes in the Continent from Tarentum, bee Varia, ſurnamed Apula, Ceſſapia and Aletium. But in the coaſt of the Senones, Gallipolis, now Auxa, 62 miles from Tarentum. Two and thirtie miles off is the promontorie which they call Acra Iapygia, and here Italie runneth fartheſt into the ſea. Then

is there the towne Baſta,and Hydruntum in the ſpace of nineteene miles,to make a partition betweene the Ionian and the Adriaticke ſeas,through which is the ſhorteſt cut into Greece overagainſt the towne Apollonia, where the narrow ſea running betweene,is not above fiftie miles over.This ſpace betweene,*Pyrrhus* king of Epirus,was the firſt,that intending to have a paſſage over on foot,thought to make bridges there: after him *M.Varro*, at what time as in the Pyrates warre he was Admirall of *Pompeies* fleet. But both of them were let and ſtopped with one care or other beſides.Next to Hydrus,there is Soletum,a cittie not inhabited:then,Fratuertium:the haven Tarentinus,the garriſon towne Lupia, Baleſium, Cælium, Brunduſium fifteene miles from Hydrus, as much renowmed as any towne of Italie for the haven, for the ſurer ſailing, although it bee the longer,and the cittie of Illyricum Dyrrhagium is readie to receive the ſhips: the paſſage over is 220 miles.Vpon Brunduſium bordereth the territorie of the Pædiculi. Nine young men there were of them, and as many maids, deſcended from the Illyrians, who begat betweene them thirteene nations.The townes of theſe Pædiculi,be Rhudia,Egnatia,Barion,beforetime Iapyx of *Dedalus* his ſonne, who alſo gave the name to Iapygia. Rivers,Pactius and Aufidus iſſuing out of the Hirpine mountaines,and running by Canuſium.Then followeth Apulia of the Daunians, ſurnamed ſo of their leader, father in law to *Diomedes*. In which is the towne Salapia,famous for the love of an harlot that *Anniball* caſt a fancie unto; then, Sipontum and Vria: alſo the river Cerbalus,where the Daunians take their end: the port Agaſus,the capè of the mountaine Garganus,from Salentine or Iapygium 234 miles, fetching a compaſſe about Garganus: the haven Garnæ,the lake Pantanus. The river Frento,full of Baies and Havens,and Teanum of the Apulians. In like manner alſo,Larinum, Aliternia,and the river Tiſernus.Then commeth in the region Frentana. So there be three kinds of nations,Teani,of their leader, from the Greekes: the Lucanes ſubdued by *Calchas*, which quarters now the Atinates hold and occupie. Colonies of the Daunians beſides the abovenamed, Luceria and Venuſia: townes,Canuſium,Arpi,ſometime Argos Hippium,builded by *Diomedes*,but ſoon after called Argyrippa.There *Diomedes* vanquiſhed and deſtroied the whole generation of the Monadians and Dardians,together with two citties,which grew to a merry jeaſt by way of a by-word,Apina and Trica.The reſt be more inward in the ſecond region,to wit,one Colonie of the Hirpines called Beneventum,chaunged into a more luckie name,whereas in times paſt it was cleaped Maleventum : the Æculanes, Aquilonians, and Abellinates, ſurnamed Protropi: the Campſanes, Caudines,and Ligurians ſurnamed Cornelians: as alſo Bebianes,Veſcellanes, Deculanes,and Aletrines: Abellinates ſurnamed Marſi,the Atranes,Ecanes,Aſellanes,Attinates,& Arpanes: the Borcanes,the Collatines,Corinenſes: and famous for the overthrow of the Romanes there, the Cannians : the Dirines, the Forentanes, the Genuſines, the Hardonians and Hyrines : the Larinates ſurnamed Frentanes,the Metinates,and out of Garganus the Mateolanes, the Neritines,and Natines,the Rubuſtines,the Sylvines & Strapellines, the Turmentines,the Vibinates, Venuſines,and Vlurtines.Now the In-landers of the Calabrians,the Ægirines,Apaneſtines and Argentines. The Butuntines and Brumbeſtines,the Decians,the Norbanes,the Palions, Sturnines,and Tutines.Alſo of Salentine midlanders,the Aletines, Baſterbines, Neretines, Valentines,and Veretines.

Chap. xii.

The fourth Canton or region of Italie.

NOw followeth the fourth region,even of the moſt hardie and valiant nations of all Italie. In the coaſt of the Frentanes,next to Tifernus,is the river Tirinium, full of good havens and harbours. The towns there,be Hiſtonium, Buca,and Ortona,with the river Aternus. More within the countrey,are the Anxanes ſurnamed Frentanes: the Carentines,both higher and lower,the Lanuenſes: of Marrucines,the Teatines: of Pelignians,the Corſinienſes, Super-Æquani and Sulmonenſes: of Marſians,the Anxantines and Atinates,the Fucentes,Lucentes, and Maruvij: of Albenſes, Alba upon the lake Fucinus: of Æquiculanes, the Cliternines and Carſeolanes: of Veſtines,the Augulanes,Pinnenſes,Pelevinates,unto whom are joined the Aufinates on this ſide the mountaines: of Samnites, whom the Greekes called Sabellians and Saunites,the Colonie Bovianum,the old; and another ſurnamed Vndecumanorum, namely,inhabited by thoſe of the eleventh legion: the Aufidenates, Eſernines, Fagiſulani, Ficolenſes,Sepinates,

A nates, Treventinates: of Sabines, the Amiternines, Curenſes, Forum Decij, Forum-Novum, the Fidenates, Interamnates, Nurſines, Nomentanes, Reatines, Trebulanes, who are ſurnamed Mutuſcæi, as alſo Suffenates, the Tiburtes, and Tarinates. In this quarter of the Æquiculæ, there be periſhed and gone the Comines, Tadianes, Acedikes, and Alfaterni. *Gellianus* writeth, That Acippe, a towne of the Marſians, built by *Marſyas* a captaine of the Lydians, was drowned and ſwallowed up by the Lake Fucinus. Alſo *Valerianus* reporteth, that a towne of the Vidicines in Picenum, was utterly deſtroied by the Romanes. The Sabines, as ſome have thought, were for their religion and devout worſhipping of the gods called Sevini: they dwell hard by the Veline Lakes upon moiſt and dewie hils. The river Nar draineth them drie with his hote waters of brimſtone. Which river running from thence toward Tiberis, filleth it: and gliding from the hill Fiſ-
B cellus, neer unto the groves of Vacuna and Reate, is hidden in the ſame. But from another ſide, the river Anio, beginning in the mountaine of the Trebanes, bringeth with it into Tiberis three Lakes of great name, for their delectable pleaſantneſſe, which gave the name to Sublaquenſu. In the Reatine territorie there is the Lake Cutiliæ, wherein there floteth an Iſland: and this Lake *M. Varro* ſaith, is the very middeſt and centre of Italie. Beneath the Sabines, lieth Latium; on the ſide, Picenum; behind, Vmbria; and the hils of the Apennine on either hand, doe encloſe as with a rampier, the Sabines.

Chap. XIII.

The fifi region.

C THe fifth region is Picene, a nation in times paſt moſt populous, 360000 of the Picentes were reduced under the protection of the people of Rome. They are deſcended from the Sabines, upon a vow that they made to hold and ſolemniſe a ſacred Spring. They dwelt by the river Aternus, where now is the territorie Adrianus, and the Colonie Adria, ſeven miles from the ſea. There runneth the river Vomanum and there lieth the Prætutiane and Palmenſis: territories. *Item*, Caſtrum Novum, the river Batinum, Truentum with the river; which is the onely relique of the Liburnians remaining in Italie. More rivers there bee, to wit, Alpulates, Suinum, and Helvinum, at which the Prætutian countrey endeth, and the Picentian beginneth. The town Cupra, a caſtle of the Firmanes, and above it the Colonie Aſcuum, of all Picenum the moſt re-
D nowmed. Within ſtandeth Novana. In the edge or marches without, are Cluana, Potentia, and Numana, built by the Sicilians. Next to thoſe is the Colonie Ancona, with the Promontorie Cumerum lying hard unto it, in the very elbow of the edge thereof as it bendeth, and it is from Garganus 183 miles. Within-forth there do inhabite the Auximates, Beregranes, Cingulanes, Cuprenſes ſurnamed the Mountainers, Falariens, Pauſulanes, Pleninenſes, Ricinenſes, Septempedani, Tollentinates, Triacenſes, the cittie Salvia, and the Tollentines.

Chap. XIIII.

The ſixt region.

E TO theſe adjoineth the ſixt region, comprehending Vmbria, and the French pale about Ariminum. At Ancona begin the French marches, by the name of Togata Gallia. The Sicilians and Liburnians poſſeſſed moſt parts of that tract, and principally the territories, Palmenſis, Prætutianus, and Adrianus. Them, the Vmbrians expelled: theſe againe Hetruria drave out: and laſt of all, the Gaules diſſeiſed it. The people of Vmbria are ſuppoſed, of all Italie to bee of greateſt antiquitie, as whom men thinke to have beene of the Greekes named Ombri, for that in the generall deluge of the countrey by raine, they onely remained alive. The Tuſcanes are knowne to have by warre forced and woon three hundred townes of theirs. At this day in the frontier of it, there are the river Æſus, and Senogallia: the river Metaurus, and the Colonie Fa-
F nium Fortunæ. Piſaurum alſo with the river. In the parts within, Hiſpellum and Tuder. In the reſt, the Amerines, Attidiates, Aſirinates, Arnates, and Æſinates. Camertes, Caſventillanes, and Carſulanes, Dolates, ſurnamed Salentines, Fulginates, Foro-flaminienſes, Foro-Iulienſes, named alſo Concubienſes, Foro-bremitiani, Foro-Sempronienſes, Iguini, Interamnates, ſurnamed Nartes, Mevanates, Mevanienſes, and Matilicates, Narnienſes, whoſe towne beforetime was called Nequinum. Nucetines, ſurnamed Favonienſes and Camelani. The Otriculanes, and Oſtranes.

The Pitulanes with the addition of Piſuertes, as alſo others ſurnamed Mergentines, and the Peleſtines, Sentinates, Sarſinates, Spoletines, Suarranes, Seſtinates, and Suillates, Sadinates, Trebiates, Tuficanes, Tifernates, named withall Tribertines, as alſo other of them diſtinguiſhed by the name of Metaurenſes. The Veſionicates, the Vrbinates, as well they that bee ſurnamed Metaurenſes, as others Hortenſes, the Vettionenſes, Vindenates and Viventanes. In this tract there are extinct the Felignates, and they who poſſeſſed Cluſiolum above Interamna: alſo the Sarranates, with the townes Acerræ, called beſides Vafriæ, and Turceolum, the ſame that Vetriolum. Semblably the Solinates, Suriates, Fallienates, Apiennates. There are gone likewiſe and cleane loſt the Arienates with Crinovolum, alſo the Vſidicanes and Plangenſes, the Piſinates and Cæleſtines. As for Amera above written, *Cato* hath left in record, That it was built 964 yeeres before the warre againſt *Perſeus*. G H

Chap. xv.

The eight region.

THe eight region is bounded with Ariminum, Padus, and Apennine. In the borders thereof is the river Cruſtuminum, the colonie Ariminum, with the rivers Ariminum and Apruſa. Then the river Rubico, the utmoſt limit ſometime of Italie. After it, Sapis the river, Vitis and Anemo, Ravenna a towne of the Sabines with the river Bedeſes, 102 miles from Ancona. And not farre from the Vmbrians ſea, Butrium. Within-forth are theſe Colonies, Bononie uſually called Felſina, when it was the head cittie of Hetruria, Brixillum, Mutina, Parma, Placentia. I Townes, Cæſena, Claterna, Forum-Clodij, Livij and Popilij, pertaining to the Truentines: alſo [Forum] the Cornelij, Laccini, Faventini, Fidentini, Oteſini, Padinates, Regienſes a Lepido, Solonates: alſo the forreſts Galliani ſurnamed Aquinates, Tanetani, Veliates ſurnamed Vecteri, Regiates and Vmbranates. In this tract the Boij are conſumed, who had 112 tribes or kinreds, as *Cato* maketh report. Likewiſe the Senones, they that tooke Rome.

Chap. xvi.

Of the river Padus.

PAdus iſſuing out of the boſome of the mountaine Veſulus, bearing up his head aloft into K a mightie heigth, runneth from a marvailous ſpring worth the ſeeing, in the marches of the Ligurian Vagienni; and hiding it ſelfe within a narrow trench, as it were, under the ground, and riſing up againe in the territorie of the Forovibians, is inferiour to no other rivers for excellencie. Of the Greekes, called it was Eridanus, and is much ſpoken of and well knowne, for the puniſhment of *Phaëton*. It ſwelleth about the riſing of the Dog ſtarre, by reaſon that the ſnow is then thawed: more unruly and rough unto the fields thereby, than to the veſſels upon it: howbeit, nothing ſtealeth it and carryeth away as his owne, but when hee hath left the fields, his bountie is more ſeene by their plenty and fruitfulneſſe: from his head, hee holdeth on his courſe 90 miles wanting twaine, above three hundred. In which paſſage of his, he taketh in unto him, not onely the navigable rivers of the Apennine and the Alpes, but huge maine lakes al- L ſo that diſcharge themſelves into him: ſo as in all he carryeth with him into the Adriaticke ſea, to the number of 30 rivers. The chiefe and moſt notorious of all them, are theſe, ſent out of the ſide of Apennine; Tanarus, Trebia, Placentine, Tarus, Nicia, Gabellus, Scultenna, Rhenus, But running out of the Alpes, Stura, Morgus, Duriæ twaine, Seſſites, Ticinus, Lambrus, Addua, Olius, and Mincius. And there is not a river againe, that in ſo little a way groweth to a greater ſtreame: for over-charged it is and troubled with the quantitie of water, and therefore worketh it ſelfe a deepe channell, heavie and hurtfull to the earth under it, although it be derived and drawne into other rivers and goles, betweene Ravenna and Ativum, for 120 miles: yet becauſe he belcheth and caſteth them out from him in ſo great abundance, he is ſaid to make ſeven ſeas. Drawne he is to Ravenna by a narrow channell, where he is called Baduſa, and in times paſt M Meſſanicus. But the next mouth that he maketh, carryeth the bigneſſe of an haven, which is named Vatreni: at which *Claudius Cæſar* as hee came triumphant out of Britaine, entred into Adria, with that huge veſſell, more like a mighty great houſe than a ſhip. This mouth of it was beforetime called Eridanum: of others, Spineticum of the citie Spinæ neere-by, built by *Diomedes*

(as

A (as ſome thinke) with the treaſures of Delphi. There the river Vatrenus from out of the territory of Forum Cornelij, encreaſeth Padus. The next mouth that it hath, is Capraſiæ, then Sagis, and ſo forth Volane, which before-time was named Olane. All thoſe rivers and trenches aforeſaid, the Tuſcanes began to make firſt out of Sagis, carrying the forcible ſtreame of the river a croſſe into the Atrian meeres, which are called the ſeven ſeas, and made the famous haven of Atria a towne of the Tuſcanes; of which the Adriaticke ſea tooke the name afore-time, which now is called Adriaticum. From thence are the full mouthes there of Carbonaria and the Foſſes Phyliſtinæ, which others call Tartarus, but all ſpring out of the overflowing of the Foſſe Phyliſtina, holpen with Atheſis comming out of the Tridentine Alpes, and Togiſonus out of the territorie of the Padovans. Part of them made alſo the next port Brundulum: like as the two
B Medoaci and the Foſſe Clodia, make Edron. With theſe Padus mingleth it ſelfe, and by theſe he runneth over, and as it is ſaid by moſt Writers, like as in Ægypt Nilus maketh that which they call Delta, ſo it ſhapeth a triangle figure between the Alpes and the ſea coaſt, two miles in compaſſe. A ſhame it is to runne to the Greekes for to borrow of them the Etymologie and reaſon of any things in Italy: howbeit *Metrodorus Scepſius* ſaith, That foraſmuch as about the ſpring and head of this river there grow many pitch trees, called in French Pades, therfore it tooke the name Padus. Alſo, that in the Ligurian language, the river it ſelfe is called Bodincus, which is as much to ſay, as bottomleſſe. And to approove this reaſon and argument, there is a towne therby called Induſtria, but by an old name Bodincomagum, where in very deed, beginneth the greateſt deapth thereof.

C

Chap. xvii.

Italie beyond Padus, the eleventh Region.

NExt to it, is the Region called Tranſpadana, and the eleventh in number: all whole in the mid-land part of Italy, into which the ſeas bring in all things with fruitfull channell. The townes therein, be Vibi-Forum, and Seguſta. The colonies at the foot of the Alpes, Auguſta of the Taurines, an auncient deſcent from the Ligurians: from whence Padus is navigable. Then, Auguſta Prætoria, of the Salaſſi, neere unto the two-fold gullets or paſſages of the Alpes, to wit, Graijæ and Peninæ: for men ſay, that the Carthaginians came through the one, and *Hercules* in at the other, named Graijæ. There ſtandeth the towne Eporedia, built by the people of
D Rome, by direction and commaundement out of the bookes of *Sibylla*. Now the Gauls in their tongue call good horſe-breakers Eporedicæ. Alſo, Vercella of the Lybici, deſcended from the Sallij: Novaria, from the Vertacomacores: which even at this very day is a village of the Vocontij, and not as *Cato* thinketh, of the Ligurians: of whom, the Levi and Marici built Ticinum, not farre from Padus: like as the Boij comming over the Alpes, founded Laus Pompeia; and the Inſubrians, Millaine. That Comus and Bergomus, yea and Licini-Forum, with other nations thereabout, were of the Orobian race, *Cato* hath reported: but the firſt beginning and originall of that nation of Orobians, he confeſſeth, that he knoweth not. Which notwithſtanding *Cornelius Alexander* ſheweth to have deſcended from the Greekes; and this he gueſſeth by the
E interpretation of their name, which ſignifieth, Men living in mountaines. In this tract, Barra a towne of the Orobians is cleane deſtroyed; from whence, *Cato* ſaith, the Bergomates tooke their beginning; bewraying even by their name, that they were ſeated more highly than happily. There are cleane gone and conſumed alſo the Caturiges, baniſhed perſons of the Inſubrians: likewiſe Spina, before-named. In like ſort, Melpum, a towne of ſpeciall importance for wealth; which (as *Nepos Cornelius* hath written) was by the Inſubrians, Doïans, and Senones, raſed on that very day, on which *Camillus* forced Veij.

Chap. xviii.

F

Venice, the tenth Region.

NOw followeth the tenth region of Italy, Venice, lying faſt upon the Adriaticke ſea: the river whereof Silis, commeth foorth of the mountaines Tauriſani: wherein alſo, is the towne Altinum, the river Liquentia iſſuing from the mountaines Opitergeni; a haven of the ſame name: the colonie Concordia. Rivers and havens, to wit, Romatinum, Tilaventum,

the

the greater and the leſſe: Anaſſum, wherunto Varranus runneth downe: Alſa, Natiſo, with Turrus, running faſt by Aquileia, a colonie ſituate 12 miles from the ſea. This is the region of the Carni, joyning unto that of the Iapides: the river Timavus, and the caſtle Pucinum, ſo famous for good wine. The vale and Firth Tergeſtinus, taking name of the Colonie Tergeſte, 23 myles from Aquileia: beyond which ſixe miles, is the river Formio, 189 miles from Ravenna: the ancient bound or limit of Italy enlarged: but at this day of Iſtria, which was ſo named of the river Iſter, flowing out of the river Danubius into Adria: and over-againſt the ſame Iſter, the gullet or mouth of Padus alſo entreth thither: by the contrary ruſhing ſtreames of which two rivers, the ſea between both, beginneth to be more mild; as many Authors have reported, but untruly: and *Cornelius* Nepos alſo, although hee dwelt juſt by Padus: for there is no river that runneth out of Danubius into the Adriaticke ſea. Deceived (I ſuppoſe) they were, becauſe the ſhip Argos went downe a river into the Adriaticke ſea, not farre from Tergeſte; but what river it was, is yet unknowne. They that will ſeeme to be more curious than their fellowes, ſay, That it was carried upon mens ſhoulders over the Alpes: and that it was ſet into Iſter, and ſo into Saus, and then Nauportus (which upon that occaſion tooke his name) which ariſeth betweene Æmona and the Alpes. G H

Chap. xix.

Of *Iſtria*.

Istria runneth out like a demie Iland. Some have delivered in writing, that it is 40 miles broad, and 122 myles about. The like they ſay of Liburnia adjoyning unto it, and of the hollow gulfe Flanaticus. But others ſay, that the compaſſe of Liburnia is 180 miles. And ſome there be againe, who have ſet out Iapidia, as farre as to the ſaid creeke Flanaticus, behind Iſtria 130 myles: and ſo haue made Liburnia in circuit 150 miles. *Tuditanus*, who ſubdued the Iſtrians, upon his owne ſtatue there ſet this Inſcription; That from Aquileia to the river Titius, were 200 ſtadia. The townes in Iſtria of Romane citizens, be Ægida and Parentium. A Colonie there is beſides, Pola, now called Pietas Iulia; built in old time by the Colchians. It is from Tergeſte 100 miles. Soone after, ye ſee the towne Neſactium, and the river Arſia, the utmoſt bound now of Italy. From Ancona to Pola, there is a cut over the ſea of 120 myles. In the mid-land part of this tenth region, are theſe Colonies; Cremona, and Brixia, in the Cenomanes countrey: but in the Venetians countrey, Ateſte. Alſo the townes, Acelum, Patavium, Opitergium, Belunum, Vicetia: Mantua of the Tuſcanes is onely left beyond Padus. That the Venetians were the offſpring of the Trojanes, *Cato* hath ſet downe in writing: alſo, that the Cenomanes neere unto Maſſiles, dwell in the Volſcians countrey. Fertines, Tridentines, and Bernenſes, are townes of Rhetia. As for Verona, it is of Rhetians and Euganeans; but Iulienſes be of the Carnians. Then follow theſe, whome we need to uſe no curioſitie in naming; Alutruenſes, Aſſeriates, Flamonienſes, Vannienſes, and others ſurnamed Gulici: Foro Iulienſes ſurnamed Tranſpadani: Forelani, Venidates, Querqueni, Tauriſani, Togienſes, Varvani. In this tract there be periſhed in the borders, Itaminum, Pellaon, Palſicium. Of the Venetians, Atina and Cælina: of the Carnians, Segeſte and Ocra: and of the Tauriſſi, Noreia. Alſo from Aquileia 12 myles, there was a towne quite deſtroyed by *M. Claudius Marcellus*, even maugre the Senate, as *L. Piſo* hath recorded. In this region there be alſo ten notable lakes and rivers, either iſſuing forth of them as their children, or elſe fed and maintained by them, if ſo be they ſend them out againe, when they have once received them: as Larius doth Æna, Verbanus Ticinus, Benacus Mincius, Sebinus Oſſius, Eupilius Lamber, all inhabiting and ſeated in Padus. The Alpes reach in length ten miles from the upper ſea to the lower, as *Cælius* ſaith: *Timogenes*, two and twentie: but *Cornelius Nepos* draweth them out in breadth an hundred myles: *T. Livius* ſaith, three thouſand ſtadia: both of them take meaſure in divers places: for ſometime they exceed an hundred miles, where they disjoyne Germanie from Italie: and in other parts they are ſo thin, that they make not full out threeſcore and ten myles; and that by the providence as it were of Nature. The breadth of Italie from Varus under the foot of them, through the ſhallowes or plaſhes of Sabatia, the Taurines, Comus, Brixia, Verona, Vicetia, Opitergium, Aquileia, Tergeſte, Pola, and Ariſtia, maketh ſeven hundred and two miles. I K L M

Chap.

A

Chap. xx.

❧ *Of the Alpes and Alpine nations.*

MAny nations inhabit the Alpes, but thoſe of ſpeciall name from Pola to the tract of Tergeſtis, are theſe, the Secuſſes, Subocrines, Catili, Menocaleni: and neere to the Carnians thoſe who in times paſt were called Tauriſci, but now Norici. Vpon theſe there doe confine the Rhetians and Vindelici, all devided into many States. Men thinke that the Rheti are the Tuſcanes progenie, driven out by the Gaules, with their leader *Rhætus*. But leaving theſe Rhœtians, turning our breaſt and viſage to Italie, wee meet with the Euganean nations of the Alpes,
B who enjoied the libertie and franchiſes of the Latines, and whoſe townes *Cato* reckoneth to the number of foure and thirtie. Of them, the Triumpilines, both people and lands were ſold. After them the Camuni and many ſuch were annexed to the next townеſhips, and did ſervice as homagers to them. The Lepontions and the Salaſſians, the ſame *Cato* thinketh to be of the Tauricke race. But all others in manner ſuppoſe verily that the Lepontians were a reſidue left behind of *Hercules* his train and companie; grounding upon the interpretation of the Greek name, as having their bodies ſeaged with the Alpine ſnowes as they paſſed through: that the Graij likewiſe were of the ſame retinue, planted in the very paſſage, and inhabiting the Alpes Graiæ: alſo that the Euganei were nobleſt of birth, wherupon they took their name. The head cittie of them
C is Stonos. Of thoſe Rhœtians the Vennonetes and Sarunetes, inhabite neere the heads of the river Rhenus. And of the Lepontians, thoſe who are called Viberi, dwell by the ſpring of Rhodanus, in the ſame quarter of the Alpes. There be alſo inhabitants within the Alpes, endowed with the libertie of Latium, namely, the Octodurenſes, and their neighbor borderers the Centrones, as alſo the Cottian States. The Caturiges, and thoſe from them deſcended, to wit, the Vagienni, Ligures, and ſuch as be called the Mountainers: and many kinds of the Capillati, confining upon the Ligurian ſea. It ſeemeth not amiſſe in this place to ſet downe an inſcription out of a triumphant Trophee erected in the Alpes, which runneth in this forme: *Vnto the Emperour* Cæſar *ſonne of* Auguſtus *of famous memorie, Arch-biſhop, Generall foure times, and inveſted in the ſacred authoritie of the Tribunes: the Senate and people of Rome. For that by his conduct and happie*
D *fortune, all the Alpine nations which reached from the upper ſea to the nether, were reduced and brought under the Empire of the people of Rome. The Alpine nations ſubdued, are theſe, Triumpilini, Camuni, Vennonetes, Iſarci, Breuni, Naunes, and Focunales. Of the Vindelici foure nations, to wit, the Conſuanetes, Virucinates, Licates, and Catenates. The Abiſontes, Suanetes, Calucones, Brixentes, and Lepontij. Viberi, Nantuates, Seduni, Veragri, Salaci, Acitavones, Medulli, Vceni, Caturiges, Brigiani, Sogiontij, Ebroduntij, Nemaloni, Edenates, Eſubiani, Veamini, Gallitæ, Triulatti, Ectini, Vergunium, Eguituri, Nementuri, Oratelli, Neruſivelauni, Suetri. Now there were not reckoned among theſe the twelve Cottian States which were not up in any hoſtilitie, ne yet thoſe which were aſsigned to the free-townes to enioy the burgeoiſie of Rome, by vertue of the law Pompeia.* Behold this is that Italie conſecrated to the gods, theſe are her nations, and theſe be the towns of her ſeverall States. And more
E than al this, that Italie, which when *L. Æmylius Paulus* and *Caius Attilius Regulus* were Conſuls, upon newes brought of a ſuddaine riſing and tumult of the Gaules, alone by it ſelfe, without any forrain aids, and even them, without any nations beyond Padus, armed 80000 horſemen and 700000 foot. In plentie of all mettall mines, it giveth place to no land whatſoever. But forbidden it is to dig any by an old act of the Senate, giving expreſſe order to make ſpare of Italie.

Chap. xxi.

❧ *Illyricum.*

THe nation of the Liburnians joineth unto Arſia, even as farre as the river Titius. A part
F thereof were the Mentores, Hymani, Encheleæ, Dudini, and thoſe whome *Callimachus* nameth Pucetiæ. Now, the whole in generall is called by one name, Illyricum. The names of the nations are few of them either worthie or eaſie to bee ſpoken. As for the judiciall court of Aſſiſes at Scordona, the Iapides and foureteene States beſides of the Liburians reſort unto. Of which it greeveth me not to name the Lacinians, Stulpinians, Burniſtes and Albonenſes. And in that Court theſe nations following have the libertie of Italians, to wit, the Alutæ and

Flanates,

Flanates, of whom the ſea or gulfe beareth the name: Lopſi, Varubarini, and the Aſſeſiates that are exempt from all tributes: alſo of Iſlands, the Fulſinates and Curiolæ. Moreover, along the borders and maritime coaſts, beyond Neſactum, theſe townes; Alvona, Flavona, Tarſatica, Senia, Lopſica, Ortopula, Vegium, Argyruntum, Cotinium, the cittie Ænona, the river Pauſinus, and Tedanium, at which Iapida doth end. The Iſlands lying in that gulfe, together with the townes, beſides thoſe townes above noted, Abſirtium, Arba, Tragurium, Iſſa, Pharos beforetime Paros, Crexa, Giſſa, Portunata. Againe, within the Continent, the Colonie Iaderon, which is from Pola 160 miles. From thence 30 miles off, the Iſland Colentum; and 18, the mouth of the river Titius. G

Chap. xxii.
℘ *Liburnia.* H

THe end of Liburnia and beginning of Dalmatia is Scordona, which frontier towne is twelve miles from the ſea, ſituate upon the ſaid river Titius. Then followeth the auncient countrey of the Tariotes, and the caſtle Tariota, the Promontorie Diomedis, or, as ſome would have it, the demie Iſland Hyllis, taking in circuit a hundred miles. Alſo Tragurium, inhabited by Romane cittizens, well knowne for the marble there: Sicum, into which place, *Claudius* late *Cæſar*, ſent the old ſouldiors: the Colonie Salona, 222 miles from Iadera. There repaire to it for law thoſe that are deſcribed into Decuries or tithings 382: to wit, Dalmatians 22, Decunum 239, Ditiones 69, and Mezæi 52, Sardiates. In this tract are Burnum, Mandetrium, and Tribulium, Caſtles of name for the battailes of the Romanes. There came alſo forth of the Iſlands the Iſſæans, Collentines, Separians, and Epetines. Beſides them, certaine Caſtles, Piguntiæ and Rataneum, and Narona a Colonie pertaining to the third Countie-Court, 72 miles from Salona, lying hard to a river of the ſame name, and 20 miles from the ſea. *M. Varro* writeth, That 89 States uſed to repaire thither for juſtice. Now, theſe only in a manner be knowne, to wit, Cerauni in 33 Tithings. Daorizi in 17, Deſtitiates in 103, Docleates in 34, Deretines in 14, Deremiſtes in 30, Dindari in 33, Glinditiones in 44, Melcomani in 24, Nareſij in 102, Scirtari in 72, Siculote in 24. And the Vardæi, who ſometime waſted and forraied Italie, in twentie decuries & no more. Beſides theſe, there held and poſſeſſed this tract Oenei, Partheni, Hemaſini, Arthitæ, and Armiſtæ. From the river Naron a hundred miles, is the Colonie Epidaurum. Townes of Romane citizens be theſe, Rhizinium, Aſcrinium, Butua, Olchinium, which beforetime was called Colchinium, built by the Colchi. The river Drilo, and the towne upon it, Scodra, inhabited by Romane cittizens, eighteene miles from the ſea. Over and beſides, many other townes of Greece, yea and ſtrong citties, out of all remembrance. For in that tract were the Labeates, Enderudines, Saſſæi, Grabæi, and thoſe who properly were called Illyrij, the Taulantij and Pyræi. The Promontorie Nymphæum in the coaſt thereof, keepeth ſtill the name: alſo Liſſum a towne of Romane cittizens, a hundred miles from Epidaurum. I K

Chap. xxiii.
℘ *Macedonie.*

FRom Liſſum is the province of Macedonie: the nations there, bee the Partheni, and on their backe ſide the Daſſaretes. Two mountaines of Candavia threeſcore and nineteene miles from Dyrrhachium. But in the borders thereof, Denda, a towne of Romane cittizens: alſo the Colonie Epidamnum, which for that unluckie names ſake was by the Romanes called Dyrrhachium. The river Aous, named of ſome Æas. Apollonia, ſometime a Colonie of the Corinthians, ſituate within the countrey, ſeven miles from the ſea, in the marches whereof is the famous Nymphæum. The borderers inhabiting thereby, are the Amantes and Buliones. But in the verie edge thereof, the towne Oricum built by the Colchi. Then beginneth Epirus, the mountaines Acroceraunia, at which wee have bounded this Sea of Europe. As for Oricum, it it from Salentinum (a Promontorie of Italie) foureſcore and five miles. L M

Chap. xxiiii.
℘ *Noricum.*

BEhind the Carni and Iapides, whereas the great river Iſter runneth, the Norici joine unto the Rhæti. Their townes be, Virunum, Celeia, Teurnia, Aguntum, Viana, Æmona, Claudia, Flavium,

A vium, Tolvenſe. Vpon the Norici there lie faſt the Lake Peiſo, the deſerts of the Boij. Howbeit, now by the Colonie of the late Emperour *Claudius* of famous memorie, Salaria and the towne Scarabantia Iulia, they be inhabited and peopled.

Chap. xxv.

Pannonia.

THence beginneth Pannonia ſo fruitfull in Maſt: wheras the hils of the Alpes, waxing more mild and civile, turning through the middeſt of Illyricum from the North to the South, ſettle lower by an eaſie deſcent both on the right hand and the left. That part which regar-
B deth the Adriaticke ſea, is called Dalmatia, and Illyricum abovenamed. Pannonia bendeth toward the North, and is bounded with the river Danubius. In it are theſe Colonies, Æmonia, Siſcia. And theſe rivers of ſpeciall name, and navigable, run into Danubius, Draus with more violence out of the Noricke Alpes; and Saus out of the Carnicke Alpes more gently, 115 miles between. As for Draus, it paſſeth through the Serretes, Serrapilles, Iaſians, and Sandrozetes: but Saus through the Colapians and Breuci. And theſe be the cheefe States of that countrie. Moreover, the Arivates, Azali, Amantes, Belgites, Catari, Corneates, Araviſci, Hercuniates, Latovici, Oſeriates, and Varciani. The mount Claudius, in the front whereof are the Scordiſci, and upon the backe, the Tauriſci. The Iſland in Saus, Metubarris, the biggeſt of all the river Iſlands. Beſides, notable goodly rivers, Calapis running into Saus neere Siſcia; where, with a double chan-
C nell it maketh the Iſland called Segeſtica. Another river Bacuntius, running likewiſe into Saus, at the towne Sirmium: where is the State of the Sirmians and Amantines. Five and fortie miles from thence Taurunum, where Saus is intermingled with Danubius. Higher above there run into it Valdanus and Vrpanus, and they ywis be no baſe and obſcure rivers.

Chap. xxvi.

Mœſia.

VNto Pannonia, joyneth the province called Mœſia, which extendeth along Danubius unto Pontus. It beginneth at the confluent above-named. In it, are the Dardanians, Celegeri,
D Triballi, Trimachi, Mœſi, Thranes, and the Scythians bordering upon Pontus. Faire rivers, out of the Dardanians countrey, Margis, Pingus, and Timachis. Out of Rhodope, Oeſſus: out of Hæmus, Vtus, Eſſamus, and Ieterus. Illyricum where it is broadeſt, taketh up 325 myles: it lyeth out in length from the river Arſia to the river Drinius, 800 myles. From Drinium to the cape Acroceraunium, 182 miles. *M. Agrippa* hath ſet downe all the whole ſea comprehending Italy and Illyricum, in the compaſſe of 1300 miles. In it are two ſmaller ſeas or gulfes bounded as I have ſaid: namely, The lower, otherwiſe called the Ionian, in the fore-part: The inner, called Adriaticum, which alſo they name The upper. In the Auſonian ſea, there be no Ilands worth the ſpeaking, but thoſe above-named. In the Ionian ſea there are but few, to wit, upon the Cala-
E brian coaſt before Brunduſium; by the object ſite whereof, the haven is made: and againſt the Apulian coaſt Diomede, famous for the tombe and monument of *Diomedes*. Another alſo of that name, called by ſome, Teutria. As for the coaſt of Illyricum, it is peſtred with more than a thouſand; ſuch is the nature of the ſea, full of ſhelves and waſhes, with narrow chanels running betweene. But before the mouthes of Timavus, there be Ilands famous for hot waters, which ebbe and flowe with the ſea. And neere unto the territorie of the Iſtrians, Ciſſa, Pullariæ, and thoſe which the Greeks name Abſyrtides, of *Medeas* brother *Abſyrtis* there ſlaine. Neere unto them, they called the Ilands Electrides, wherein is ingendred Ambre, which they call Electrum: a moſt aſſured argument to prove the vanitie of the Greeks; for that which of them they meant, was never knowne. Againſt Iader, there is Liſſa; and certaine other over-againſt the Liburnians,
F called Creteæ: and as many of the Liburnians, Celaduſæ. Againſt Surium, there is Brattia, commended for neat and goats. Iſſa, inhabited by Romane citizens, and Pharia with the towne. Next to theſe, Corcyra, ſurnamed Melæna, with the towne of the Gnidians, diſtant 22 miles aſunder: betweene which and Illyricum, is Melita; whereof (as *Callimachus* teſtifieth) the little dogs Melitæi tooke their name: and twelve miles from thence, the three Elaphites. In the Ionian ſea from Oricum 1000 miles, is Saſonis, well knowne for the Pirats harbour there.

THE

THE FOVRTH BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

❧ *From whence first arose all the fabulous lyes, and the excellent Learning of the Greekes.*

THe third Sea of Europe, beginneth at the mountaines Acroceraunia, and endeth in Hellespont: It containeth besides 19 smaller gulfes or creekes, 25 thousand myles. Within it, are Epirus, Acarnania, Ætolia, Phocis, Locris, Achaia, Messania, Laconia, Argolis, Megaris, Attica, Bœotia. And againe from another sea the same Phocis and Locris, Doris, Phthiotis, Thessalia, Magnesia, Macedonia, Thracia. All the fabulous veine, and learning of Greece, proceeded out of this quarter. And therefore we will therein stay somewhat the longer. The countrey Epirus, generally so called, beginneth at the mountaines Acroceraunia. In it, are first the Chaones, of whome Chaonia taketh the name: then the Thesprotians, and Antigonenses: the place Aornus, and the aire arising out of it so noysome and pestiferous for birds. The Cestines, and Perrhœbians with their mountaine Pindus; the Cassiopæi, the Dryopes, Selli, Hellopes, and Molossi, among whome is the temple of Iupiter Dodonæus, *so famous for the Oracle there: the mountaine Tomarus, renowmed by* Theopompus *for the hundred fountaines about the foot thereof.*

Chap. 1.

❧ *Epirus.*

EPirus it selfe reaching to Magnesia and Macedonie, hath behind it the Dassaretians above-named, a free nation; but anon the savage people of the Dardanians. On the left side of the Dardanians, the Trebellians and nations of Mœsia lye raunged: afront there joine vnto them, the Medi and Denthelates; upon whome the Thracians border, who reach as farre as to Pontus. Thus environed it is and defenced round, partly with the high hill Rhodope, and anon also with Hæmus. In the utmost coast of Epirus among the Acroceraunia, is the castle Chimæra, under which is the spring of the kings water. The townes are, Mæandria and Cestria: the river of Thesprotia, Thyamis: the colonie Buthrotium: and the gulfe of Ambracia, above all others most famous, receiving at his mouth the wide sea; 39 miles in length, and 15 in breadth. Into it runnneth the river Acheron, flowing out of Acherusia, a lake of Thesprotia 36 myles from thence: and for the bridge over it 1000 foot long, admirable to those that admire & wonder at all things of their owne. In the very gulfe is the towne Ambracia. The rivers of the Molossians, Aphas and Arachtus. The cittie Anactoria, and the lake Pandosia. The townes of Acarnania, called beforetime Curetus, bee Heraclea and Echinus: and in the very entrance and mouth thereof, Actium a Colonie of *Augustus*, with the goodly temple of *Apollo*, and the free citie Nicopolis. When yee are gone out of the Ambracian gulfe into the Ionian sea, yee meet with the Leucadian sea coast, and the Promontorie of Leucate. Then the creeke, and Leucadia it selfe, a demie Iland, sometime called Neritis, but by the labour of the inhabitants thereby, cut quite from the Continent, but annexed to it againe by meanes of the winds blowing together heapes of

A of ſand, which place is called Dioryctus, and is in length almoſt halfe a myle. A towne in it there is called Leucas, ſometime Neritum. Then the cities of the Acarnanians, Halyzea, Stratos, Argos ſurnamed Amphilochicum. The river Achelous running out of Pindus, and dividing Acarnania from Ætolia, and by continuall bringing in of earth, annexing the Iſland Artemita to the firme and maine land.

Chap. ii.

Ætolia.

B THe Ætolian nations, be the Athamanes, Tymphei, Ephiri, Ænienſes, Perrhœbi, Dolopes, Maraces and Atraces, from whom the river Atrax falleth into the Ionian ſea. The towne Calydon in Ætolia is ſeven miles and an halfe from the ſea, neer to the river Euenus. Then followeth Macynia and Molychria, behind which Chalcis ſtandeth, and the mountaine Taphiaſſus. But in the very edge & borders thereof, the Promontorie Antirrhium, where is the mouth of the Corinthian gulfe, not a mile broad where it runneth in, and devideth the Ætolians from Peloponneſus. The Promontorie that ſhooteth out againſt it, is named Rhion: but upon that Corinthian gulfe are the townes of Ætolia, Naupactum and Pylene: but in the midland parts, Pleucon, Halyſarna. The Mountaines of name: in Dodone, Tomarus: in Ambracia, Grania: in Acarnania, Aracynthus: in Ætolia, Acanthon, Panætolium and Macinium.

C

Chap. iii.

Locri.

NExt to the Ætolians are the Locri, ſurnamed Ozolæ, free States and exempt: the towne Oeanthe: the haven of *Apollo Phæſtius*: the creeke Criſſæus. Within-forth are theſe towns Argyna, Eupalia, Phæſtum, and Calamiſſus. Beyond them are Cirrhæi, the plaines of Phocis, the towne Cirrha, the haven Chalæon: from which, ſeven miles within the land, is the free cittie Delphi, under the hill Pernaſſus, the moſt famous place upon earth for the Oracle of *Apollo*. The fountaine Caſtalius, the river Cephiſſus, running before Delphos, which ariſeth in a cittie, ſometime called Lilœa. Moreover, the towne Criſſa, and together with the Bulenſes, Anti-
D cyra, Naulochum, Pyrrha, Amphiſſa an exempt State, Trichone, Tritea, Ambryſus, the region Drymæa, named Daulis. Then in the inmoſt nouke of the creeke, the very canton and angle of Bœotia is waſhed by the ſea, with theſe townes Siphæ and Thebæ, which are ſurnamed Corſicæ, neere to Helicon. The third towne of Bœotia from this ſea is Pagæ, from whence proceedeth and beareth forth the necke or cape of Peloponneſus.

Chap. iiii.

Peloponneſus.

E PEloponneſus, called beforetime Apia and Pelaſgia, is a demie Iſland, worthie to come behind no other land for excellencie and name; lying betweene two ſeas, Ægeum and Ionium: like unto the leafe of a plaine tree, in regard of the indented creekes and cornered nookes thereof: it beareth a circuit of 563 myles, according to *Iſidorus*. The ſame, if you compriſe the creekes and gulfes, addeth almoſt as much more. The ſtreight where it beginneth to paſſe on and goe forward, is called Iſthmos. In which place the ſeas abovenamed guſhing and breaking from diverſe waies, to wit, from the North and the Eaſt, doe devour all the bredth of it there: untill by the contrarie running in of ſo great ſeas, the ſides on both hands being eaten away, and leaving a ſpace of land betweene, five miles over, Hellas with a narrow neck doth meet with Peloponneſus. The one ſide thereof is called the Corinthian gulfe, the other, the Saronian. Lecheum of the one hand, and Cenchreæ of the other, do bound out and limit the ſaid
F ſtreight: where the ſhips are to fetch a great compaſſe about with ſome daunger, ſuch veſſels I meane as for their bigneſſe cannot be conveighed over upon wains. For which cauſe, *Demetrius* the king, *Cæſar* the Dictator, prince *Caius*, and *Domitius Nero*, aſſaied to cut through the narrow foreland, and make a channell navigable with eaſe: but the attempt and enterpriſe was unhappie, as appeared by the iſſue and end of them all. In the middeſt of this narrow ſtreight which wee

have called Isthmos, the Colonie Corinthus, beforetime called Ephyra, situate hard unto a little hill, is inhabited, some threescore stadia from both sea sides: which from the top of the high hill and castle there, which is named Acrocorinthus, wherein is the fountain Pirene, hath a prospect into both those contrarie seas. At this Corinthian gulfe there is a passage or cut by sea from Leucas to Patræ of 87 miles. Patræ a Colonie, built upon the promontorie of Peloponnesus, that shooteth fartheſt into the sea, overagainst Ætolia and the river Evenus, of lesse distance as hath been said, than five myes, in the very gullet and entrance, do send out the Corinthian gulfe 85 myles in length, even as farre as Isthmos. G

Chap. V.

Achaia. H

ACHaia, the name of a province, beginneth at Isthmus: aforetime called it was Ægialos, because of the cities, situate so orderly upon the strand. The principall and first there is Lecheæ abovenamed, a port town of the Corinthians. Next to it Oluros, a castle of the Pellenæans. The towns, Helice, Buta, and (into which the inhabitants retired themselves, when these beforenamed were drowned in the sea) Sicyon, Ægira, Ægion and Erineos. Within the countrey was Cleone and Hysiæ. Also the haven Panhormus, & Rhium described before: from which promontorie five myles off standeth Patræ abovementioned, and the place called Pheræ. Of nine hils in Achaia, Scioessa is most knowne, also the Spring Cymothoe. Beyond Patræ is the towne Olenum, the Colonie Dymæ. Certaine faire places called Buprasium and Hirmene: and the promontorie Araxum. The creeke of Cyllene, the cape Chelonates: from whence to Cyllene is two myles. The castle Phlius. The tract also by *Homer* named Arethyrea, and afterwards Asophis. Then the countrey of the Elians, who before were called Epei. As for Elis the cittie it selfe, it is up higher in the midland parts, twelve myles from Pylos. Within it standeth the chappell of *Iupiter Olympius*, which for the fame of the games there, containeth the Greekes and Chaldeans account of yeares. Moreover, the towne sometime of the Pisæans, before which the river Alpheus runneth. But in the borders and coast thereof the promontorie Ichthys. Vpon the river Alpheus, there is passage by water in barges to the townes Aulos and Leprion. The promontorie Platanestus. All these lie Westward. But toward the South, the arme of the sea called Cyparissius and the cittie Cyparissa, 72 miles in circuit. The townes upon it, Pylos, Methone, a place and forrest called Delos: the promontorie Acritas: the creeke Asinæus of the towne Asinum, and Coronæus of Corone. And these are limitted with Tænarus the promontorie. There also is the region Messenia with 22 mountaines. The river Paomisus. But within, Messene it selfe, Ithome, Oechalia, Arene, Pteleon, Thryon, Dorion, Zanclum, famous townes all for many occurrents at sundrie times. The compasse of this arme of the sea is 80 myles, the cut overcrosse 30 myles. Then from Tænarus, the Laconian land pertaining to a free people, and an arme of the sea there in circuit about 206 miles, but 39 miles over. The townes Tænarum, Amiclæ. Pheræ, Leuctra, and within-forth Sparta, Theranicum: and where stood Cardamyle, Pitane, and Anthane. The place Thyrea, and Gerania. The hill Taygetus: the river Eurotas, the creeke Ægylodes, and the towne Psammathus. The gulfe Gytheates, of a towne thereby (Gythæum) from whence to the Iland Creet, there is a most direct and sure cut. All these are enclosed within the promontorie Maleum. The arme of the sea next following is called Argolicus, and is 50 miles over, and 172 miles about. The townes upon it, Boea, Epidaurus, Limera, named also Zarax. Cyphanta the haven. Rivers, Inachus, Erasinus: betweene which, standeth Argos surnamed Hippium upon the Lake Lerne, from the sea two miles, and nine miles farther Mycenæ. Also, where they say Tirynthia stood, and the place Mantinea. Hils, Artemius, Apesantus, Asterion, Parparus, and eleven others besides. Fountaines, Niobe, Amymone, Psammothe. From Scyllæum to Isthmus 177 myles. Townes, Hermione, Trœzen, Coryphasium and Argos, called of some Inachium, of others Dipsium. The haven Cænites, the creeke Saronicus, beset round about in old time with woods of oake; wherupon it had the name, for so old Greece called an oake. Within it stood the towne Epidaurum, much resorted unto for the temple of *Aesculapius*, the promontorie Spiræum, the havens Anthedon, and Bucephalus: and likewise Cenchreæ which we spake of before, being the other limit of Isthmus, together with the chappell of *Neptune*, famous for the Games there represented every five yeeres. Thus many creekes do scotch and cut Peloponnesus: thus I K L M

many

A many ſeas I ſay doe rore and daſh againſt it. For on the North ſide the Ionian ſea breaketh in: on the Weſt it is beaten upon with the Sicilian. From the South the Cretian ſea driveth againſt it: Ægeum from the Southeaſt, and Myrtoum on the Northeaſt, which beginning at the Megarian gulfe, waſheth all Attica.

Chap. VI.

☞ *Of Arcadia.*

THe midland parts thereof, Arcadia moſt of all taketh up, being every way far remote from the ſea: at the beginning it was named Drymodis, but ſoone after Pelaſgis. The townes in
B it be Pſophis, Mantinea, Stymphalum, Tegea, Antegonea, Orchomenum, Pheneum, Palatium, from whence the mount Palatium at Rome tooke the name. Megalepolis, Catina, Bocalium, Carmon, Parrhaſiæ, Thelphuſa, Melanæa, Heræa, Pile, Pellana, Agræ, Epium, Cynætha, Lepreon of Arcadia, Parthenium, Alea, Methydrium, Eneſpe, Maciſtum, Lampe, Clitorium, Cleone: betweene which townes is the tract Nemea, uſually called Berubinadia. Mountaines in Arcadia, Pholoe with a towne ſo named. Item, Hyllene, Lyceus, wherein was the chappell of *Iupiter Lycenus*, Mænalus, Artemiſius, Parthenians, Lampeus, and Nonacris: and eight beſides of baſe account. Rivers, Ladon, iſſuing out of the meeres and fennes of Pheneus, Erymanthus out of a mountaine of the ſame name, running both downe into Alpheus. The reſt of the citties to
C bee named in Achæa, Aliphiræi, Abeatæ, Pyrgenſes, Pareatæ, Paragenitiæ, Tortuni, Typanæi, Thryaſij, Trittenſes. All Achæa generally throughout, *Domitius Nero* endowed with freedome. Peloponneſus from the promontorie of Malea to the towne Lechæum upon the Corinthian gulfe, lieth in breadth 160 miles: but over croſſe from Elis to Epidaurum 125 myles: from Olympia to Argos through Arcadia 63 miles. From the ſame place to Phlius is the ſaid meaſure. And all throughout, as if Nature made recompence for the irruptions of the ſeas, it riſeth up in threeſcore and ſixteene hils.

Chap. VII.

☞ *Greece and Attica.*

D AT the ſtreights of Iſthmus beginneth Hellas, of our countreymen called Græcia. The firſt tract thereof is Attica, in old time named Acte. It reacheth unto Iſthmus on that part therof which is called Megaris of the colonie Megara, or againſt Pagæ. Theſe two towns as Peloponneſus lieth out in length, are ſeated on either hand, as it were, upon the ſhoulders of Hellas. The Pagæans, and more than ſo, the Ægoſthenienſes lie annexed to the Magarenſians, and owe ſervice to them. In the coaſt thereof is the haven Schœnus. Townes, Sidus, Cremyon, Scironia rockes for three myles long, Geranea, Megara, and Eleuſin. There were beſides Oenoa and Probalinthus, which now are not to be ſeene, 52 myles from Iſthmus. Pyræus and Phalera, two havens joined to Athens by a wall, within the land five myles. A free cittie this is, and nee-
E deth no more any mans praiſe: ſo noble and famous it is otherwiſe, beyond all meaſure. In Attica be theſe fountaines, Cephiſſia, Larine, Callirrhoe, and Enneacreunos. Mountaines, Brileſſus, Megialcus, Icarius, Hymettus, and Lyrabetus: alſo the river Iliſſos. From Pyræum 42 miles off, is the promontorie Sunium, likewiſe the promontorie Doriſcum. Alſo, Potamos and Brauron, townes in time paſt. The village Rhamnus, and the place Marathon, the plain Thriaſius, the town Melita and Oropus, in the confines or marches of Bœotia. Vnto which belong Anthedon, Oncheſtos, Theſpræ a free towne Lebadea: and Thebes ſurnamed Bœotia, not inferior in fame and renowne to Athens, as being the native countrey, and as men would have it, of two gods, *Liber* and *Hercules*. Alſo, they attribute the birth of the Muſes in the wood Helicon. To this Thebes is aſſigned the forreſt Cithæron, and the river Iſmenus. Moreover, Fountaines in Bœotia, Oedipodium, Pſammate, Dirce, Epigranea, Arethuſa, Hippocrene, Aganippe, and Gargaphiæ. Mount-
F taines over and beſides the forenamed, Mycaleſſus, Adyliſus, Acontius. The reſt of the townes betweene Megara and Thebes, Eleutheræ, Haliartus, Plateæ, Pheræ, Aſpledon, Hyle, Thisbe, Erythræ, Gliſſas, and Copæ. Neere to the river Cephiſſus, Lamia and Anichia: Medeon, Phligone, Grephis, Coronæa, Chæronia. But in the outward borders, beneath Thebes, Ocale, Elæon, Scolos, Scœnos, Peteon, Hyrie, Mycaleſſus, Hyreſeon, Pteleon, Olyros, Tanagia, a free State; and in

the very mouth of Euripus, which the Iſland Eubœa maketh by the oppoſite ſite thereof, Aulis, ſo renowned for the large haven that it hath. The Bœotians in old time were named Hyantes. The Locrians alſo are named withall Epicnemidij, in times paſt Letegetes, through whome the river Cephiſſus runneth into the ſea. Townes, Opus (whereof commeth the gulfe Opuntinus) and Cynus. Vpon the ſea-coaſt of Phocis, one and no more, to wit Daphnus. Within-forth among the Locrians, Elatea, and upon the bank of Cephiſſus (as we have ſaid) Lilæa: and toward Delphos, Cnenius and Hiampolis. Againe, the marches of Locri, wherein ſtand Larymna and Thronium, neere unto which the river Boagrius falleth into the ſea. Townes, Narycion, Alope, Scarphia. After this, the vale called of the people there dwelling, Maliacus Sinus, wherein bee theſe townes, Halcyone, Econia, and Phalara. Then Doris, wherein are Sperchios, Erineon, Boion, Pindus, Cytinum. On the backe ſide of Doris is the mountaine Oeta. Then followeth Æmonia that ſo often hath changed name: For one and the ſame hath beene called Pelaſgicum, Argos, and Hellas, Theſſalia alſo and Dryopis, and evermore tooke name of the kings. In it was borne a king called *Græcus*, of whom Greece bare the name: there alſo was *Hellen* borne, from whence came the Hellenes. Theſe being but one people, *Homer* hath given three names unto, that is to ſay, Myrmidones, Hellenes, and Achæi. Of theſe, they be called Phthiotæ who inhabit Doris. Their townes bee Echinus, in the very gullet and entrance of the river Sperchius: and the ſtreights of Thermopylæ, ſo named by reaſon of the waters: and foure miles from thence Heraclea, was called Trachin. There is the hill Callidromus: and the famous townes, Hellas, Halos, Lamia, Phthia, and Arne.

Chap. viii.

Theſſalie.

MOreover in Theſſalie, Orchomenus, called beforetime Minyeus; and the town Almon, or after ſome Elmon; Atrax, Pelinna, and the fountaine Hyperia. Townes, Pheræ, behind which Pierius ſtretcheth forth to Macedonie: Lariſſa, Gomphi, Thebes of Theſſalie, the wood Pteleon, and the creeke Pagaſicus. The towne Pagaſa, the ſame named afterwards Demetrias; Tricca, the Phatſalian plaines, with a free citie; Cranon, and Iletia. Mountaines of Phthiotis, Nymphæus, moſt faire and ſightly for the naturall arbors and garden-workes there: Buzigæus, Donaceſa, Bermius, Daphiſſa, Chimerion, Athamas, Stephane. In Theſſaly there be 34, whereof the moſt famous are, Cerceti, Olympus, Pierus, Oſſa: juſt againſt which, is Pindus and Othrys, the ſeat and habitation of the Lapithæ; and thoſe lie toward the Weſt: but Eaſtward, Pelios, all of them bending in manner of a theatre: and before them ſtand raunged wedgewiſe, 72 cities. Rivers of Theſſalie, Apidanus, Phœnix, Enipeus, Onochomus, Pamiſus: the fountaine Meſſeis, the poole Bœbeis: and above all the reſt, the moſt famous river Peneus, which ariſing neere Gomphi, runneth for 500 ſtadia in a woodie dale between Oſſa and Olympus, and haſſe that way is navigable. In this courſe of his, are the places called Tempe, 5 miles in length, and almoſt an acre and a halfe broad, where on both hands the hils ariſe by a gentle aſcent above the reach of mans ſight. Within-forth glideth Peneus by, in a freſh green grove, clear as cryſtall glaſſe over the gravelly ſtones; pleaſant to behold for the graſſe upon the bankes, and reſounding againe with the melodious conſent of the birds. It taketh in the river Eurotas, but entertaineth him not, but as he floweth over the top of him like oyle, as *Homer* ſaith: within a while after that hee hath carried him a ſmall way, letteth him goe againe and rejecteth him, as refuſing to mingle with his owne ſilver ſtreames, thoſe pœnall and curſed waters engendred for the infernall Furies of hell.

Chap. ix.

Magneſia.

TO Theſſaly, Magneſia is annexed: the fountaine there, is Libethra. The townes, Iolchos, Hirmenium, Pyrrha, Methone, Olizon. The promontorie Sepias. Townes moreover, Caſtana, Sphalatra, and the promontorie Ænantium. Townes beſides, Meliboea, Rhiſus, Erymne. The mouth of Peneus. Townes, Homolium, Orthe, Theſpiæ, Phalanna, Thaumacie, Gyrton, Cranon, Acarne, Dorion, Melitæa, Phylace, Potinæ. The length of Epirus, Achaia, Attica, and Theſſalie, lying ſtreight out, is by report 480 miles, the breadth 287.

Chap.

A

Chap. X.

Of *Macedonie.*

MAcedonie, so called afterwards (for before time it was named Emathia) is a kingdome consisting of 150 severall States, renowmed for two kings above the rest, and ennobled sometime for the Monarchie and Empire of the world. This countrey lying farre in behind Magnesia and Thessalie toward the nations of Epirus Westward, is much troubled and infested with the Dardanians. The North parts thereof, are defended by Pæonia and Pelagonia, against the Triballi. The townes be these, Aege, wherein the manner was to interre their kings: B Berœa, and Æginium, in that quarter which of the Wood is called Pieria. In the outward borders, Heraclea, and the river Apilas: more townes, Phina, and Oloros: the river Haliacmon. Within-forth, are the Haloritæ, the Vallei, Phylacei, Cyrrhestæ, Tyrissæi: Pella the Colonie: the town Stobi of Romane citizens. Anon, Antigonia, Europus upon the river Axius, and another of the same name through which Rhœdias runneth: Heordeæ, Scydra, Mieza, Gordiniæ. Soone after in the borders, Ichnæ, and the river Axius. To this bound the Dardani: Treres, and Pieres border upon Macedonie. From this river, are the nations of Pæonia, Parorei, Heordenses, Almopij, Pelagones, and Mygdones. The mountaines Rhodope, Scopius, and Orbelus. The rest is a plaine countrey, wherein Nature seemeth to set out her riches; in the lap wherof are the C Arethusij, Antiochienses, Idomenenses, Doberienses, Trienses, Allantenses, Andaristenses, Moryllij, Garesci, Lyncestæ, Othrionei, and the free States of the Amantines and Orestæ. Colonies, Bulledensis and Diensis. Xilopolitæ, Scotussæi free; Heraclea, Sintica, Timphei and Coronæi. In the coast of the Macedonian sea, the towne Calastra, and within-forth, Phileros, and Lete: and in the middle bending of the coast, Thessalonica, of free estate and condition. To it from Dyrrachium, it is 114 myles, Thermæ. Vpon the gulfe Thermaicus, be these townes, Dicæa, Pydna, Derrha, Scione: the promontorie Canastræum. Townes, Pallene, Pherga. In which region these mountaines, Hypsizorus, Epitus, Alchione, Leuomne. Townes, Nissos, Brygion, Eleon, Mendæ, and in the Isthmos of Pallene, the colonie sometime called Potidæa, and now Cassandria, Anthemus, Holophyxus the creeke, and Mecyberna. Townes, Phiscella, D Ampelos, Torone, and Singos: the Frith (where *Xerxes* king of the Persians cut the hill Athos from the Continent) in length a mile and a halfe. The mountaine it selfe shooteth out from the plaine into the sea, 75 miles. The compasse of the foot thereof, taketh 150 miles. A towne there was in the pitch of it, Acroton. Now there be Vranopolis, Palæotrium, Thyssus, Cleone, Apollonia, the inhabitants whereof be named Macrobij. The towne Cassera, and a second gullet or creeke of the Isthmus, Acanthus, Stagira, Sitone, Heraclea, and the region lying under Mygdonia, wherein are seated farre out from the sea, Apollonia and Arethusa. Againe in the coast, Posidium, and a creeke with the towne Cermorus: Amphipolis a free state, and the people Bisaltæ. Then, the river Strymon, which is the bound of Macedonie, which springeth in Hæmus: of which, this is worthie to be remembred, that it runneth into seven lakes before it keepeth a E direct course. This is that Macedonie, which sometime conquered the dominion over all the earth: this over-ran Asia, Armenia, Iberia, Albania, Cappadocia, Syria, and Ægypt; yea and passed over Taurus and Caucasus: this ruled over the Bactrians, Medians, and Persians, and possessed all the East: this having the conquest of India, raunged after the tracts of Father *Liber* and *Hercules*. This is the very same Macedonie, of which in one day *Paulus Æmylius* our Generall, sacked and sold 72 cities. See the difference of Fortune in two men.

Chap. XI.

Of *Thracia.*

F NOw followeth Thracia, among the most valiant nations of Europe, divided into 52 regiments of souldiers. Of those States in it, the Densseletes and Medi, whome it greeves me not to name, doe inhabite neare to the river Strymon on the right side, as farre as to the Bisaltæ above-named: on the left, the Digeri, and many townes of the Bessi, even to the river Nestus, which environeth the botome of the hill Pangæus, betweene the Eleti, Diobesi, and Carbilesi, and so forward to the Bryfæ and Capæi. Odomanta a towne of the Odrysians, send-

deth out the river Hebrus to the neighbour-borderers, the Carbiletes, Pyrogeris, Drugeri, Cænicks, Hypſalts, Beni, Corpilli, Botiæi, and Edons. In the ſame tract the Selletæ, Priautæ, Diloncæ, Thyni, Celetæ, the greater under Hæmus, the leſſe under Rhodope: betweene whome, runneth the river Hebrus. The towne ſituate beneath Rhodope, was before-time named Poneropolis; ſoone after by the founder, Philippopolis; but now of the ſite thereof Trimontium. The aſcent of Hæmus up to the top, taketh ſixe miles: the backe ſide and hanging thereof downe to Iſter, the Mœſians, Getes, Aoti, Gaudæ, and Clariæ, and under them the Arræi, Sarmata whom they call Areatæ, and Scythians: and about the ſea coaſt of Pontus, the Moriſenes and Sithonians, from whome the Poët *Orpheus* deſcended, doe inhabite. Thus Iſter boundeth it on the North: in the Eaſt, Pontus and Propontus: Southward, the ſea Ægæum, in the coaſt whereof from Strymon, ſtand Apollonia, Oeſtima, Neapolis, and Polis. Within-forth, the Colonie of *Philip*, and 325 myles from Dyrrhachium, Scotuſa, Topiris, and the mouth of the river Neſtus. The hill Pangæus, Heraclea, Olynthos Abdera a free citie, the meere and nation of the Biſons. There, ſtood the towne Tinda, terrible for the horſes of *Diomedes* that ſtabled there. Now at this day, Diceæ, Iſmaron, the place Parthenion, Phaleſina, Maronea called Ortagurea before-time. The mountaine Serrium and Zonæ: then, the plaine Doriſcus able to receive * 10000 men: for ſo *Xerxes* tooke a juſt account of his armie and numbred it. The mouth of Hebrus: the haven of Stentor: the free towne Ænea, togither with the tombe of *Polydorus*, the region ſometime of the Cicones. From Doriſcus, the coaſt bendeth crookedly to Macron-Tichos, for 122 myles. About which place the river Melas, whereof the creeke beareth name. Townes, Cypſella, Biſanthe, and that which is called Macron-Tichos, what way as ſtretching forth the walles along from Propontis to the Creeke Melanes betweene two ſeas, it excludeth Cherſoneſus as it runneth out. For, Thracia of one ſide beginning at the ſea coaſt of Pontus, where the river Iſter is diſcharged and ſwallowed up, hath in that quarter paſſing faire and beautifull cities, to wit, Iſtropolis of the Mileſians, Tomi, and Calatis which before was called Acernetis. It had ſometime Heraclea and Bizon, which ſunke and was loſt in a gaping chinke of the earth; but now inſtead thereof Dionyſopolis, called before Crunos. The river Ziras runneth hard by it. All that tract, the Scythians named beſides Aroteres, poſſeſſed. Their townes were, Aphrodiſius, Libiſtos, Zigere, Borcobe, Eumenia, Parthenopolis, Gerania, where it is reported that the nation of the Pygmeans kept, whome the barbarous people call Catizi, and they are of beliefe that they were chaſed away and put to flight by cranes. In the edge thereof next to Dionyſopolis, there is Odeſſus of the Mileſians, the river Pomiſcus, the towne Tetranaulochos: the mountaine Hæmus bearing forth with a huge top into Pontus, had in the pitch thereof the towne Ariſtæum. Now in the coaſt is Meſembria and Anchialum, where Meſſa was. The region Aſtice. There was the towne Anthium, now there is Apollonia. The rivers Paniſſa, Rira, Tearus, Oroſines. Townes, Thynnias, Almedeſſos, Develton with the poole which now is called Deultum, belonging to the old ſouldiers. Phinopolis, neare unto which is Boſphorus. From the mouth of Iſter to the entrance of Pontus, ſome have made it 555 miles. *Agrippa* hath ſet to 40 miles more. And from thence to the wall above-named 150: and ſo from it to Cherſoneſus 126. But neere to Boſphorus is the arme of the ſea Gaſthenes. The haven ſurnamed of old men, and another likewiſe of women. The promontorie Chryſoceras, wherupon ſtandeth the town Bizantium of free eſtate, called beforetime Lygos. From Dyrrachium it is 711 miles. Thus much lyeth out the maine in length betweene the Adriaticke ſea and Propontis. Rivers, Bathynias, Pydaras, or Atyras. Towns, Selymbria, Perinthus, annexed to the Continent 200 paſes broad. Within-forth, Byzia, the caſtle of Thracian kings, hated of Swallowes, upon the horrible and curſed fact of *Tereus*. The region Camica: the colonie Flaviopolus, where beforetime the towne was called Zela. And 50 miles from Byria the colonie Apros, which is from Philippi 188 myles. But in the borders, the river Erginus, where was the towne Gonos. And there you leave the citie Lyſimachia, alſo now in Cherſoneſus. For another land paſſage or Iſthmus there is of like ſtreigtneſſe, all one in name and of equall breadth with that of Corinth. Likewiſe on both ſides two cities doe beautifie and ſet out the ſtronds, which they take up not unlike to the other, to wit, Pactiæ from Propontis, and Cardia from the gulfe Melane: as for this, it taketh the name of the forme and proportion of the place made like a hart: and both, afterwards, were encloſed within Lyſimachia 3 myles from the * long walls aboveſaid. Cherſoneſus from Propontis ſide, had Tiriſtaſis and Crithotes, alſo Ciſſa faſt upon the river Ægos: now it hath from the colonie Apros 32 miles Reſiſtos, over-

G H I K L M

* Or, 100000.

Macron-Tichos.

againſt

A againſt the colonie Pariana. And Helleſpontus, dividing Europe from Aſia, ſeven ſtadia aſunder (as we have ſaid) hath foure citties there oppoſite one againſt another, to wit, in Europe, Calippolis and Seſtos; in Aſia, Lampſacum and Abydos. Then, is the promontorie of Cherſoneſus Maſtiſia, juſt contrarie to Sigeum, in the crooked front whereof is Cynoſſema: for ſo is *Hecubaes* tombe named, the very rode of the Athenians navie. The towne and chappell of *Proteſilaus*: and in the very utmoſt forefront of Cherroneſus, which is called Æolium, the towne Elæus. After it, as a man goeth to the gulfe Melane, the havens Cælos, Panhormus, and the abovenamed Cardia. The third ſea of Europe, is in this manner bounded and limited. Mountaines of Thracia over and above thoſe afore rehearſed, Edonus, Gigemorus, Meritus, and Melamphyllon. Rivers falling into Hebrus, be Bargus, and Suemus. The length of Macedonie,
B Thracia, and Helleſpontus, is ſet downe before. Some make it ſeven hundred and twentie miles. The breadth is three hundred and eightie miles. The ſea Ægeum tooke that name of a rocke, betweene Tenedos and Chios, more truely than of an Iland named Aex, reſembling a goat, and therfore ſo called of the Greekes; which all at once appeareth to riſe out of the mids of the ſea. The ſea-men that ſaile from out of Achaia to Andros, diſcover it on the right hand, and to them it preſageth ſome dreadfull and miſchievous accident. Part of the Ægæan ſea is laid to the Myrtoum, and ſo called it is of a little Iſland, which ſheweth it ſelfe to them that ſet ſaile from Gereſtus to Macedonie, not farre from Charyſtos in Eubœa. The Romanes comprehend all theſe ſeas in two names: namely, Macedonicum, all that which toucheth Macedonia and Thracia: and Græcienſum where it beateth upon Greece. As for the Greekes,
C they divide even the Ionian ſea into Siculum and Creticum, of the Iſlands. Alſo, Icarius they call that betweene Samos and Mycione. All the other names are given by gulfes and creeks, whereof we have ſpoken. And thus much verily as touching the ſeas and nations contained in this manner within the third ſection or gulfe of Europe.

Chap. XII.

The Iſlands betweene thoſe lands, among which, Creta, Eubœa, Cyclades, and Sporades: alſo of Helleſpont, Pontus, Mæotis, Dacia, Sarmatia and Scythia.

D Iſlands overagainſt Threſprotia, Corcyra: 12 miles from Buthrotus, and the ſame from the cliffes Acroceraunia 50 myles, with a cittie of the ſame name, Corcyra of free condition, alſo the towne Caſſiope, and the temple of *Iupiter Caſsiopæus*: it lieth out in length 97 miles. *Homer* called it Scheria and Phæacia: *Callimachus* alſo, Drepane. About it are ſome others: but bending toward Italie, Thoronos: and toward Leucadia the two Paxæ, five miles divided from Corcyra. And not farre from them before Corcyra, Ericuſa, Marate, Elaphuſa, Malthace, Trachiæ, Pytionia, Ptychia, Tarachie. And from Pholachrum a promontorie of Corcyra, the rocke into which there goeth a tale, that the ſhip of *Vliſſes* was turned, for the reſemblance it hath of ſuch a thing. Before Leucadia, Sybota. But between it and Achaia there be very many: of which Teleboides the ſame that Taphiæ: but of the inhabitants before Leucadia, they be called Taphi-
E as, Oxie, and Prinoeſſa: and before Ætolia, the Echinades, Ægialia, Cotonis, Thyatira, Geoaris, Dionyſia, Cyrnus, Chalcis, Pinara and Myſtus. Before them in the deepe ſea, Cephalenia and Zacynthus, both free States: Ithaca, Dulichium, Same, Crocylea, and Paxos. Cephalenia ſometime called Melæna, is 11 myles off, and 44 myles about. As for Same, it was deſtroied by the Romanes: howbeit, ſtill it hath three townes: betweene it and Achaia is Zacynthus with a town, a ſtately Iſland, and paſſing fertile. In times paſt called it was Hyrie, and is 22 miles diſtant from the South coaſt of Cephalenia. The famous hill Elatus is there. The Iſland it ſelfe is in circuit 25 miles. Twelve miles from it is Ithaca, wherein ſtandeth the mountaine Neritus. And in the whole it taketh up the compaſſe of 25 miles. From it twelve miles off is Araxum a cape of Peloponne-
F ſus. Before this Iſland in the maine ſea there appeare Aſteris and Prote. Before Zacynthus 35 miles full Eaſt, are the two Strophades, called by others Plotæ: and before Cephalenia, Letoia. Before Pylos three Sphagiæ, and as many before Meſſene, called Oenuſſæ. In the gulfe Aſinæus three Thyrides: in the Laconian gulfe, Teganuſa, Cothon, Cythera with the towne, named beforetime Porphyris. This lieth five miles from the promontorie Malea, daungerous for ſhips to come about it, by reaſon of the ſtreights there. In the Argolick ſea are Pityuſa, Irine and Ephyre:

and

and againſt the territorie Hermonium, Typarenus, Epiropia, Colonis, Ariſtera: over againſt G
Trœzenium Calauria, halfe a mile from Plateæ: alſo, Belbina, Lacia and Baucidias. Againſt Epidaurus, Cecryphalos, and Pytioneſos, ſixe miles from the Continent. Next to it is Ægina a free ſtate, 17 miles off, and for 20 miles they ſaile by it. The ſame is diſtant from Pyræum the port of the Athenians, 12 miles, and beforetime was uſually called Oenone. Againſt the promontorie Spiræum, there lie oppoſite Eleuſa, Dendros, two Craugiæ, two Cæciæ, Selachuſa, Cenchreis and Aſpis. Alſo in the Megarian gulfe, there be foure Methurides. As for Ægilia, it is 15 miles from Cythera, and the ſame is from Phalaſarna a towne in Creet 25 miles. And Creet it ſelfe, lying of one ſide to the South, and the other to the North, ſtretcheth forth in length Eaſt and Weſt; a famous and noble Iſland for a hundred citties in it. *Doſiades* ſaith it tooke that name of the nymph *Creta* daughter of *Heſperis*: but according to *Anaximander*, of a H
king of the Curetes. *Philiſtides*, *Mallotes*, *Crates*, have thought it was called firſt Æria, and afterwards Curetis, and ſome have thought it was named Macaros for the bleſſed temperature of the aire. In breadth it exceedeth in no place 50 miles, and in the middle part broadeſt it is: but in length it is full 270 miles: in circuit 589 miles: and winding it ſelfe into the Creticke ſea, ſo called of it, where it ſtretcheth out fartheſt Eaſtward, it putteth forth of it the promontorie Sammonium juſt againſt Rhodos, and Weſtward Criu-Metopon, toward Cyrenæ. The principall townes of marke, be Phalaſarnæ, Elæa, Cyſamum, Pergamum, Cydon, Minoum, Apteron, Pantomatrium, Amphimalla, Rhythymna, Panhormum, Cyteum, Apollonia, Matium, Heraclea, Miletos, Ampelos, Hiera-pytna, Lebena, Hierapolis. And in the midland parts, Cortyna, Phæſtum. Gnoſſus, Potyrrhenium, Myrina, Lycaſtus, Rhamnus, Lyctus, Dium, Aſum, Pyloros, Rhy- I
tion, Clatos, Pharæ. Holopyxos, Laſos, Eleuthernæ, Therapne, Marathuſa, Mytinos. And other townes about the number of 60, ſtand yet upon record. The hils bee Cadiſcus, Idæus, Dictæus, and Morycus. The Iſle it ſelfe, from the promontorie in it called Criu-Metopon, as *Agrippa* reporteth, is diſtant from Phycus, a promontorie of the Cyrene 225 miles. Likewiſe, from Capeſcum point, it is from Malea in Peloponneſus 80 miles. From the Iſland Carpathus, which lieth Weſtward from the cape Sammonia, 60 miles. This Iſland aforeſaid lieth betweene it and Rhodos. The reſt about it be theſe: before Peloponneſus two Coricæ, and as many Mylæ: and on the North ſide, when a man hath Creet on the right hand, there appeareth Leuce juſt againſt Cydonia, together with the two Budoræ, againſt Matium, Cia: againſt the Promontorie Itanum Oniſa and Leuce: againſt Hierapytna, Chryſa, and Caudos. In the ſame coaſt are Ophiuſſa, Bu- K
toa, and Rhanmus: and when men have fetched about and doubled the point Criu-Metopon, appeare the Iſles called Muſagores. Before the Promontorie Sammonium, Phocæ, Platiæ, Sirnides, Naulochos, Armedon and Zephyre. But in Hellas, yet ſtill in Ægeum, Lichades, Scarphia, Mareſa, Phocaria, and very many more overagainſt Attica, but townleſſe, and therfore obſcure and of no reckoning: but againſt Eleuſin, the noble Salamis, and before it Pſytalia: and from Sunium, Helene five miles off: and Ceos from thence as many, which our countreymen have named Cæa: but the Greckes Hydruſſa, cut off and diſmembred from Eubœa. In times paſt it was 500 ſtadia long: but ſoone after, foure parts almoſt, namely, thoſe that butted upon Bœotia, eaten up by the ſame ſea: ſo as now the townes remaining that it hath, be Iulis and Carthæa. For Coreſſus and Pæceſſa are periſhed & gone. From hence as *Varro* ſaith, came the fine L
linnen cloth that women uſe: yea, and Eubœa it ſelfe hath beene plucked from Bœotia, and devided with ſo little an arme running betweene, that a bridge joineth the one to the other: evident it is to the eie, and well ſeene, by reaſon of two Promontories in the South ſide, to wit, Geneſtum, bending toward Attica, and Capharens to Helleſpontus: and one upon the North ſide, to wit, Cæneus. In no part thereof doth it extend broader than 40 miles: and no where dooth it gather in narrower than 20. But in length from Attica as farre as Theſſalie, it lieth along Bœotia 150 miles: and containeth in circuit 365. From Helleſpont, on Caphareus ſide, it is 225 miles. In times paſt renowned it was for theſe citties, Pyrrha, Porthmos, Neſos, Cerinthus, Oreum, Dium, Ædepſum, Ocha, Oechalia, now Calcis, overagainſt which ſtandeth Aulis in the maine: but now, for Gereſtum, Eretria, Caryſtus, Oritanum, Artemiſium, the fountaine Arethuſa, the river M
Lelantum, the hote waters called Hellopiæ, it is of great name: but yet in more requeſt for the marble of Caryſtus. In former time it was called commonly Chalcodontis or Macris, as *Dionyſius* and *Ephorus* doe ſay: but Macra, according to *Ariſtides*: and as *Callidemus* would have it, Chalcis, for the braſſe there firſt found: and as *Menæcmus* ſaith, Abantias: and laſt of all Aſo-

pis,

A pis,as the Poets commonly name it. Without in the Myrtoum ſea, be many Iſles, but of greateſt marke be Glauconneſus and Ægilia. And neere to the promontorie Gereſtum about Delos certaine lying round together,whereupon they tooke their name Cyclades. The firſt and principall of them,Andrus with a towne,is from Gereſtum tenne miles,and from Ceum 39. *Myrſilus* ſaith it was called Cauros, and afterwards Antandros. *Callimachus* nameth it Laſia, others Nonagria,Hydruſſa and Epagris.It taketh in compaſſe 93 miles.A mile from the ſame Andros, and fifteene from Delos,lieth Tenos, with a towne fifteene miles in length: which,for the plentie of water *Ariſtotle* ſaith was called Hydruſſa,but others name it Ophiuſſa. The reſt bee theſe, Myconos with the hill Dimaſtos,fifteene miles from Delos. Scyros Syphnus,beforetime named Heropia and Acis,in circuit 28 miles about: Seriphus 12 miles,Præpeſinthus, Cythnus. And
B Delos it ſelfe,of all others moſt excellent by far,as being the middeſt of all the Cyclades, much frequented for the temple of *Apollo*, and for merchandiſe and trafficke. Which having a long time floted up and downe(as it is reported) was the onely Iſland that never felt earthquake unto the time of *M. Varro*. *Mutianus* hath recorded that it was twice ſhaken. *Ariſtotle* giveth a reaſon of the name in this ſort,becauſe it was diſcovered,and appeared on a ſuddaine. *Æglosthenes* tearmeth it Cynthia: others Ortygia,Aſteria,Lagia,Chlamydia,Cynethus,and Pyrpile,for that in it fire was found out firſt.It is but five miles about,and riſeth up by the aſcent of the hill Cinthus. Next to it is Rhene,which *Anticlides* called Celaduſſa, and *Helladius*,Artemite. Moreover, Syros,which auncient writers have written to be in circuit 20 miles,and Mutians,160. Oliaros,Paros,with a towne, 38 miles from Delos, of great name for the white marble there, which at firſt
C men called Pactia,but afterwards Minois. From it ſeven miles and an halfe is Naxus(eighteene miles from Delus) with a towne,which they called Strongyle, afterwards Dia,within a while Dionyſias of the plentifull vines, and others, Sicilie the leſſe, and Callipolis. It reacheth in circuit 75 miles,and is halfe as long againe as Paros. And thus farre verily they obſerve and note for the Cyclades: the reſt that follow,for the Sporades. And theſe they be,Helenum,Phocuſſa, Phæcaſia, Schinuſſa,Phalegandros, and ſeventeene miles from Naxos,Icaros: which gave name to the ſea,lying out as farre in length with two townes,for the third is loſt: beforetime it was called Dolichum,Macris and Ichtyoëſſa. It is ſituate Northeaſt, from Delos 50 miles: and from Samos diſtant it is 35 miles.Betweene Eubœa and Andros there is a frith 12 miles over. From it to Gereſtum is 112 miles and an halfe. And then no order forward can be kept. The reſt therefore ſhall
D be ſet downe huddle by heapes. Ios from Naxus 24 miles,venerable for the ſepulchre of *Homer*: it is in length 25 miles,and in former time called Phœnice. Odia,Letandros,Gyaros with a town, 12 miles about. It is from Aneros 62 miles. From thence to Syrnus 80 miles. Cynethuſſa,Telos, famous for coſtly ointment,and called it is by *Callimachus*, Agathuſſa. Donyſa,Pathmos in circuit 30 miles. Coraſiæ,Lebinthus, Leros,Cynara, Sycinus, which beforetime was Oencæ,Heratia,the ſame that Onus,Caſus otherwiſe Aſtrabe,Cimolus, *alias*,Echinuſſa,Delos with a towne, which *Ariſtides* nameth Byblis, *Ariſtotle* Zephyria, *Callimachus* Himallis, *Heraclides* Syphnus and Acytos. And this of all the Iſlands,is the roundeſt. After it Machia,Hyperé ſometime Patage,or after ſome Platage,now Amorgos, Potyægos. Phyle, Thera; when it firſt appeared, Calliſte it was called. From it afterwards was Theraſia plucked: and betweene thoſe twaine ſoone af-
E ter aroſe Automate, the ſame that Hiera: and Thia which in our daies appeared new out of the water neere Hiera. Ios is from Thera 25 miles. Then follow Lea, Aſcania, Anaphe, Hippuris, Hippuriſſuſa. Aſtipalæa of free eſtate,in compaſſe 88 miles: it is from Cadiſcus, a promontorie of Creta, 125 miles. From it is Platea, diſtant 60 miles. And from thence Camina, 38 miles. Then Azibnitha, Laniſe, Tragia, Pharmacuſa, Techedia, Chalcia, Calydna, in which are the townes Coos and Olymna. From which to Carpathus, that gave the name to the Carpathian ſea,is five and twentie miles: and ſo to Rhodes with a Southerne wind. From Carpathus to Caſos,ſeven miles: from Caſos to Samonium a promontorie of Crete, thirtie miles. Moreover,in the Euboike Euripe, at the firſt entrance well neere of it, are the foure Iſlands Petaliæ,and at the end thereof, Atalante,Cyclades,and Sporades: confined and encloſed on the Eaſt with the Ica-
F rian ſea-coaſts of Aſia; on the Weſt,with the Myrtoan coaſts of Attica; Northward,with the Ægæan ſea; and South,with the Creticke and Carthaginian ſeas: and take up in length two hundred myles. The gulfe Pagaſicus hath before it, Eutychia, Cicynethus, and Scyrus abovesaid: but the utmoſt of all the Cyclades and Sporades, Gerontia, Scadira, Thermeuſis, Irrheſia, Solinnia, Eudemia, Nea, which is conſecrate to *Minerva*. Athos before it hath foure, Peparethus

thus with a towne ſometime called Euonos nine miles off: Scyathus five miles: and Iulios with G
a towne 88 miles off. The ſame is from Maſtuſia in Corinthos 75 miles. And is it ſelfe in circuit
72 miles. Watered it is with the river Iliſſus. From thence to Lemnos 22 miles: and it from A-
thos 87. In compaſſe it containeth 22 miles and a halfe. Townes it hath, Hephæſtia and Myri-
na, into the market place whereof, the mountaine Athos caſteth a ſhadow in the horeſt ſeaſon
of Summer. Thaſſos a free State, is from it five miles: in times paſt called it was Æria or Æthria.
From thence, Abdera in the Continent is twentie miles: Athos ſixtie two: the Ile Samothrace
as much, which is a free priviledged State, and lieth before Hebrus. From Imbrus two and thir-
tie myles: from Lemnus two and twentie miles and a halfe: from the coaſt of Thracia eight and
twentie myles: in circuit it is 32 myles: and hath a riſing of the hill Saoces for the ſpace of ten
myles: and of all the reſt is fulleſt of havens and harboroughs. *Callimachus* calleth it by the old H
name Dardania: betweene Cherrhoneſus and Samothrace is Halomeſus, about fifteene myles
from either of them: beyond lyeth Gethrone, Lamponia, Alopeconneſus not farre from Cœ-
los, an haven of Cherrhoneſus: and ſome other of no name or regard. In this ſea let us rehearſe
alſo the deſart and diſpeopled Ilands, ſuch as we can find out names for, to wit, Deſticos, Larnos,
Cyſſicos, Carbruſa, Celathuſa, Scylla, Draconon, Arconeſus, Diethuſa, Scapos, Capheris, Me-
ſate, Æantion, Phateruneſos, Pateria, Calete, Neriphus and Polendus.

The fourth of thoſe great ſeas in Europe, beginning at Helleſpont, endeth in the mouth of
Mœotis. But briefly we are to deſcribe the forme of the whole ſea, to the end that the parts may
be ſooner and more eaſily knowne. The vaſt and wide Ocean lying before Aſia, and driven out
from Europe in that long coaſt of Cherſoneſus, breaketh into the maine with a ſmall and nar-
row iſſue, and by a Firth of ſeven ſtadia (as hath been ſaid) divideth Europe from Aſia. The firſt I
ſtreights they call Helleſpontus. This way *Xerxes* the king made a bridge upon ſhips, & ſo led his
armie over. From thence there is extended a ſmall Euripus or arm of the ſea for 86 miles ſpace,
to Priapus a citie of Aſia, wheras *Alexander* the great paſſed over. From that place the ſea grow-
eth wide and broad, and againe gathereth into a ſtreight: the largeneſſe thereof is called Pro-
pontis; the ſtreights, Boſphorus, halfe a mile over: and that way *Darius* the father of *Xerxes*
made a bridge over, and tranſported his forces. The whole length of this from Helleſpont is 239
miles. From thence the huge maine ſea called Pontus Euxinus, and in times paſt Axenus, ta-
keth up the ſpace betweene lands farre diſſite and remote aſunder, and with a great winding and
turning of the ſhores, bendeth backward into certaine horns, and lyeth out ſtretched from them K
on both ſides, reſembling evidently a Scythian bow. In the very mids of this bending, it joyneth
cloſe to the mouth of the lake Mœotis. And that mouth is called Cimmerius Boſphorus, two
miles and a halfe broad. But betweene the two Boſphori, Thracius and Cimmerius, there is a
direct and ſtreight courſe betweene, as *Polybius* ſaith, of 500 myles. Now the whole circuit of
all this ſea, as *Varro* and all the old writers for the moſt part doe witnes, is 2150 miles. *Nepos Cor-
nelius* addeth thereto 350 miles mores. *Artemidorus* maketh it 2919 miles. *Agrippa* 2360 miles.
Mutianus 2865 miles. In like ſort, ſome have determined & defined the meaſure on Europe ſide,
to be 4078 miles and a halfe: others 11072 miles. *M. Varro* taketh his meaſure in this manner:
From the mouth of Pontus to Apollonia, 188 miles and a halfe: to Calatis as much. Then to
the mouth of Iſter 125: to Boryſthenes 250: to Cherrhoneſus, a towne of the Heracleates, 375 L
miles. To Panticapæus, which ſome call Boſphorus, the utmoſt coaſt of Europe, 222 miles and
a halfe: which being put in a groſſe ſumme together, 1336 miles and a halfe. *Agrippa* meaſu-
reth thus: from Bizantium to the river Iſter 560 miles: then to Panticapæum 630: from thence
the very lake Mœotis taking into it the river Tanais, running out of the Rhiphæan hils, is ſup-
poſed to beare the compaſſe of 1306 miles, beeing the furtheſt bound betweene Europe and
Aſia. Others againe make 11025 miles. But ſurely from his mouth to the mouth of Tanais, and
take a ſtreight courſe, it is 375 miles without queſtion. The inhabitants of that coaſt, have been
named in the deſcription and mention of Thrace, as farre as to Iſtropolis: now from thence,
the mouthes of Iſter. This river ariſing among the hills of Abnoba, a mountaine of Germanie,
over-againſt Rauricum a towne in Gaule, paſſing many a mile beyond the Alpes, and through M
innumerable nations under the name of Danubius, with a mightie encreaſe of waters, & where
he firſt beginneth to waſh Illyricum, taking the name of Iſter after he hath received ſixtie rivers,
and the one halfe of them well-neare navigable, rolleth into Pontus with ſixe huge ſtreames.
The firſt mouth of it is Peuces: ſoone after the Iland it ſelfe Peuce, of which the next channell

tooke

A tooke name, and is ſwallowed up of a great miere of of 19 miles. Out of the ſame channell and above Aſtropolis, a poole is bred of 63 miles compaſſe, which they call Halmyris. The ſecond mouth is called Naracuſtoma: the third Caloſtoma, neare the Iland Sarmatica: the fourth Pſeudoſtoma, and the Iland Conopon Diabaſis. After that, Boreoſtoma, and Spireoſtoma. Each of theſe are ſo great, that by report the ſea for 40 miles length within it is over-matched with the ſame, and the freſh water may ſo farre be evidently taſted. From it, into the inland parts of the countrey, the people verily be all Scythians: but divers other nations there be that inhabite the coaſts next to the ſea: in ſome places the Gete, called of the Romanes Daci: in others Sarmatæ, of the Greekes Sauromatæ; and among them, the Hamaxobij or Aorſi. Elſewhere, the baſtard and degenerate Scythians, who are come from baſe ſlaves, or elſe the Troglodites:
B and anon the Alani and Rhoxalani. But the higher parts betweene Danubius and the forreſt Hercynius, as farre as to the Pannonian wintering harbours of Carnuntum, and the confines there of the Germans, the fielden country alſo & plains of Iazyge, the Sarmatians poſſeſſe. But the hills and forreſts, the Dakes who were expelled by them, doe inhabite as farre as to the river Pathyſlus from Marus; or peradventure it is Duria, dividing them from the Suevians and kingdome of Vannians. The parts againſt theſe, the Baſtarnæ doe keepe; and from thence, other Germani. *Agrippa* hath ſet down that whole tract from Iſter to the Ocean, to amount unto 2000 miles, and 400 leſſe in breadth, to wit, from the deſerts of Sarmatia to the river Viſtula. The name of Scythians every where continually runneth into Sarmatians and Germanes. Neither hath that old denomination remained in any others but thoſe, who (as I have ſaid) live farthеſt off
C and in the edge of theſe nations, unknowne in manner to all men beſides. But the townes next to Iſter are Cremniſcos, and Æpolium: the mountaines Macrocrennij: the noble river Tyra, giving name to the towne, whereas before time it was called Ophiuſa. Within the ſame there is a ſpatious Iland, inhabited by the Tyragetæ. And it is from Pſeudoſtomum, a mouth of Iſter, 130 miles. Soone after be the Axiacæ, bearing the name after the river: beyond whom are the Crobyzi: the river Rhode: the creeke Sagaricus, and the haven Ordeſus. And 120 myles from Tyra, is the great river Boryſthenes; alſo a lake and people of that name: yea and a towne 15 miles within from the ſea, called by auncient names Olbropolis, and Miletopolis. Againe, in the ſea ſide, the haven or harbour of the Achæans: the Iland of *Achilles*, famous for the tombe of that worthie wight. And from it 135 miles, there is a demie Iland lying out acroſſe in faſhion
D of a ſword, called Dromos Achilleos, upon occaſion of his exerciſe there of running: the length whereof *Agrippa* hath declared to be 80 miles. All that tract throughout, the Tauriſci, Scythians, and Sarmatians doe inhabite. Then the wild woodland countrey gave the name unto the ſea Hylæum, which beateth hard upon it: the inhabitants are called Enæcadloæ. Beyond, is the river Panticapes, which divideth the Nomades and Georgians aſunder: and ſoone after, Aceſinus. Some writers doe ſhew, that Panticape togither with Boryſthenes, runne togither in one confluent beneath Olbia, but they that write more exactly, doe name Hypanis. See how much they erred, who have deſcribed it in a part of Aſia. It entreth into the ſea with a mightie great ebbe and returne of the water, untill it be within five miles of Mœotis, compaſſing as it goeth a mightie deale of ground, and many nations. Then there is a gulfe or arme of the ſea cal-
E led Corcinites, and a river Pacyris. Townes, Naubarum and Carcine. Behind, is the lake Buges, let out into the ſea by a great ditch. And Buges it ſelfe from Coretus (an arme or braunch of the lake Mœotis) is disjoyned, with a backe part full of crags and rockes. Rivers it receiveth, Buges, Gerrhus, Hypanis, comming all from divers quarters: for Gerrhus parteth the Baſilides and Nomades. Hypanis, through the Nomades and the Hyleans, falleth into Buges by a channell made by mans hand, but in his owne naturall channell into Coretus. The region of Scythia is named Sendica. But in Carcinites, Taurica beginneth: which alſo in times paſt was environed all about with the ſea, whereſoever now there lie plaines and flat fields. But afterwards it mounteth up with huge hilles. Thirtie nations there be in it: and of them 24 be Inlanders. Six townes,
F Orgocyni, Caraſeni, Aſſyrani, Tractari, Archilachitæ, and Caliordi. The very pitch and creſt of the hill, the Scytotauri doe hold. Bounded they are Weſtward, with Cherroneſus; Eaſtward with the Scythian Satarchi. In the coaſt next to Carcinites are theſe townes; Taphræ, in the very ſtreights of the demie Iland: then, Heraclea, Cherroneſos, endowed with franchiſes by the Romanes. Aforetime it was called Megarice, and is the moſt civile and faireſt of all the reſt of that tract, as retaining ſtill the names and faſhions of the Greekes, and is beſides compaſſed with a

wall

wall of five miles about. Then, the promontorie Parthenium. A citie of the Tauri, Placia. The G
haven Symbolon: the promontorie Criu-metopon, over-againſt Charambes a promontorie of Aſia, running through the middle of Euxinus, for the ſpace of 170 miles: which is the cauſe eſpecially that maketh the forme aboveſaid of a Scythian bow. Nere to it, are many havens and lakes of the Tauri. The towne Theodoſia, diſtant from Criu-metopon 122 myles, and from Cherſoneſus 165 miles. Beyond, there have been townes, Cyte, Zephyrium, Acre, Nymphæum, and Dia. And the ſtrongeſt of them all by many degrees, ſtandeth yet ſtill in the very entrie of Boſphorus, namely, Panticapæum of the Mileſians, from Theodoſia 1035 miles: but from Cimmerum, a towne ſituate beyond the Firth, a mile and a halfe as we have ſaid. And this is all the breadth there that divideth Aſia from Europe: which ſometime is paſſeable over moſt-what on foot, namely when the Firth is frozen and all an yce. The breadth of Boſphorus Cimmerius, H
is 12 miles and a halfe. It hath upon it theſe townes, Hermiſium, Myrmecium; and within it, an Iland Alopece. But along Mœotis from the fartheſt narrow land paſſage, which place is called Taphræ, unto the mouth of Boſphorus, it containeth 260 miles. On Taphræ ſide, the Continent within-forth is inhabited by the Anchetæ, among whome Hypanis ſpringeth: and Neuri, where Boryſthenes hath his head. Moreover, the Geloni, Thuſſagetæ, Budini, Baſilidæ, and the Agathyrſi, with blew haire on their heads. Above them, the Nomades, and the Anthropophagi. On Buges ſide above Mœotis, the Sauromates and Eſſedones dwell. But along the borders even as farre as Tanais, the Mœotæ, of whome the lake was ſo called, and the utmoſt on their backes the Arimaſpi. Within a little appeare the Rhiphæan hils, and a countrey called Pterophoros, for the reſemblance of certaine wings or feathers, occaſioned by the continuall fall of I
ſnow. A part of the world thus is condemned by dame Nature, and drowned in deepe and thick darkneſſe, dwelling within no other houſes but the workes of frozen cold, and the ycie harbours of the chilling Northerne wind. Behind thoſe hilles and beyond the North pole, there is a bleſſed and happie people (if wee may beleeve it) whom they call Hyperborei, who live exceeding long, and many fabulous and ſtrange wonders are reported of them. In this tract are ſuppoſed to be the two points or poles about which the world turneth about, and the verie ends of the heavens revolution. For ſix moneths together they have one entire day; and night as long, when the Sunne is cleane turned from them: but their day beginneth not at the ſpring Æquinoctiall (as the leaud and ignorant common people doe imagine) and ſo continueth to the Autumne: for once in the yeere, and namely at our mid-ſummer when the Sun entreth into Cancer, the Sunne K
riſeth with them: and once likewiſe it ſetteth, even in mid-winter with us, when the Sunne entreth Capricorne. The countrey is open upon the Sunne, of a bliſſefull and pleaſant temperature, void of all noiſome wind and hurtfull aire. Their habitations be in woods and groves, where they worſhip the gods both by themſelves, and in companies and congregations: no diſcord know they; no ſickneſſe are they acquainted with. They never die, but when they have lived long enough: for when the aged men have made good cheere, and annointed their bodies with ſweet ointments, they leape from off a certaine rocke into the ſea. This kind of ſepulture, of all others is moſt happie. Some Writers have ſeated them in the firſt part of the ſea-coaſts in Aſia, and not in Europe, for that indeed ſome be there reſembling the like manners and cuſtomes, and
even ſo ſituate, named Atocori. Some have ſet them juſt in the mids betweene both Sunnes, to L
wit, the ſetting of it with the Antipodes, and the riſing of it with us: which cannot poſſibly be, conſidering ſo vaſt and huge a ſea comming betweene. As for thoſe that have placed them no where but in the ſixe moneths day-light, have written thus much of them, That they ſow in the morning, reape at noone, at ſun-ſetting gather the fruits from the trees, and in the nights lye cloſe ſhut up within caves. Neither may we make doubt of that nation, ſince that ſo many Authors doe teſtifie, That they were wont to ſend the firſt fruits of their corne, as farre as Delos to *Apollo*, whome above all others they honour. And virgins they were that had the carriage of this preſent; who for certaine yeeres were venerable, and courteouſly entertained of all nations, untill ſuch time as upon breach of faithfull hoſpitalitie, they tooke up an order to beſtow thoſe ſacred oblations in the next marches of their neighbour borderers: and they againe to conveigh M
the ſame to their neighbours that confined upon them, and ſo forward as farre as to Delos. But ſoone after, this cuſtome was for-let and cleane given over. The length of Sarmatia, Scythia, and Taurica, and of all that tract from the river Boryſthenes, is 980 myles, the breadth 717, as *M. Agrippa* hath caſt it. But I for my part ſuppoſe, that the meaſure of this part of the earth is

uncertaine,

A uncertaine. But after the order which we have begun, let us go forward with the reſt behind of all this Diviſion: as for the petie ſeas theteof, we have verily ſhewed them alreadie.

Chap. xiii.

The Ilands Pontus.

HElleſpont hath no Ilands to be ſpoken of, in Europe. In Pontus are two, a mile and a halfe from Europe, and 14 miles from the mouth of the river, to wit, Cyaneæ, of others called Symplegades; and by report of fables, they ran one into another: the reaſon was, becauſe they being ſevered by a ſmall ſpace between, to them that enter the ſea full upon them, they ſee-
B med twaine: but if they turned their eye a little aſide from them, they made a ſhew as if they met together. On this ſide Iſter there is one, pertaining to the Apolloniates, 80 miles from Boſphorus Thracius, out of which *M. Lucullus* brought *Apollo Capitolinus*. What were within the mouthes of Iſter, we have declared alreadie. Before Boryſthenes, is the abovenamed Achillea, the ſame is called Leuce and Macaron. This, our moderne Coſmographers in theſe dayes doe ſet 140 myles from Boryſthenes: from Tyra 120: from the Iland Peuce 50. It is in compaſſe about, ten miles. The reſt be in the gulfe Carcinites, namely Cephalonneſos, Rhoſphoduſa, and Macra. I cannot paſſe by the opinion of many writers, before we depart from Pontus, who have thought that all the inland ſeas or Mediteranen, ariſe from that head, and not from the ſtreights of Gades: and they lay for their ground an argument not without ſome good probabilitie, be-
C cauſe out of Pontus the ſea alwaies floweth, and never ebbeth againe.

But now wee are to depart from thence, that other parts of Europe may be ſpoken of: and when we are gone over the Rhiphœan hills, we muſt paſſe along cloſe to the North Ocean, and keepe the left hand untill we come to Gades. In which tract, there are reported to be very many Ilands without names: of which, by the report of *Timæus*, there is one before Scythia called Bannomanna, diſtant from Scythia one daies ſailing: into which, in the temperate ſeaſon of the ſpring, Amber is caſt up to the ſhore by the waves of the ſea. All the other coaſts are no otherwiſe marked and knowne, but by uncertaine here-ſay. The North Ocean from the river Paropamiſus, whereas it daſheth upon Scythia, *Hecatæus* nameth Amalchium, which word in the language of that nation, ſignifieth Frozen. *Philemon* writeth, that the Cimbrians call it Morimaru-
D ſa, *i. Mortuum mare*, [the dead ſea:] even as farre as to the promontorie Rubeæ: but all beyond forward, Cronium. *Xenophon Lampſacenus* ſaith, That three dayes ſailing from the Scythian coaſt, there is the Iland Baltia, of exceeding greatnes. The ſame doth *Pytheas* name Baſilia. There be alſo named the Iles Oonæ, wherein the inhabitants live of birds egges and otes. Others alſo, wherein men are borne with horſe feet, called thereupon Hippopades. Others againe of the Panoti, who being otherwiſe naked, have mightie great eares that cover their whole bodies. And now forward we begin at the nation of the Ingevoni, the firſt of all the Germanes in thoſe parts, to diſcover all upon more ſure and evident report. There, is the exceeding great mountain Sevo, not inferiour to the high hills Riphæi, which maketh a mightie huge gulfe, even as farre as to the Cimbrians promontorie, called Codanus, and full it is of Ilands; of which, the goodlieſt
E of all is Scandinavia, the bigneſſe whereof is not yet diſcovered. A part onely thereof, as much as is knowne, the nation of Helleviones doth inhabite in 500 villages, and they call it, A ſecond world. And as it is thought, Enigia is not leſſe a iote. Some ſay, that theſe parts as farre as to the river Viſtula, is inhabited by the Sarmatians, Venetians, Scyrians, and Hirrians: alſo that the gulfe of the ſea is called Clylipenus: and that in the mouth or entrance of it is the Iland Latris. Alſo that not farre from it, there is another arme of the ſea bounding upon the Cimbrians. The promontorie of the Cimbrians ſhooting farre into the ſeas, maketh a demy Iland, which is called Cartris. From which coaſt, three and twentie Ilands have been diſcovered and knowne by the Romane armies. The nobleſt of them be Burchana, called of our countrey-men Fabaria, of the plentie of a pulſe (called Beanes) growne there of it ſelfe unſowne. Likewiſe Gleſſa-
F ria, ſo called by the ſouldiers, of Amber; but of the barbarous people, Auſtrania: and beſides them Actania. Along this ſea-coaſt, untill you come to the river Scaldis, the Germane nations do inhabite: but the meaſure of that tract cannot eaſily be declared, ſuch unmeaſurable diſcord and difference there is among writers. The Greeks and ſome of our owne country have delivered the coaſt of Germanie to be 2500 miles about. *Agrippa* again joining with it Rhetia & Noricum,

ſaith, That it is in length 686 miles, and in breadth 268. And verily of Rhœtia alone, the bredth well-nere is greater, at leaſt-wiſe at the time that it was ſubdued, and the people departed out of Germanie: for Germanie many years after was diſcovered, and yet not all of it knowne throughly. But if it be lawfull to gueſſe, there will not be much wanting in the coaſts and compaſſe, according to the opinion of the Greekes; nor in the length ſet downe by *Agrippa*. G

Chap. XIIII.

Of *Germanie*.

Of Germanes, there be five kinds. The Vindili, part of whome be the Burgundians, Varini, Carini, and Gurtones. A ſecond ſort, the Ingævones, part of whome be the Cimbri, Teutoni, and people of the Cauchi. The next to them be the Iſtævones, and part of them be the Cimbri. Then the midlanders, the Hermiones, among whome are the Suevi, Hermunduri, Chatti, and Cheruſci. The fift, are the Peucini, and Baſternæ, bordering upon the above-named Dacæ. Faire rivers that run into the Ocean, to wit, Guttalus, Viſtillus or Viſtula, Albis, Viſurgis, Amiſius, Rhenus, Moſa. And withinforth the Hircynium hill, inferiour to none in eſtimation, ſtandeth to guard and encloſe them. H

Chap. XV.

Ilands in the Gaules Ocean.

Vpon the very Rhene it ſelfe, for an hundred myles almoſt in length, lyeth the moſt noble Iland of the Batavi, and Cannenufates: as alſo others of the Friſians, Cauchians, Friſiabones, Sturij, and Marſalij, which are ſpread within Helius and Flevus. For ſo be the mouthes, into which Rhenus guſhing, divideth it ſelfe: and is diſcharged from the North into certaine lakes: from the Weſt, into the river Moſa. But in the middle mouth betweene, he beareth a ſmall current and channell, and keepeth his owne name. I

Chap. XVI.

England, and Ireland.

Over againſt this tract, lyeth Britannia, between the North and the Weſt: an Iland renowmed both in Greeke and Romane records. Oppoſite it is unto Germanie, Gaule, and Spaine, the greateſt parts by farre of all Europe, and no ſmall ſea betweene. Albion it was ſometime named, when all the Ilands were called Britanniæ, of which anon wee will ſpeake. This Iland is from Geſſoriacum, a coaſt towne of the Morini, fiftie miles, and take the next and ſhorteſt cut. In circuit, as *M. Pitheas* and *Iſidorus* report, it containeth 4825 miles. And now for theſe 30 yeares well neare, the Romane captaines grow into farther knowledge thereof, and yet not beyond the forreſt Caledonia, as neere as it is. *Agrippa* ſuppoſeth, that it is in length 800 miles, and in breadth 300. Alſo that Ireland is as broad, but not ſo long by 200 miles. This Iland is ſeated above it, and but a very ſhort cut or paſſage diſtant from it, to wit, 30 miles from the people Silures. Of other Ilands in this Ocean, there is none by report, in compaſſe more than 125 myles. Now there be Orcades 40, divided aſunder by ſmall ſpaces betwene: Acmodæ 7, and 30 Hæbudes. Alſo betweene Britaine and Hibernia, Mona, Monapia, Ricnea, Vectis, Silimnus, and Andros: but beneath them, Siambis and Axantos: and on the contrarie ſide toward the Germane ſea, there lye ſcattering the Gleſſariæ, which the later Greeke writers have named Electrides, for that Amber there, was engendred and bred. The fartheſt of all, which are known and ſpoken of, is Thule; in which there be no nights at all, as we have declared, about mid-ſummer, namely when the Sunne paſſeth through the ſigne Cancer; and contrariwiſe no daies in mid-winter: and each of theſe times they ſuppoſe, doe laſt ſixe moneths, all day, or all night. *Timæus* the Hiſtoriographer ſaith, That farther within-forth, and ſix dayes ſailing from Britaine, there lyeth the Iland Mictis, in which white lead groweth: and, that the Britaines doe ſaile thither in winter veſſels covered with leather round about and well ſowed. There be that make mention of others beſide, to wit, Scandia, Dumna, and Bergos, and the biggeſt of all the reſt Nerigos, from which men ſaile to Thule. Within one daies ſailing from Thule, is the frozen ſea, named of ſome Cronium. K L M

A

Chap. xvii.

Gallia.

All Gallia, by one name called Comata, is divided into three kinds of people, and those severed one from the other by rivers especially: to wit, Belgica, from Scaldis to Sequana: Celtica, from it to Garumna; and this part of Gallia is named Lugdunensis. From thence to the lying out of the mountaine Pyrenæus, Aquitania, called beforetime Aremotica. *Agrippa* hath made this reckoning and computation of all Gaule generally, to wit, lying between Rhene, Pyrenæus, the Ocean, and the hils Gebenna and Iura; wherby he excludeth Narbonensis Gallia, that is in length 420 myles, and in breadth 313. Next to Scaldis, there inhabited the ut-
B most borders, the Toxandri, under many names. Then the Menapij, Morini, and Oromansici, joyning upon that tract or territorie which is called Gessoriacus: the Brinanni, Ambiani, Bellonici, and Hassi. But farther within-forth, the Castologi, Atrebatis, and Nervij, free states. The Veromandui, Sueroni, and Suessiones, likewise free. The Treviri free beforetime: the Lingones confederates: the Remi confederate also: the Mediomotrici, the Sequani, the Raurici, and Helvetij. Colonies twaine, Equestris, and Rauriaca. Moreover, of Germane nations in the same province that dwell neere Rhene, the Nemetes, Trivochi, and Vangiones: then the Vbij, Colonia, Agrippensis, Gugerni, Batavi, and those whome we spake of in the Ilands of Rhene.

Chap. xviii.

C

Lugdunensis Gallia.

Lvgdunensis Gallia, containeth the Lexovij, Velocasses, Galleti, Veneti, Abricatui, Osismij, and the noble river Ligeris: but a more faire and goodly demy-Iland, running foorth into the Ocean, from the very marches of the Osismij, having in circuit 625 miles: with the necke therof 125 miles broad. Beyond it, dwell the Nannetes: within-forth the Hœdni confederates, the Carnuti likewise confederates, the Boij, the Senones, the Aulerici, surnamed Eburovices, and the Cenomannes and Meldi, free states. Parrhisij, Trecasses, Andegani, Viducasses, Vadicasses, Vnelli, Carisvelites, Drabhudi, Rhedones, Turones, Itesui, and Secusiani, free states, in whose countrey standeth the Colonie Lugdunum.

D

Chap. xix.

Aquitania.

To that province of Gaule which is called Aquitania, belong the Ambilatri, Anagnutes, Pictones, the Santones, Bituriges, named also Vibisci, Aquitani, whereof the province tooke name, and the Sediboniates. Then such as were enrolled into townships from divers parts, to wit, Begerri, Tarbeli, who came under 4 ensigns, Cocossati, under 6 ensigns, Venami, Onobrisates, Belendi, and the forrest Pyrenæus. Beneath them, Monesi, Osquidiales, Mountaineis, Sibyllates, Camponi, Bercorates, Bipedimui, Sassumini, Vellates, Vornates, Consoranni, Ausci, Elusates, Sottiates, Osquidates in the champion and plaine countrey, Succasses,
E Latusates, Basabocates, Vassei, Sennates, Cambolectri, Agesinales joyning to the Pictones. Then the Bituriges free, who are also called Cubi. Next to them, Lemovices, Arverni free, and Gabales. Againe, those that confine and border upon the province Narbonensis, the Ruthenes, Caduni, Autobroges, and the Petrogoti divided from the Tolosanes by the river Tarne. Seas about the coasts, upon Rhene the North Ocean: betweene it and Sequana, the Britaine Ocean: between it and Pyrenæus, the Gaule Ocean, Ilands many, to wit, of the Veneti, which be called also Veneticæ: and in the gulfe of Aquitane, Vliarus.

Chap. xx.

F

The hither province of Spaine.

At the Promontorie of Pyrenæus beginneth Spaine; narrower not onely than Gaule, but also than it selfe (naturally) so huge a quantitie is wrought into it, whiles the Ocean of the one coast, the Iberian sea on the other, do cling and presse the sides togither. The very hils

of Pyrenæus, which from the Eaſt ſpread all the way to the Southweſt, make Spaine ſhorter on the North ſide than the South. The next marches of this higher province is the ſame that the tract of Tarracon, namely from Pyrenæus along the Ocean, the forreſt and mountaines of Vaſcones. And firſt in this part you find theſe townes: namely in the countrey of the Varduli, Olarſo, Moroſgi, Menoſca, Veſperies, the port-towne Amanum, where now is Flaviobriga, and a colonie of nine citties. The region of the Cantabri, the river Sada, the port town of Victoria, inhabited by the Iuliobrigenſes. From that place the fountaines of Iberus fortie miles. The haven Biendium, the Origeni entermingled with the Cantabri. Their havens, Veſei and Veca: the countrey of the Aſtures, the towne Nœga, in the demie Iſland Peſicus. And then the Countie Lucenſis, and ſo from the river Navilubio, the Cibarci, Egovarri ſurnamed Namarini, Iadoni, Arrotiebæ, the Promontorie Celticum. Rivers, Florius and Nelo. Celtici ſurnamed Neriæ: and above them the Tamarici, in whoſe demie Iſland are three altars called Seſtianæ, dedicated to *Auguſtus*, Cœpori, and the towne Nœla. The Celtici ſurnamed Præſamarci, and Cileni. Of Iſlands worth the naming, Corticata and Aunios. From the Cileni, the Countie towne of the Bracæ, Heleni, Gravij, the caſtle Tyde, all deſcended from the Greekes. The Iſlands Cicæ, the faire town Abobrica, the river Minius with a broad or wide mouth foure miles over, the Leuni, Seurbi, Auguſta a towne of the Bracæ: and above them, Gallæcia, the river Limia. Alſo the river Durius, one of the greateſt in Spaine, ſpringing in the Pelendones countrey, and running hard by Numantia: and ſo on, through the Arevaci and Vaccæi, dividing the Vettones from Aſturia, and the Gallæcians from Luſitania: and there alſo it keepeth off the Turduli from the Bracari. All this region aboveſaid from Pyrenæus, is full of mettall mines, to wit, gold, ſilver, yron, lead, as wel blacke as white, *i.* tinne.

Chap. xxi.

Luſitania.

At the river Durius beginneth Luſitania, wherein are Turduli the old, Peſuri, the river Vacca. The towne Talabrica, the towne and river Minium. Townes, Conimbrica, Oliſippo, Eburo, Britium. From whence there runneth out into the ſea with a mightie cape the Promontorie, which ſome have called Artabrum; others, the Great; and many, Oliſſoponenſe of the towne, making a diviſion of land, ſea, and aire above. In it is the ſide of Spaine determined and bounded, and from the compaſſe of it beginneth the forefront thereof.

Chap. xxii.

Iſlands in the Ocean.

Of the one hand is the North and the Gaules Ocean: on the other, the Weſt and the Atlanticke Ocean. The ſhooting forth of the Promontorie aforeſaid, ſome have reported to be 60 miles, others 90. From thence to Pyrenæus, there be writers not a few, who ſay it is 1250 miles, and that there is a nation of the Atabri, which never was, with a manifeſt errour. For they have ſet in this place by exchanging ſome letters the Artotrebæ, whome wee named before the promontorie Celticum. They have erred alſo and miſſed in certaine famous rivers. From Minius abovenamed (as *Varro* ſaith) Æminius is 200 miles diſtant (which ſome men take to bee elſewhere, and call it Limæa) named of men in old time Oblivionis, and whereof goeth many a tale. From Durius to Tagus it is 200 miles, and commeth betweene. This Tagus is a river much renowned for the ſand that yeeld gold. 160 miles from it, the promontorie Sacrum runneth out from the middle front in manner of Spaine: and 14 miles *Varro* ſaith it is from it to the mids of Pyrenæus. But from Ana, by which we have ſeperated Luſitania from Bætica, 226 miles: adding thereto from Gades 102 miles. Nations, Celtici, Varduli, and about Tagus, the Vettones. From Ana to Sacrum, the Luſitanes. The memorable townes, from Tagus in the coaſt ſide, Oliſippo, of good note for the Mares that conceive there by the Weſt wind. Salacia with the addition of Vrbs Imperatoria, and Merobrica: the Promontorie Sacrum, and another called Cæneus. Townes, Oſſonoba, Balſa, and Myrtius. The whole province is divided into three counties or judiciall courts of Aſſiſes, Emeritenſis, Pacenſis and Scalabitanus. It containeth in all five and fortie States, wherein be five Colonies, one burrough towne of Romane cittizens, three enfranchiſed

A chiſed with the liberties of old Latium. Stipendiaries or Tributaries, ſixe and thirtie. Moreover, the Colonies bee thus named, Auguſta Emerita: and upon the river Ana, Metallinenſis, Pacenſis, Norbenſis, which is named alſo Cæſariana. To it are laid and enrolled Caſtra Iulia and Caſtra Cæcilia. The fift is Scalabis, called Præſidium Iulium. The free borough of Romane cittizens Olyſſippo, named alſo Felicitas Iulia. Towns of the old Latium libertie, Ebora, which likewiſe was called Liberalitas Iulia: Myrtilis alſo and Salatia which wee have ſpoken of. Of Tributaries, ſuch as I am not loth to name, beſide the aboveſaid in the additions of Bætica, Auguſtobrigenſes, Ammienſes, Aranditani, Axabricenſes, Balſenſes, Cæſarobricenſes, Caperenſes, Caurenſes, Colarni, Cibilitani, Concordienſes, the ſame that Bonori, Interauſenſes, Lancienſes. Mirobrigenſes ſurnamed Celtici, Medubricenſes, the ſame that Plumbarij, Ocelenſes who
B alſo are Lancienſes, Turtuli, named Barduli and Tapori. *M. Agrippa* hath written, that Luſitania, together with Aſturia and Gallæcia, is in length 540 miles, and in breadth 526. But all Spain from the two Promontories of Pyrenæus along the ſeas, taketh up in circuit of the whole coaſt 2900 miles, and by others, 2700. Overagainſt Celtiberia bee very many Iſlands, called of the Greekes Caſſiterides, for the plentie of lead which they yeeld: and juſt againſt the promontorie of the Arrotrebæ, ſixe named Deorum [*i.* of the gods] which ſome have called Fortunatæ. But in the very point or cape of Bætica, from the mouth of the firth, 75 miles, lieth the Iſland Gades, twelve miles long, as *Polybius* writeth, and three miles broad. It is from the maine, where it is neereſt, leſſe than *700 paces, in other parts above 7 miles. The whole Iſland it ſelfe containeth the ſpace of fifteene miles in circuit. It hath within it a towne of Romane cittizens named Au-
C guſta, Vrbs Iulia Gaditania. On that ſide that regardeth Spain, within 100 paces, there lieth another Iſland, three miles long, and a mile broad, wherein beforetime was the towne of Gades. The name of this Iſland, after *Ephorus* and *Philiſtides*, is Erythia: but according to *Tymæus* and *Silenus*, Aprodiſias: the naturall home bred inhabitants call it Iunonis. The bigger of theſe two Gades, as *Timæus* ſaith, was by them called Cotinuſa, our countreymen name it Tarteſſos, the Carthaginians * Gadir, which in the Punicke language ſignifieth *the number of ſeven. Erythia the other was called, becauſe the Tytians, who were the firſt inhabitants, were reported to have had their firſt beginning out of the red ſea Erythræum. Some thinke that *Geryon* here dwelt, hee whoſe droves of cattell *Hercules* had away. There bee againe that thinke how it is another, overa-
D gainſt Luſitania, and there ſometime ſo called.

*Leſſe than 3 quarters of a mile.

*Or Gadiz.

Septem, or, as ſome read, *Septum*, *i.* a parke or enclоſure.

Chap. xxiii.

The meaſure of all Europe.

HAving finiſhed our circuit about Europe, we muſt now yeeld the totall ſumme and complete meaſure of it in the whole, that ſuch as are deſirous of knowledge, bee not to ſeeke in any one thing. *Artemidorus* and *Iſidorus* have ſet downe the length thereof from Tanais to Gades 84014 miles. *Polybius* hath put downe the breadth of Europe, from Italie to the Ocean 1150 miles, for as then the largeneſſe thereof was not knowne. Now the very breadth of Italie alone by it ſelfe (as we have ſhewed) is 1220 miles to the Alpes: from whence by Lions to
E the Brittaine part of the Morini, which way *Polybius* ſeemeth to take his meaſure, is 1168 miles. But the more certaine meaſure and the longer is directed from the ſaid Alpes to the Weſt and the mouth of the Rhene, through the place called Caſtra Legionum Germaniæ, 1243 miles. Now from hence forward will we deſcribe Affricke and Aſia.

THE FIFTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

❧ *The description of Affrike.*

AFfrike the Greekes have called Lybia, even all that tract from whence the Lybian sea before it beginneth, and endeth in the Ægyptian. No part of the earth receiveth fewer gulfes and armes of the sea, in that long compasse of crooked coasts from the West. The names as well of the nations as townes there, be of all others most hard to bee pronounced, unlesse it bee in their owne tongues: and againe, they bee castles and forts for the most part that they dwell in.

Chap. I.

❧ *Mauritania.*

AT the beginning, the lands of Mauritania, untill the time of *C. Cæsar* [*i. Caligula*] sonne of *Germanicus*, were called kingdomes: but by his crueltie devided it was into two provinces. The utmost promontorie of the Ocean is named of the Greekes Ampelusia. The townes therin were Lissa and Cotes beyond *Hercules* pillars. Now in it is Tingi, sometime built by *Antæus*: and afterwards by *Claudius Cæsar* when he made a Colonie of it, called it was Traducta Iulia. It is from Belone a town in Bætica, by the next and neereſt passage over sea thirtie miles. Five and twentie miles from it in the Ocean coast standeth a Colonie erected by *Augustus*, now Iulia Constantia, exempt from the dominion and jurisdiction of the kings of Zilis: and commanded to goe for law and justice as farre as to Bætica. And two and thirtie miles from it, Lixos made a Colonie by *Claudius Cæsar*, wherof in old time there went many fabulous and lowd lying tales. For, there stood (they say) the roiall pallace of *Antæus*: there was the combate betweene him and *Hercules*: there also were the gardens and hort-yards of the Hesperides. Now there floweth thereinto out of the sea a certain creeke or arme thereof, and that by a winding channell, wherin men now take it that there were Dragons serving in good steed to keepe and guard the same. It encloseth an Iland within it selfe, which (notwithstanding the tract thereby be somewhat higher) is only not overflowed by the sea tides. In it there standeth erected an altar of *Hercules*: and setting aside certaine wild Olives, nothing els is to be seene of that goodly grove, reported to beare golden apples. And in good faith lesse may they make a wonder at the strange lies of Greece given out of these, and the river Lixus, who would but thinke how of late our countreymen have delivered some fables, as monstrous welneere of the same things: to wit, that this is a most strong and mightie cittie, and bigger than great Carthage: moreover, that it is situate over against it, and an infinite way well neere from Tingi: and other such like, which *Cornelius Nepos* hath beene most eager to beleeve. From Lixus fortie miles in the midland parts of the maine, standeth Babba, another Colonie of *Augustus*, called by him Iulia in the field or Champain: also a third 75 miles off, called Banasa, but now it hath the addittion of Valentia. 35 miles from it is the towne Volubile, just in the mid way betweene both seas. But in the coast and borders thereof, 50 miles from Lixus, there runneth Subur a goodly plenteous river, and navigable, neere to the Colonie Banasa. As many miles from it is the towne Sala, standing upon a river

A a river of the ſame name, neere now unto the wilderneſſe, much infeſted and annoied with whole heards of Elephants, but much more with the nation of the Autololes, through which lieth the way to Atlas the moſt fabulous mountaine of all Affricke. For writers have given out, that this hill ariſing out of the very middeſt of the ſea ſands, mounteth up to the skie, all rough, illfavoured, and overgrowne on that ſide that lieth to the ſhore of the Ocean, unto which it gave the name: and yet the ſame is ſhadowie, full of woods, and watered with veines of ſpouting Springs that way which looketh to Affricke, with fruitfull trees of all ſorts, ſpringing of the owne accord, and bearing one under another, in ſuch ſort, that at no time a man can want his pleaſure and delight to his full contentment. Moreover, that none of the inhabitants there are ſeene all day long: all is ſtill and ſilent, like the fearefull horror in deſert wilderneſſe: and as men come neerer
B and neerer unto it, a ſecret devotion ariſeth in their harts: and beſides this feare and horror, they are lifted up above the clouds, and even cloſe to the circle of the Moone. Over and beſides, that the ſame hill ſhineth oftentimes with many flaſhes of fires, and is haunted with the wanton laſcivious Ægipanes and Satyres, whereof it is full, that it reſoundeth with noiſe of haut-boies, pipes, and fifes, and ringeth againe with the ſound of tabers, timbrels, and cymbals. Theſe bee the reports of great and famous writers, to ſay nothing of the labours and works both of *Hercules* and *Perſes* there: and to conclude, that the way unto it is exceeding great, and not certainely knowne. Bookes there were beſides of *Hanno*, a great captaine and commander among the Carthaginians, who in the time of the moſt flouriſhing ſtate of Carthage, had a charge and commiſſion to diſcover and ſurvey the whole compaſſe of Affricke. Him, moſt of the Greekes as well as our
C countreymen following, among ſome other fabulous ſtories, have written that he alſo built many cities there: but neither memoriall upon record, nor any token of them at all is left extant. Whiles *Scipio Æmylianus* warred in Affrick, *Polybius* the writer of the Annales, received of him a fleet: who having ſailed about of purpoſe to ſearch into that part of the world, hath put thus much downe in writing, That from the ſaid mountaine Weſt, toward the forreſts full of wild beaſts, which Affricke breedeth, unto the river Anatis, are 485 miles. And from thence to Lixus 205. *Agrippa* ſaith, That Lixus is diſtant from the ſtreights of Gades 112 miles. Then, that there is an arme of the ſea called Saguti. Alſo a towne upon the Promontorie, Mutelacha. Rivers, Subur and Sala. Moreover, that the haven Rutubis is from Lixus 313 miles. And ſo forward to the Promontorie of the Sunne. The port or haven Riſardir: the Gætulians, Autololes, the river Co-
D ſenus, the nation of the Scelatites and Maſſalians. The rivers Maſatal and Darat, wherin Crocodiles are engendred. Then forward, that there is a gulfe of 516 miles, encloſed within the promontorie or cape of the mountaine Barce, running along into the Weſt, which is called Surrentium. After it, the river Palſus, beyond which are the Æthyopians Perorſi, and at their backe are the Pharuſi. Vpon whom joine the midlanders, to wit, the Gætuliandars. But upon the coaſt are the Æthyopian Daratites, the river Bambotus, full of Crocodiles & Hippopotames, [*i.* Waterhorſes.] From which, he ſaith, That there is nothing but mountains all the way as farre as to that, which we call Theon-Ochema [The gods chariot.] Then, in ſailing nine daies and nights to the promontorie Heſperium, he hath placed the mountaine Atlas in the midway thereof, which by all other writers is ſet downe to bee in the utmoſt marches of Mauritania. The firſt time that the
E Romanes warred in Mauritania, was in the time of prince *Claudius* Emperour: at what time as *Ædæmon* the freed ſervant of king *Ptolomæus*, by *C. Cæſar* ſlain, went about to revenge his death. For as the barbarous people retired and fled backe, certaine it is that the Romanes came as far as to the hill Atlas. And not onely ſuch Generals as had beene Conſuls, and were of Senatours degree and calling, who at that time managed and conducted the warres, but knights alſo and gentlemen of Rome, who from that time had government and commaund there, tooke it for an honour and glorie, that they had pierced and entred into Atlas. [*Five Romane Colonies, as wee have ſaid, be in that province] and by that common fame and report, there may ſeeme to lie a thorow-fare thither. But that is found for the moſt part by daily experience, moſt deceiveable
F of all things elſe: becauſe perſons of high place and great worth, when they are loth to ſearch out narrowly into the truth of matters, ſticke not for ſhame of ignorance, to give out untruths: and never are men more credulous and apter to beleeve and be deceived, than when ſome grave perſonage fathereth a lie. And verily I leſſe marvell, that they of gentlemens degree, yea, and thoſe now of Senatours calling, have not come to the certaine knowledge of ſome things there: ſeeing they ſet their whole affection and mind upon nothing but exceſſe and rioiot: which how

[*It ſeemeth that this clauſe is to be ſet in the beginning of the next chapter.]

powerfull

powerfull it is and forcible, is ſeene by this moſt of all, when forreſts are ſought out far and neere G
for Ivorie and Citron trees: when all the rockes in Getulia are ſearched for Murices and Purpuræ, [ſhell-fiſhes that yeeld the purple crimſen colour.] Howbeit the naturall inhabitants of that countrey doe write, That in the ſea-coaſt 150 miles from Sala, there is the river Aſana, that receiveth ſalt water into it, but hath in it a goodly faire haven: and not farre from it another freſh river, which they call Fut: from which to Dyris (for that is the name in their language of Atlas, by a generall conſent) are 200 miles, with a river comming betweene, named Vior. And there, the ſpeech ſo goeth, are to be ſeene the certaine tokens of a ground ſometimes inhabited, to wit, the reliques of vineyards and date tree groves. *Suetonius Paulinus* (a Conſull in our time) who was the firſt Romane leader, that for certaine miles ſpace went over Atlas, alſo hath reported verily as touching the heigth thereof, that with the reſt: and moreover, that the foot thereof toward the botome, ſtand thicke and full of tall woods, with trees therein of an unknowne kind, but the heigth of them is delectable to ſee to, ſmooth and even without knots, the leaves and braunches like Cypreſſe; and beſides the ſtrong ſmell they yeeld, are covered all over with a thin downe, of which (with ſome helpe of Art) fine cloth may be made, ſuch as the ſilk-worme doth yeeld. That the top and creſt thereof is covered over with deep ſnow even in ſummer time. Moreover, that he reached up to the pitch of it at the tenth daies end, and went beyond it as farre as a river called Niger, through wilderneſſes full of blacke duſt, where other-whiles there ſtood out certaine cliffes, and craggie rockes, as they were ſcortched and burnt: and that thoſe places by reaſon of partching heat were not habitable, albeit a man made triall thereof in the winter ſeaſon. Furthermore, that the paiſants who dwelt in the next forreſts, were peſtred with Elephants, I
wild beaſts, and ſerpents of all ſorts; and thoſe people were called Canarij: for that they and dogges feed togither one with another, and part among them the bowels of wild beaſts. For certaine it is knowne, that a nation of the Æthiopians whom they call Peroeſi, joyneth upon them. *Iuba*, the father of *Ptolomæus*, who before-time ruled over both Mauritanes, a man more memorable and renowmed for his ſtudie and love of good letters, than for his kingdom and royall port, hath written the like concerning Atlas: and he ſaith moreover, that there is an herb growing there called Euphorbia, of his Phiſitions name that firſt found it: the milkie juyce whereof he praiſeth wondrous much, for to cleare the eyes, and to be a preſervative againſt all ſerpents and poiſons whatſoever: and thereof hath he written a treatiſe and made a book by it ſelfe. Thus much may ſuffice, if it be not too much, as touching Atlas. K

Chap. II.

☞ *The province Tingitania.*

THe length of the province Tingitania, taketh 170 miles. The nations therein be theſe: The Mauri, which in times paſt was the principall, and of whome the province tooke name: and thoſe moſt writers have called Maruſij. Being by warre weakned and diminiſhed, they came in the end to a few families only. Next to them were the Maſſæſuli, but in like manner were they conſumed. Now is the province inhabited by the Getulians, Bannurri, and the Autololes, the moſt valiant and puiſſant of all the reſt. A member of theſe were ſometime the Veſumi: but being divided from them, they became a nation by themſelves, and bounded upon the Æthiopians. The province naturally full of mountaines Eaſtward, breedeth Elephants. In the hill alſo Abila, and in thoſe which for their even and equall heigth they call, The ſeven brethren: and theſe butt upon Abila, which looketh over into the ſea. From theſe beginneth the coaſt of the Inward ſea. The river Tamuda navigable, and a towne ſometime [of that name.] The river Laud, which alſo receiveth veſſels. The towne Ruſardie, and the haven. The river Malvana navigable. The towne Siga juſt againſt Malacha ſituate in Spaine: the royall ſeat of *Syphax*, and now the other Mauritania. For a long time they kept the names of KK. ſo as the utmoſt was called Bogadiana: and likewiſe Bocchi, which now is Cæſarienſis. Next to it is the haven for the largeneſſe thereof called Magnus, with a towne of Romane citizens. The river Muluca, which is the limit of Bocchi and the Maſſæſuli. Quiza Xenitana, a towne of Straungers: Arſennaria, a towne of Latines three miles from the ſea: Carcenna, a Colonie of *Auguſtus*, erected for the ſecond legion: Likewiſe another Colonie of his planted with the Pretorian band, Gunugi: and the promontorie of *Apollo*. And a moſt famous towne there Cæſarea, uſually before-time called Iol, the royall ſeat of king *Iuba*: endowed by *Claudius* the Empe-

rour

A rour of happie memorie, with the franchiſes and right of a Colonie, at whoſe appointment the old ſouldiers were there beſtowed. A new towne, Tipaſa, with the graunt of the liberties of Latium. Likewiſe Icoſium, endowed by *Veſpaſian* the Emperour, with the ſame donations. The colonie of *Auguſtus* Ruſconiæ: and Ruſcurum, by *Claudius* honoured with the free burgeoiſie of the citie. Ruſoezus, a colonie of *Auguſtus*. Salde, a Colonie of the ſame man. Igelgili alſo, and Turca, a towne ſeated upon the ſea and the river Ampſaga. Within the land, the Colonie Auguſta, the ſame that Succubar; and likewiſe Tubriſuptus. Cities, Timici, Tigavæ. Rivers, Sardabala and Nabar. The people Macurebi: the river Vſar, and the nation of the Nabades. The river Ampſaga is from Cæſarea 233 miles. The length of Mauritania both the one and the other togither, is 839 miles, the breadth 467.

B

Chap. iii.

Numidia.

NExt to Ampſaga is Numidia, renowmed for the name of *Maſaniſſa*: called of the Greeks, the land Metagonitis. The Numidian Nomades, ſo named of chaunging their paſture, who carrie their cottages or ſheddes (and thoſe are all their dwelling houſes) about with them upon waines. Their townes be Cullu and Ruſicade, from which 48 miles off within the midland parts, is the colonie Cirta, ſurnamed of the Cirtanes: another alſo within and a free borough towne, named Bulla Regia. But in the utmoſt coaſt, Tacatua, Hippo Regius, and the
C river Armua. The towne Trabacha, of Romane Cittizens: the river Tuſca, which boundeth Numidia: and beſides the Numidian marble, and great breed of wild beaſts, nothing is there els worth the noting.

Chap. iiii.

Africa.

FRom Tuſca forward, you have the region Zeugitana, and the countrey properly called Africa. Three promontories: firſt, the White; then anon that of *Apollo* over-againſt Sardinia: and a third of *Mercurie* oppoſite to Sicilie; which running into the ſea, make two
D creekes: the one Hipponenſis, next to the towne which they call Hippo raſed; the Greeks name it Diarrhyton, for the little brookes and rilles that water the grounds: upon this, there bordereth Theudalis, an exempt towne from tribute, but ſomewhat farther from the ſea ſide; then the promontorie of *Apollo*. And in the other creeke, Vtica, a towne of Romane citizens, ennobled for the death of *Cato*: and the river Bagrada. A place called Caſtra Cornelia: and the colonie Carthago, among the reliques and ruines of great Carthage: and the colonie Maxulla. Townes, Carpi, Miſna, and the free borough Clupea upon the promontorie of *Mercurie*. *Item*, free townes, Curubis and Neapolis. Soone after yee ſhall meet with another diſtinction of Africke indeed. Libyphœnices are they called, who inhabite Byzacium; for ſo is that region named: containing in circuit 250 myles, exceeding fertile and plenteous, where the ground ſowne
E yeeldeth againe to the husband-man 100 fold encreaſe. In it are free townes, Leptis, Adrumetum, Ruſpina, and Thapſus: then, Thenæ, Macomades, Tacape, Sabrata, reaching to the leſſe Syrtis: unto which, the length of Numidia and Africa from Amphaga, is 580 miles: the bredth, of ſo much thereof as is knowne, 200. Now this part which wee have called Africke, is divided into provinces twaine, the old and the new; ſeparated one from the other by a foſſe or ditch brought as farre as to Thenæ, within the Africane gulfe, which towne is 217 myles from Carthage: and that trench *Scipio Africanus* the ſecond, cauſed to be made, and bare halfe the charges together with the KK. The third gulfe is parted into twaine, curſed and horrible places both, for the ebbing and flowing of the ſea, and the ſhelves betweene the two Syrtes. From Carthage to the nearer of them, which is the leſſe, is 300 miles by the account of *Polybius*: who ſaith alſo,
F that the ſaid Syrte is for 100 miles forward daungerous, and 300 about. By land alſo thither, the way is paſſeable by obſervation of the Starres, at one time of the yeere onely, and that lyeth through deſert ſands and places full of ſerpents. And then you meet with forreſts repleniſhed with numbers of wild beaſts: and within-forth, wilderneſſes of Elephants: and ſoon after, waſte deſerts even beyond the Garamantes, who from the Augilæ are diſtant twelve daies journey.

Above

Above them was the nation of the Psylli: and above them the Lake of *Diomedes* environned with desarts. Those Augylæ themselves are seated well neere in the middle way from Æthyopia, which bendeth Westward, and the countrey lying betweene the two Syrtes, with equall distance betweene of both sides: but the shore betweene the two Syrtes of 250 miles. There standeth the citie Ocensus, the river Cinyps and the countrey. Townes, Neapolis, Taphra, Abrotonum, the other Leptis, called also the great. Then the greater Syrtis, in compasse 625 miles, and in direct passage 313. Next to it, there inhabite the people Cisipades. In the inmost gulfe was the coast of the Lotophagi, whom some have called Alachroas, as farre as to the altars of Philæna, and of sand are they. Next to them, not farre from the Continent, the vast and wide Meere admitteth into it the river Triton, and taketh the name of him; but *Callimachus* calleth it Pallantias, and saith it is on this side the lesser Syrtes, but many place it betweene both Syrtes. The promontorie that encloseth the bigger, is named Borion. Beyond it is the province Cyrenaica. From the river Ampsaga to this bound, Affricke containeth 26 States, who are subject to the Romane Empire: among which are sixe Colonies besides the abovenamed, Vthina and Tuburbis. Townes endowed with franchises of Romane cittizens 15. Of which those in the midland parts, worthie to bee named, are Azuritanum, Abutucense, Aborense, Canopicum, Chilmanense, Simittuense, Thunusidense, Tuburnicense, Tynidrumense, Tribigense, Vcitana twaine, the greater and the lesse, and Vagiense. One towne enjoying the liberties of Latium, Vsalitanum. One tributarie or pensionarie towne neere Castra Cornelia, paieth custome and duties to Rome. Free townes 30, of which there are to bee named within-forth, Arolitanum, Acharitanum, Avinense, Abziritanum, Canopitanum, Melzitanum, Madaurense, Salaphitanum, Tusdritanum, Tiricense Tiphicense, Tunicense, Theudense, Tagestense, Tigense, Vlusibritanum, another Vagense, Vigense and Zamense. The rest may well be called not onely citties, but also for the most part, nations, namely, the Natatondes, Capsitani, Misulani, Sabarbares, Massili, Misives, Vamacures, Ethini, Massini, Marchubij: and Gætulia all and whole, even to the river Nigris, which parteth Affrike and Æthyopia.

Chap. V.

Cyrene.

The region Cyrenaica, called also Pentapolitana, is famous and renowned for the Oracle of *Hammon*, which is from Cyrenæ 400 miles, for the fountaine of the Sunne, and principally for five citties, Berenice, Arsinoe, Ptolemais, Apollonia, and Cyrene it selfe. Berenice standeth upon the utmost winding and nouke of Syrtis, called sometime the cittie of the abovenamed Hesperides, according to the wandering tales of Greece. And before the towne, not far off, is the river Lethon, the sacred grove where the hort-yards of these Hesperides are reported to be. From Leptis it is 385 miles. From it standeth Arsinoe, usually named Teuchira 43 miles: and from thence 22 miles, Ptolemais, called in old time Barce. And then 250 miles off the Promontorie Phycus runneth out along the Creticke sea, distant from Tænarus a cape of Laconia, 350 miles: but from Creet it selfe 125 miles. And after it Cyrene, 11 miles from the sea. From Phycus to Apollonia is 24 miles: to Cherrhonesus 88: and so forth to Catabathmus 216 miles. The inhabitants there bordering, bee the Marmaridæ, stretching out in length almost from Parætonium to the greater Syrtis. After them the Arataucles: and so in the very coast and side of Syrtis, the Nasamones, whome beforetime the Greekes called Mesammones by reason of the place, for that they were seated in the middest betweene the two quicke sands. The Cyrenaicke countrey, for the space of 15 miles from the sea side, is fruitfull for trees: and for the same compasse within the land, but for corne onely: but then for 30 miles in breadth, and 250 in length, for the gum Laser and nothing else. After the Masamones, the Hasbitæ and Masæ doe live. Beyond them the Hamanientes, eleven daies journey from the greater Syrtes to the West, and even they also every way are compassed about with sands: howbeit they find without much ado pits almost in cubites deepe, for that the waters there of Mauritania doe overflow. Houses they make themselves of salt, hewed out of their owne hils in manner of stone. From these to the Troglodites, in the Southwest coast is foure daies journey, with whom they chaffer and trafficke onely for a certaine precious stone or gem, which wee call a Carbuncle, brought out of Æthyopia. There commeth betweene, the countrey Phazania, lying toward the wildernesse abovesaid of Affricke, above the lesse Syrtis: where we subdued the nation of the Phazanij, together with the cit-

ties

A ties Alele and Cillaba. In like manner Dydamum overagainſt Sabrata. Next to whom there is a mountaine, reaching a great way from the Eaſt into the Weſt, called by our men Ater, naturally as it were burnt, and like as if it were ſcorched and ſet on fire with the reflection of the Sunne. Beyond that mountaine are the deſerts: alſo Matelgæ a towne of the Garamants, and likewiſe Debris, which caſteth forth a ſpring of waters ſeething up from noone to midnight exceeding hot: and for as many houres againe into midday moſt chilling cold: alſo the moſt goodly towne Garama, the cheefe head of the Garamantes. All which places the Romanes have conquered by force of armes, and over them *Cornelius Balbus* triumphed, the onely man of forrainers that was honoured with the triumphant chariot, and endowed beſides with the freedome of Romane citizens. For why, being borne at Gades, he and his uncle both, *Balbus* the elder, were made free
B denizens of Rome. And this is marvell that our writers have recorded, that beſides the townes abovenamed by him conquered, himſelfe in his triumph carried the titles and pourtraicts, not of Cydamus and Garama onely, but alſo of all other nations and citties, which were raunged in a Roll, and went in this order. The towne Tabidium, the nation Niteris, the towne Negligemela, the nation Bubeium, the towne Vel, the nation Enipi, the towne Thuben, the hill named Niger. The townes Nitibrum and Rapſa, the nation Diſcera, the towne Debris, the river Nathabur, the towne Tapſagum, the nation Nannagi, the towne Boin, the towne Pege, the river Daſibari. And againe forward, theſe towns lying one to another together, Baracum, Buluba, Alaſi, Balſa, Galla, Maxala, and Zizama. The hill Gyri, wherein *Titus* hath reported that precious ſtones were engendred. Hitherto the way to the Garamants, was intricate and unpaſſable, by reaſon of the rob-
C bers and theeves of that countrey, who uſed to dig certaine pits in the way (which to them that know the quarters of the countrey is no hard matter to doe) and then cover them lightly over with ſand. But in the laſt war which the Romanes maintained againſt the Oenſes, under the conduct and fortunate auſpices of *Veſpaſian* the Emperour, there was found a ſhort and neere way of foure daies journey: and this way is called *Præter caput Saxi* [beſides the rockes head.] The frontier towne of Cyrenaica is called Catabathmos, which is a towne and a vale all on a ſuddain falling with a ſteepe deſcent. To this bound, from the leſſe Syrtis, Cyrenaica Affrica lieth in length 1060 miles, and in breadth, for ſo much as is knowne, 800.

Chap. VI.

D

Libya Maræotis.

THe countrey following is named Mareotis Libya, and boundeth upon Ægypt, inhabited by the Marmaridæ, Adyrmachidæ, and ſo forward with the Mareotæ. The meaſure of it from Catabathmos to Paretonium, is 86 miles. In that tract there lieth in the way between the village Apis, a place renowned for the religious rites of Ægypt. From it to Parætonium are 12 miles. From thence to Alexandria 200 miles: the breadth thereof is 169 miles. *Eratoſthenes* hath delivered in writing, That from Cyrenæ to Alexandria by land is 525 miles. *Agrippa* ſaith, that the length of all Affricke from the Atlanticke ſea, together with the inferiour part of Ægypt containeth 3040 miles. *Polybius* and *Eratoſthenes* reputed to have been moſt exact and cu-
E rious in this kind, ſet downe, from the Ocean to great Carthage 600 miles. From thence to Canopicum the neereſt mouth of Nilus, they make 1630 miles. *Iſidorus* reckoneth from Tingi to Canopus 3599 miles. And *Artemidorus* fortie leſſe than *Iſiodorus*.

Chap. VII.

Iſlands about Affricke, and overagainſt Affricke.

THeſe ſeas have not very many Iſlands within them. The faireſt of them all is Meninx, 35 miles long, and 25 broad, called by *Eratoſthenes* Lotophagitis. Two townes it hath, Meninx on Affricke ſide, and Thoar on the other: it ſelfe is ſituate from the right hand promonto-
F rie of the leſſe Syrtis *200 paces. A hundred miles from it againſt the left hand is Cercina, with a free towne of the ſame name, in length it is 25 miles, and halfe as much in breadth where it is moſt: but toward the end not above five miles over. To it there lieth a prettie little one toward Carthage, called Cercinitis, & joineth by a bridge unto it. From theſe almoſt 50 miles, lieth Lopaduſa ſixe miles long. Then, Gaulos and Galata: the earth whereof killeth the Scorpion, a fell crea-

*Or 1500 paces, i. a mile and a halfe.

creature,and noiſome to Affricke.Men ſay alſo that they will die in Clupea,over againſt which lieth Corſyra,with a towne.But againſt the gulfe of Carthage be the two *Æginori, rockes more like than Iſlands,lying moſt betweene Sicilie and Sardinia.There bee that write how theſe ſometime were inhabited,but afterwards ſunke downe and were covered. G

Chap. viii.

& *The Æthyopians.*

BVt within the inner compaſſe and hollow of Affricke toward the South,and above the Gætulians,where the deſarts come betweene, the firſt people that inhabite thoſe parts, bee the Libij Ægyptij, and then the Leucæthiopes.Above them are the Æthyopian nations,to wit H the Nigritæ,of whom the river tooke name: the Gymetes,Pharuſi, and thoſe which now reach to the Ocean, whome wee ſpake of in the marches of Mauritania, namely,the Perorſi.From all theſe, it is nothing but a wilderneſſe Eaſtward, till you come to the Garamantes, Augylæ, and Troglodites,according to the moſt true opinion of them,who place two Æthyopiaes above the deſerts of Affricke: and eſpecially of *Homer*, who ſaith, that the Æthyopians are devided two waies,namely,Eaſt and Weſt.The river Nyger is of the ſame nature that Nilus.It bringeth forth Reed and Papyr,breedeth the ſame living creatures,and riſeth or ſwelleth at the ſame ſeaſons. It ſpringeth betweene the Tareleia Æthyopians, and the Oecalicæ. The towne Mavin belonging to this people, ſome have ſet upon the wilderneſſe: as alſo, neere unto them, the Atlantes, the Ægipanes,halfe wild beaſts,the Blemmyi,the Gamphaſants,Satyres,&Himantopodes. Thoſe I Atlantes,if we will beleeve it,degenerate from the rites and manners of all other men: for neither call they one another by any name:and they looke wiſtly upon the ſunne,riſing and ſetting, with moſt dreadfull curſes,as being pernicious to them and their fields: neither dreame they in their ſleepe,as other men.The Troglodites dig hollow caves, and theſe ſerve them for dwelling houſes: they feed upon the fleſh of ſerpents. They make a gnaſhing noiſe,rather than utter any voice,ſo little uſe have they of ſpeech one to another.The Garamants live out of wedlocke, and converſe with their women in common.The Augylæ do no worſhip to any but to the devils beneath.The Gamphaſantes be all naked,and know no warres,and ſort themſelves with no forrainer. The Blemmyi, by report, have no heads, but mouth and eies both in their breaſt. The Satyres beſides their ſhape onely,have no properties nor faſhions of men. The Ægipanes are ſhaped,as you ſee them commonly painted. The Himantopodes bee ſome of them limberlegged K and tender,who naturally goe creeping by the ground.The Pharuſi,ſometime Perſæ,are ſaid to have been the companions of *Hercules*,as he went to the Heſperides.More of Affrike worth the noting,I have not to ſay.

Chap. ix.

& *Of Aſia.*

VNto it joineth Aſia,which from the mouth of Canopus unto the mouth of Pontus, after *Timoſthenes* 2639 miles.From the coaſt of Pontus to that of Mæotis,*Eratoſthenes* ſaith, is E 1545 miles. The whole,together with Ægypt unto Tanais,by *Artemidorus* and *Iſidorus*, taketh 8800 miles.Many ſeas there bee in it,taking their names of the borderers: and therefore they ſhall be declared together with them. The next countrey to Affrike inhabited,is Ægypt,lying farre within forth to the South, ſo farre as the Æthyopians, who border upon their backes. The nether part thereof the river Nilus, divided on the right hand and the left, by his claſping doth bound and limit,with the mouth of Canopus from Affricke, with the Peluſiake from Aſia, and carrieth a ſpace betweene of 170 miles. Whereupon, conſidering that Nilus doth ſo part it ſelfe,ſome have reckoned Ægypt among the Iſlands,ſo as it maketh a triangle figure of the land. And here it is that many have called Ægypt by the name of the Greek letter Delta,Δ. The meaſure of it from the channell where it is but one, and from whence it beginneth firſt to part into M skirts and ſides,unto the mouth of Canopus,is 146 miles:and to the Peluſiake 256.The upmoſt part thereof bounding upon Æthyopia, is called Thebais. Divided it is into townеſhips with ſeverall juriſdictions,which they cal Nomos,to wit,Ombites,Phatuites,Apollopolites,Hermonhites, Thinites, Phanturites, Captites, Tentyrites, Dioſpalites, Antæopolites, Aphroditopolites,

A lites,and Lycopolites.The countrey about Peluſium, theſe townes hips with their ſeverall juris-dictions,Pharbœtites,Bubaſtites,Sethroites,and Tanites. The reſt have theſe following,the Arabicke, the Hammoniacke which extendeth to the Oracle of *Iupiter Hammon*, Oxyrinchites, Leontopolites,Atarrhabites,Cynopolites,Hermopolites,Xoites,Mendeſins, Sebennites, Capaſtites,Latopolites,Heliopolites,Proſopites, Panopolites, Buſirites,Onuphites, Sorites,Ptenethu,Pthemphu,Naucratites,Nitrites,Gynæcopolites,Menelaites,in the country of Alexandria . In like manner of Libya Mareotis. Heracleopolites is in the Iſland of Nilus, fiftie miles long,wherein alſo is that which they call *Hercules* his towne. Two Arſinoites there bee, they and Memphites reach as farre as to the head of Delta. Vpon it there doe bound out of Affrica the two Quafitæ. There be that change ſome names of theſe, and ſet downe for them other juriſdi-
B ctions,to wit,Heroopolites,and Crocodilopolites. Betweene Arſinoites and Memphites there was a lake 250 miles about,or as *Mutianus* ſaith,450,fiftie paces deepe,[*i.*150 foot,] & the ſame made by mans hand, called the Lake Mæridis, of a king who made it. 72 miles from thence is Memphis,the caſtle in old time of the Ægyptian kings. From which to the Oracle of *Hammon* is twelve daies journey,and ſo to the deviſion of Nilus,which is called Delta,fifteene miles. The river Nilus ariſing from unknowne ſprings,paſſeth through deſarts and hote burning countries: and going thus a mightie way in length,is knowne by fame onely,without armes,without warres which have diſcovered and found out all other lands.It hath his beginning,ſo farre forth as *Iuba* was able to ſearch and find out,in a hill of the lower Mauritania,not far from the Ocean, where a lake preſently is ſeene to ſtand with water, which they call Nilides. In it are found theſe fiſhes,
C called Alabetæ, Coracini, Siluri,and the Crocodile.Vpon this argument and preſumption Nilus is thought to ſpring from hence, for that the pourtraict of this ſource is conſecrated by the ſaid prince at Cæſarea,in Iſeum,and is there at this day ſeene. Moreover, obſerved it is,that as the Snow or raine doe ſatisfie the countrey in Mauritania,ſo Nilus doth encreaſe. When it is run out of this lake,it ſcorneth to run through the ſandie and overgrown places,and hideth himſelfe for certaine daies journey . And then ſoone after out of a greater lake, it breaketh forth in the countrey of the Maſſæſyli,with Mauritania Cæſarienſis,and looketh about viewing mens compa-nie,carrying the ſame arguments ſtill of living creatures bred within it.Then,once againe being received within the ſands, it is hidden a ſecond time for twentie daies journey, in the deſarts as farre as to the next Æthyopes: and ſo ſoone as hee hath once againe eſpied a man, forth hee
D ſtarteth(as it ſhould ſeeme)out of that Spring,which they called Nigris. And then deviding Affrick from Æthyopia,being acquainted,if not preſently with people,yet with the frequent companie of wild and ſavage beaſts,and making ſhade of woods as he goeth,he cutteth through the middeſt of the Æthyopians: there ſurnamed Aſtapus, which in the language of thoſe nations ſignifieth a water flowing out of darkeneſſe. Thus daſheth hee upon ſuch an infinite number of Iſlands, and ſome of them ſo mightie great,that albeit he beare a ſwift ſtreame,yet is he not able to paſſe beyond them in leſſe ſpace than five daies. About the goodlieſt and faireſt of them Meroe,the chanell going on the left hand is call Aſtabores,that is to ſay,the branch of a water comming forth of darkeneſſe: but that on the right hand Aſtuſapes, which is as much as,Lying hid, to the former ſignification. And never taketh the name of Nilus, before his waters meet againe
E and accord all whole together.And even ſo was he aforetime named Siris,for many miles ſpace: and of *Homer* altogether Ægyptis:and of others,Triton: here and there,and ever and anon hitting upon Iſlands,and ſtirred as it were with ſo many provocations: and at the laſt encloſed and ſhut within mountaines,and in no place carrieth he a rougher and ſwifter ſtreame,whiles the water that he beareth,haſteneth to a place of the Æthyopians called Catadupi, where in the laſt fall amongſt the rockes that ſtand in his way,hee is ſuppoſed not to runne, but to ruſh downe with a mightie noiſe.But afterwards he becommeth more mild and gentle,as the courſe of his ſtreame is broken,and his violence tamed and abated, yea,and partly wearied with his long way: and ſo though with many mouths of his, he diſchargeth himſelfe into the Ægyptian ſea. Howbeit, at
F certaine ſet daies he ſwelleth to a great heigth: and when he hath travailed all over Ægypt, hee overfloweth the land,to the great fertilitie and plentie thereof.Many and divers cauſes of this riſing and increaſe of his,men have given: but thoſe which carrie the moſt probabilitie, are either the rebounding of the water,driven backe by the winds Eteſiæ,at that time blowing againſt it,and driving the ſea withall upon the mouths of Nilus:or elſe the Summer raine in Æthyopia, by reaſon that the ſame Eteſiæ bring clouds thither from other parts of the world. *Timæus* the

Mathematician, alledged an hidden reason thereof, to wit, that the head and source of Nilus is named Phiala, and the river it selfe is hidden, as it were drowned within certaine secret trenches within the ground, breathing forth vapours out of reeking rockes, where it thus lieth in secret. But so soone as the Sunne during those daies, commeth neere, drawne up it is by force of heat, and so all the while he hangeth aloft, overfloweth: and then againe for feare he should bee wholly devoured and consumed, putteth in his head againe, and lieth hid. And this happeneth from the rising of the Dog starre Sicinus, in the Sunnes entrance into Leo, while the Planet standeth plumbe over the fountaine aforesaid: for as much as in that climate there are no shadowes to be seene. Many againe were of a different opinion, that a river floweth more abundantly, when the Sunne is departed toward the North pole, which happeneth in Cancer and Leo: and therefore at that time is not so easily dried: but when he is returned once againe backe toward Capricorn and the South pole, it is drunke up, and therefore floweth more sparily. But if according to *Timæus* a man would thinke it possible that the water should be drawne up, the want of shaddowes during those daies, and in those quarters, continueth still without end. For the river beginneth to rise and swell at the next change of the Moone after the Sunne steed, by little and little gently, so long as he passeth through the signe Cancer, but most abundantly when he is in Leo. And when he is entred Virgo, he falleth and settleth low againe, in the same measure as he rose before. And is cleane brought within his bankes in Libia, which is, as *Herodotus* thinketh, by the hundreth day. All the whiles it riseth, it hath beene thought unlawfull for kings or governours to saile or passe in any vessell upon it, and they make conscience so to doe. How high it riseth, is knowne by markes and measures taken of certaine pits. The ordinarie heigth of it is sixteene cubites. Vnder that gage the waters overflow not all. Above that stint, there are a let and hinderance, by reason that the later it is ere they bee fallen, and downe againe. By these, the seed time is much of it spent, for that the earth is too wet. By the other there is none at all, by reason that the ground is drie and thirstie. The province taketh good keepe and reckoning of both, the one as well as the other. For when it is no higher than 12 cubites, it findeth extreame famine: yea, and at 13 it feeleth hunger still, 14 cubites comforts their hearts, 15 bids them take no care, but 16 affoordeth them plentie and delicious dainties. The greatest floud that ever was knowne untill these daies, was 18 cubites, in the time of prince *Claudius* Emperor: and the least, in the Pharsalian warre, against the death of *Pompey*: as if the very river by that prodigious token abhorred to see the same. When at any time the waters seeme to stand and cover the ground still, they are let out at certaine sluces or floud-gates drawne up and set open. And so soone as any part of the land is freed from the water, streight waies it is sowed. This is the onely river of all others that breatheth out no wind from it. The Seignorie and dominion of Ægypt beginneth at Syene, the frontier town of Æthyopia. For that is the name of a demie Island a hundred miles in compasse, wherin are the Cerastæ upon the side of Arabia: and overagainst it the foure Islands Philæ, 600 miles from the partition of Nilus, where it began to be called Delta, as we have said. This space of ground hath *Artemidorus* delivered, and withall, that within it were 250 townes. *Iuba* setteth down 400 miles. *Aristocreon* saith, That from Elephantis to the sea is 750 miles. This Elephantis being an Island, is inhabited beneath the lowest cataract or fall of water three miles, and above Syene 16: and it is the utmost point that the Ægyptians saile unto: and is from Alexandria 586 miles. See how farre the authors above written, have erred and gone out of the way: there meet the Æthyopian ships, for they are made to fold up together, and carrie them upon their shoulders, so often as they come to those cataracts or downefals aforesaid. Ægypt, over and above all other their boast and glorie of antiquitie, brags that in the reigne of king *Amasis*, there were inhabited in it and peopled twentie thousand cities. And even at this day full it is of them, such as they be, and of base account. Howbeit, that of *Apollo* is much renowned, as also neere unto it another of Leucathea, and *Diospolis the great, the very same that Thebes, famous for the hundred gates in it. Also, Captos, a great mart towne next to Nilus, much frequented for merchandise & commodities out of India & Arabia. Moreover, the town of *Venus*, and another of *Iupiter*, and Tentyris, beneath which standeth Abydus, the roiall seat of *Memnon*, and Osiris renowmed for the temple there, seven miles and an halfe distant from the river, toward Lybia. Then Ptolemais, Panopolis, and another yet of *Venus*. Also in the Lybian coast, Lycon, where the hill doe bound Thebais. Soone after, these townes of *Mercurie*, Alabastron, Canum, and that of *Hercules* spoken of before. After these, Arsinoe, and the aboveside Memphis, betweene which

*i. The citie of *Iupiter*.

and

A and the dioceſe Arſinoetis, in the Lybian coaſt, the towres called Pyramides, the Labyrinth built up in the lake of Mœris without any jote of timber to it, and the towne Crialon. One more beſides, ſtanding within-forth and bounding upon Arabia, called The towne of the Sunne, of great account and importance.

Chap. X.

❧ *Alexandria.*

BVt right worthy of praiſe is Alexandria, ſtanding upon the coaſt of the Ægyptian ſea, built by *Alexander* the Great on Africke ſide, 12 myles from the mouth of Canopus, neare to
B the lake Mareotis: which was before-time called * Arapotes. *Dinochares* the Architect, (a man renowmed for his ſingular wit many waies) laid the modell and platforme thereof by a ſubtill and wittie deviſe: for having taken up a circuit of 15 miles for the cittie, hee made it round like to a Macedonian cloke, full in the skirts, bearing out into angles and corners, as well on the left hand as the right, ſo as it ſeemed to lye in folds and plaits; and yet even then he ſet out one fift part of all this plot for the kings pallace. The lake Mareotis from the South ſide, meeteth with an arme of the river Nilus, brought from out of the mouth of the ſaid river called Canopicus: for the more commodious trafficke and commerce out of the firme ground and inland Continent. This lake containeth within it ſundry Ilands, and (according to *Claudius Cæſar*) it is thirtie miles over. Others ſay, that it lyeth in length fortie Schœni, and ſo, whereas every Schœne
C is 30 ſtadia, it commeth by that account to be 150 myles long, and as many broad. Over and beſides, there be many goodly faire townes of great importance, ſtanding upon the river Nilus where he runneth, and thoſe eſpecially which have given name to the mouthes of the river, and yet not to all thoſe neither (for there be 11 of them in all, over and beſides foure more, which they themſelves call baſtard mouthes) but to 7 of the principall: to wit, upon that of Canopus, next to Alexandria; then Bolbitinum, and ſo forth to Sebenniticum, Phatuiticum, Mendeſicum, Taniticum, and laſt of all Peluſiacum. Other cities there be beſides, to wit, Buros, Pharbœtos, Leontopolis, Achribis, Iſis towne, Buſiris, Cynophis, Aphrodites, Saïs, Naucratis, of which ſome thinke the mouth Naucraticum tooke the name, which they be that call Heracleoticum, preferring it before Canopicum, next unto which it ſtandeth.

* or Rachobeb.

D

Chap. XI.

❧ *Arabia [the Deſert or Petræa.]*

BEing once paſt that arme of the river Nilus, which entreth into the ſea at Peluſium, you come into Arabia, confining upon the red Sea: and that other Arabia, ſo rich and odoriferous, and therefore renowmed with the ſurname of Happie. As for this Deſert Arabia, poſſeſſed it is by the Catabanes, Esbonites, and Screnite Arabians: all barren and fruitleſſe, ſave whereas it meeteth with the confines of Syria, and ſetting aſide the mountaine Caſius, nothing memorable. This region confronteth the Arabians Canchlei on the Eaſt ſide, and the
E Cedræi Southward, and they both confine together afterwards upon the Nabathæes. Moreover, two Baies there be, the one called, The gulfe of Heroopolis, and the other of Elani: both in the red ſea on the coaſt of Ægypt, 150 miles diſtant, betweene two townes, Elana and Gaza, which is in our [Mediteranean] ſea. *Agrippa* counteth from Peluſium to Atſinoe, a towne ſituate upon the red ſea, an hundred and five and twentie miles. See how ſmall a way lyeth between two Climates ſo different in nature.

Chap. XII.

❧ *Syria, Paleſtine, Phœnice.*

F VPon the coaſt of the ſaid Arabia, confineth Syria; a Region in times paſt, the chiefe and moſt renowmed upon earth: and the ſame diſtinguiſhed by ſundrie names. For where it confineth upon the Arabians, called it was Palæſtina, Iurie, Cœle-Syria, and afterward, Phœnice: But goe farther within the firme land, Damaſcene. Turne more ſtill Southwards, it is named Babylonia. And the ſame, between the rivers Euphrates and Tygris, carrieth the name

of Mesopotamia. Beyond the mountaine Taurus, it is Sophene: but on this side the hill, they call Comagene. The countrey beyond Armenia, is Adiabenæ, named before time Assyria: but the marches of Syria which confront Cilicia, is knowne by the name of Antiochia. The whole length of Syria, from the frontiers of Cilicia to Arabia, containeth 470 miles: the bredth betweene Seleucia Pieria, to Zeugina a towne seated upon Euphrates, taketh 175 miles. They that make a more subtill and particular division, would have Phœnice to be environed with Syria. And first, as you come from Arabia, is the sea-coast of Syria, which compriseth in it Idumæa and Iudæa: then, you enter into Phœnicia, and so into Syria again, when you are past Phœnicia. And within-forth farther into the countrey, Phœnice is enclosed with Syria Damascena. All that sea yet, which beateth upon that coast, beareth the name of the Phœnician sea. As for the nation it selfe of the Phœnicians, have been highly reputed for their Science and learning, and namely, for the first invention of letters, for their knowledge in Astrologie, navigation, and martiall skill. Being past Pelusium, you come to a citie called Chabriæ Castra to the mountain Casius, and the temple of *Iupiter Casius*: also the tombe of *Pompeius Magnus*; and last of all to the citie Ostracium. To conclude, from Pelusium to the frontiers of Arabia the Desert [along the coast of Syria] are 65 miles.

Chap. xiii.

Idumæa, Syria, Palæstina, Samaria.

Soon after, beginneth Idumæa & Palestina, even from the rising up of the lake Sirbon, which some have reported to carie a circuit of 150 miles. *Herodotus* saith, it is hard under the foot of the hill Casius: but at this day it is but a small lake. As for the townes there, they be Rhinocolura, and more within the land, Rhaphæa: also Gaza a port towne, and farther within, Anthedon, and the mountain Angoris. From thence you discend to the coasts of Samaria, the free citie Ascalon, and Azotus: the two Iamnes, whereof the one is well within the land; and so forward to Ioppe, a towne in Phœnicia, which by report, is more auncient than the deluge. Situate it is upon an hill, with a rocke before it, wherein are to be seene the tokens and reliques of ladie *Andromedaes* prison where she was bound. Within a chappell there, the Siren *Decreto*, whereof the Poets tell such tales, is worshipped. Being past Ioppe, you meet with Apollonia: the towne of Strato, called also Cæsarea, founded by king *Herode*: it beareth now the name of Prima Flavia, a colonie there planted and endowed with priviledges by *Vespasian* the Emperor. The bounds of Palæstina be 180 miles from the confines of Arabia: and there entreth Phœnice. Within-forth in the countrey, are the townes of Samaria, and Neapolis, which beforetime was named Mamortha [or Maxbota.] Also Sebaste upon the mountaine, and Gamala, which yet standeth higher than it.

Chap. xiiii.

Iurie and Galilæa.

Above Idumæa and Samaria, Iudæa spreadeth out farre in length and breadth. That part of it which joyneth to Syria, is called Galilæ: but that which is next to Syria and Ægypt, is named Peræa, [*i.* beyond Iorden:] full of rough mountaines dispersed here and there: and severed it is from other parts of Iurie, by the river Iordan. As for the rest of Iudæa, it is divided into ten governments or territories, called Toparchies, in this order following: to wit, that of Hiericho, a vale richly planted with date trees: Emmaus, well watered with fountaines: Lydda, Ioppica, Accrabatena, Gophnitica, Thamnitica, Betholene, Tephenæ, and Orine, wherein stood Hierusalem, the goodliest citie of all the East parts, and not of Iurie onely. In it also is the principalitie Herodium, with a famous towne of that name.

Chap. xv.

Iordane the river.

The river Iordan springeth from the fountaine Paneades, which gave the surname to the citie Cæsarea, whereof wee will speake more. A pleasant river it is, and as the site of the countrey will permit and give leave, winding and turning in and out, seeking as it were for

love

A love and favour, and applying it selfe to please the neighbour inhabitants. Full against his will, as it were, he passeth to the lake of Sodome, Asphaltites, that ill-favoured and cursed lake: and in the end falleth into it, and is swallowed up of it, where amongst those pestilent and deadly waters, he looseth his owne that are so good and wholsome. And therefore to keepe himselfe out of it as long as hee possibly could, upon the first opportunitie of any valleys, hee maketh a lake, which many call Genesara, which is 16 miles long, and sixe broad. The same lake is environed with divers faire and beautifull townes, to wit, on the East side, with Iulias and Hippo; on the South, with Tarichea, of which name, the lake by some is called Tarichian: and on the West, with Tiberias, an healthfull place for the baines there of hote waters.

B

Chap. xvi.

Asphaltites.

Asphaltites, or the lake of Sodome, breedeth and bringeth forth nothing but Bitumen; and thereupon it tooke the name. No living bodie of any creature doth it receive into it: bulls and camels swim and flote aloft upon it. And hereupon ariseth that opinion which goeth of it, That nothing there will goe downe and sinke to the botome. This lake in length exceedeth 100 miles, 25 miles over it is at the broadest place, and sixe at the narrowest. On the East, the Arabian Nomades confront it; and on the South side, Machærus regardeth it: in time past, the second fortresse of Iudæa, and principall next to Ierusalem. On the same coast, there is a fountaine
C of hote waters, holsome and medicinable, named Callirhoe, and good against many diseases. The very name that it carrieth, importeth no lesse praise and commendation.

Chap. xvii.

The people Esseni.

ALong the West coast, inhabite the Esseni. A nation this is, living alone and solitarie, and of all others throughout the world most admirable and wonderfull. Women they see none: carnall lust they know not: they handle no money: they lead their life by themselves, and keepe companie onely with Date trees. Yet nevertheless, the countrey is evermore
D well peopled, for that daily numbers of straungers resort thither in great frequencie from other parts: and namely, such as be wearie of this miserable life, are by the surging waves of frowning fortune driven hither, to sort with them in their manner of living. Thus for many thousand yeers [a thing incredible, and yet most true] a people hath continued without any supply of new breed and generation. So mightily encrease they evermore, by the weariſome estate and repentance of other men. Beneath them, stood sometime Engadda, for fertilitie of soile and plentie of Date-tree groves, accounted the next citie in all Iudæa, to Ierusalem. Now, they say, it serveth for a place onely to interre their dead. Beyond it, there is a castle or fortresse situate upon a rocke, and the same not farre from the lake of Sodome Asphaltites. And thus much as touching Iudæa.

E

Chap. xviii.

Decapolis. [i. Cæle-Syria.]

THere joyneth unto it on Syria side, the region Decapolis, so called of the number of towns and cities in it. Wherein, all men observe not the same, nor make like account: howbeit most men speake of Damascus and Opotos, watered with the river Chrysorrhoa. Also, Philadelphia, renowmed for the fruitfull territorie about it. Moreover, of Scythopolis, taking name of the Scythians there planted: and beforetime Mysa, so named of Prince or Father *Bacchus*, by reason that his nource there was buried. Also Gadara, situate upon the river Hieromiax, running even before it. Besides, the above-named Hippos Dios. Likewise Pella, enriched with
F the good fountaines: and last of all, Galaza and Canatha. There lye betweene and about these cities, certaine Royalties called Triarchies, containing every one of them as much as an whole countrey: and reduced they be as it were into severall countries, namely, Trachonitis Paniæas, wherein standeth Cæsarea, with the fountaine above-said, Abila, Arca, Ampeloessa, and Gabe.

Chap. xix.

& *Tyre and Sidon.*

REturne now we muſt to the ſea-coaſt of Phœnice. A river runneth there called Crocodilon, whereupon ſtood a towne in times paſt bearing the name. Alſo there remaine in thoſe parts the bare reliques ſtill of cities, to wit, Dorum, Sycaminum, the cape or promontorie Carmelum: and a towne upon the hill, ſo named; but in old time called Ecbatana. Nere thereto Getta and Iebba: the river Pagida or Pelus, carrying chryſtall glaſſe with his ſands upon the ſhore. This river commeth out of the meere Ceudevia, from the foot of mount Carmell. Nere unto it is the citie Ptolemais, erected in forme of a colonie, by *Claudius Cæſar*; in auncient time called Are. The towne Ecdippa, and the cape Album. Then followeth the noble citie Tyrus, in old time an Iland, lying almoſt 3 quarters of a mile within the deepe ſea: but now, by the great travaile and deviſes wrought by *Alexander* the Great at the ſiege thereof, joyned to the firme ground: renowmed, for that out of it have come three other cities of ancient name, to wit, Leptis, Vtica, and that great Carthage, which ſo long ſtrove with the Empire of Rome for the monarchie and dominion of the whole world: yea and Gades, divided as it were from the reſt of the earth, were peopled from hence. But now at this day all the reputation and glory thereof, ſtandeth upon the dye of purple and crimſen colours. The compaſſe of it is 19 miles, ſo ye compriſe Palætyrus within it. The very towne it ſelfe alone, taketh up 22 ſtadia. Neere unto it are theſe townes, Luhydra, Sarepta, and Ornithon: alſo Sydon, where the faire and cleer glaſſes be made, and which is the mother of the great citie Thebes in Bœotia.

Chap. xx.

& *The mount Libanon.*

BEhind it, beginneth the mount Libanus, and for 1500 ſtadia reacheth as farre as to Smyrna, whereas Cœle-Syria taketh the name. Another promontorie there is as bigge over-againſt it, called Antilibanus, with a valley lying betweene, which in old time joyned to the other Libanus with a wal. Being paſt this hil, the region Decapolis ſheweth it ſelfe to you withinforth, called Decapolis; and the above-named Tetrarchies or Realmes with it, and the whole largeneſſe that Paleſtine hath. But in that coaſt and tract ſtill along the foot of the mount Libanus, there is the river Magoras: alſo the colonie Berytus, called Fœlix Iulia. The towne Leontos; the river Lycos: alſo Palæbyblos, [*i.* Byblos the old.] Then ye come upon the river Adonis; and ſo to theſe townes, Byblos [the new,] Botrys, Gigarta, Trieris, Calamos, and Tripolis, under the Tyrians, Sydonians, and Aradians. Then meet you with Orthoſia, and the river Eleutheros. Alſo theſe townes, Simyra, Marathos; and over-againſt, Aradus, a towne of ſeven ſtadia: and an Iland leſſe than a quarter of a mile from the Continent. When you are once paſt the countrey where the ſaid mountaines doe end, and the plaines lying betweene, then beginneth the mount Bargylis: and there, as Phœnice endeth, ſo begins Syria againe. In which countrey, are Carne, Balanea, Paltos, and Gabale: alſo the promontorie, wherupon ſtandeth the free citie Laodicea, together with Dioſpolis, Heraclea, Charadrus, and Poſidium.

Chap. xxi.

& *Syria Antiochena.*

GO forward in this tract, and you ſhall come to the cape of Syria Antiochena: withinforth is ſeated the noble and free citie it ſelfe Antiochena, ſurnamed Epidaphne: through the mids whereof runneth the river Orontes. But upon the very cape, is the free citie Seleucia, named alſo Pieria.

Chap. xxii.

& *The mount Caſius.*

ABove the citie Seleucia, there is another mountaine named Caſius, as well as that other, which confronteth Arabia. This hill is of that heigth, that if a man be upon the top of it in the darke night ſeaſon, at the reliefe of the fourth watch, he may behold the Sunne ariſing.

A ſing. So that with a little turning of his face and bodie, hee may at one time, ſee both day and night. To get up by the ordinarie high way to the verie pitch of it, a man might fetch a compaſſe of 19 miles; but climbe directly upright, it is but foure miles. In the borders of this countrey, runneth the river Orontes, which ariſeth betweene Libanus and Antilabanus, neere to Heliopolis. Then, the towne Rhoſos appeareth: and behind it, the ſtreight paſſages and gullets betweene the mountaines Rhoſij and Taurus, which are called Portæ Syriæ. In this tract and coaſt, ſtandeth the towne Myriandros, the hill Avanus (where is the towne Bomilæ) which ſeparateth Cilicia from the Syrians.

Chap. xxiii.

B

Cœle-Syria, [or high Syria.]

It remaineth now, to ſpeake of the townes and citties in the mid-land parts within the firme land. And to begin with Cœle-Syria, it hath in it Apamia, ſeparated from the Nazerines Tetrarchie by the river Marſia: likewiſe Bambyce, otherwiſe called Hierapolis; but of the Syrians, Magog. There, is honoured the monſtrous Idoll of the Meermaid, Atargatis, called of the Greeks, Decreto. Alſo Chalcis with this addition, Vpon Belus: from which, the region Chalcidene, which is moſt fertile of all Syria, taketh name. Then have you the quarter Cyrrhiſtica, with Cirrhus, Gazatæ, Gindarenes, and Gabenes. Moreover, two Tetrarchies, called Granucomatæ. Over and beſides, the Hemiſenes, Hylates, the Ituræans countrie, (and principally thoſe of them
C who are named Betarrani) & the Mariamnitanes. The Tetrarchie or Principalitie, named Mammiſea: the citie Paradiſus, Pagræ, Pinarites, and two Seleuciæ, beſides the above-named, one called Vpon Euphrates, and the other, Vpon Belus: and laſt of all, the Carditenſes. The reſt of Syria, hath theſe States (over and above thoſe which ſhall be ſpoken of with the river Euphrates) the Arethuſians, Beræenſes, and Epiphanenſes. And Eaſtward, the Laodicenes, namely, thoſe who are entituled, Vpon Libanus: the Leucadians, and Lariſſæans: beſides 17 Tetrarchies reduced into the forme of Realmes, but their names are but barbarous.

Chap. xxiiii.

D

Euphrates.

And here, me thinkes, is the fitteſt and meeteſt place to ſpeake of Euphrates. The ſource of it, by report of them that ſaw it laſt and neereſt, is in Caranitis, a State under the government of Armenia the greater: and thoſe are *Domitius* and *Corbulo*, who ſay, That it ſpringeth in the mountaine Aba. But *Licinius Mutianus* affirmeth, That it iſſueth from under the foot of the mountaine, which they call Capotes, 12 miles higher into the countrey, than is
E Simyra: and that in the beginning it was called Pyxirates. It runneth firſt directly to Derxene, and ſo forth to Ana alſo, excluding the regions Armeniæ, the greater as well as the leſſe, from Cappadocia. The Daſtuſæ from Simyra are 75 miles. From thence it is navigable to Paſtona, fiftie miles: from it to Melitene in Cappadocia, 74 miles. So forward to Elegia in Armenia, ten miles: where hee receiveth theſe rivers, Lycus, Arſania, and Arſanus. Neere to Elegia, hee meeteth afront with the hill Taurus: yet ſtayeth hee not there, but prevaileth and pierceth thorow it, although it beare a breadth there of twelve miles. At this entrie where hee breaketh thorough the hill, they call him Omiras: and ſo ſoone as he hath made way and cut through it, he is named Euphrates. And yet being paſt this mountaine, full of rockes hee is and very violent. Howbeit hee paſſeth through the countrey of the Mœri, where he carrieth a ſtreame of three Schœnes breadth, where hee parteth Arabia on the left hand, from Comagene on the right. And nevertheleſſe, even there whereas hee conquereth and getteth the upper hand of Taurus, he can abide a bridge to be made over him. At Claudiopolis in Cappadocia, hee taketh his courſe Weſtward. And now the mountaine Taurus, for all he was reſiſted and over-
F come at firſt, impeacheth and hindreth him of his way: and notwithſtanding (I ſay) hee was over-matched and diſmembred one peece from another, hee getteth the better of him another way, hee breaketh his courſe now, and drives him perforce into the South. Thus Nature ſeemeth to match the forces of theſe two champions equally in this maner, That as Euphrates goeth on ſtill without ſtay as far as he will, ſo Taurus will not ſuffer him yet to run what way he will.

Now

Now, when these Cataracts and downefals of the river are once past, navigable it is againe, and G
fortie miles from that place standeth Samosata the head cittie of all Comagene. Now, hath Arabia besides the towns aforesaid, Edessa, sometime called Antiochea, Callirhoe taking name of the fountaine: and Carræ so famous and renowned for the defeature there of *Crassus* and his armie. Hereunto joineth the government and territorie of Mesopotamia, which also taketh the first beginning from the Assyrians, in which stand the townes Anthemusa and Nicephorium. Having passed this countrey, streight waies yee enter upon the Arabians called Rhetavi, whose capitall cittie is Singara. Now to returne to Samosatæ, from it in the coast of Syria, the river Marsyas runneth into Euphrates. As Gingla limitteth Comagene, so the land of the Meri beginneth there. The townes Epiphania and Antiochia have the river running close to them, and hereupon they have this addition in their names, Standing upon Euphrates. Zenyma likewise H
72 miles from Samosatæ is ennobled for the passage over Euphrates: for joined it is to Apamia right against, by a bridge, which *Seleucus* the founder of both, caused to bee made. The people that joine hard to Mesopotamia, bee called Rhoali. As for the townes of Syria which bee upon this river, are Europum, Thapsacum in times past, at this present Amphipolis; and last of all the Arabian Scænitæ. Thus passeth Euphrates, as farre as to the land Vra, where, turning his course to the East he leaveth behind him the desarts of Palmyra in Syria, which reach to the cittie Petra and the countrey of Arabia called Happie.

Chap. xxv.
Palmyra. I

THe noble citie Palmyra is passing well seated, as well for the riches of the soile, as for that it hath water at commaundement, which embelish and set out the countrey on every side. As rich and long as it is, the territorie all about is environned and enclosed with barres of sands. And as if Nature had a desire to exempt it from all other lands to live apart in peace, shee hath set it just in the middest and confines betweene two puissant and mightie Empires, to wit, the Romanes and the Parthians. For there is not so soone any warre proclaimed betweene those two States and Monarchies, but at first they have on both sides a regard of it as a neutre. It is from Seleucia of the Parthians, namely that upon Tigris, 537 miles: and from the next port or coast of Syria 252: and from Damasco, 27 neerer. K

Chap. xxvi.
Hierapolis.

BEneath the desarts and wilderneſſe of Palmyra, lieth the countrey Stelendena, wherein are the citties named at this day Hierapolis, Bercœa and Chaleis. Beyond Palmyra also, Hemesa taketh up some part of those said desarts: and likewise Elutium, neerer to Petra by the one halfe than is Damascus. And next to Afura standeth Philiscum, a towne of the Parthians, upon Euphrates. From which by water it is a journey of tenne daies to Seleucia, and from thence as many likewise to Babylon. For Euphrates, foureſcore and three myles from Zeugma, about the village Massice, devideth it selfe into two armes: on the left side hee passeth into Mesopotamia, even through Seleucia, and about it entreth into the river Tygris that runneth L
hard by: but on the right hand, he carrieth a current in his channell toward Babylon, the cheefe cittie sometime of Chaldæa; and passing through the middest thereof, as also of another which they call Otris, hee parteth asunder into sundrie Lakes and Meeres. And there an end of Euphrates. Hee riseth and falleth at certaine times after the order of Nilus: yet some little difference there is betweene them in the manner, for he overfloweth Mesopotamia, when the Sunne is the 20 degree of *Cancer*, and beginneth againe to diminish and slake, when the Sunne is past *Leo*, and is newly entred into *Virgo*: so as in the 29 degree of *Virgo*, he is downe againe, and come to his ordinarie course.

Chap. xxvii.
Cilicia, and the nations adioining, to wit, Isauricæ, Homonades, Pisidia, Lycaonia, Pamphylia: the mountaine Taurus, and Lycia. M

BVt time it is to returne now to the coasts of Syria, and to Cilicia that confronteth it. Where in the first place we meet with the river Diaphanes, the mountaine Crocodilus, the streights

and

A and paſſages of the mount Amanus: more rivers alſo, to wit, Andricon, Pinarus and Lycus, together with the gulfe Iſſicus. The towne Iſſa ſtandeth upon it, then come wee to Alexandria, to the river Chlorus, the free towne Æge, the river Pyramus, and the ſtreights in the entrance to Cilicia. Beyond them we encounter the townes Mallos and Magarſos. As for Tarſos, it is more within the countrey. From this towne wee enter upon the plaines Aleij, and ſo forward to theſe townes, Caſſipolis and Mopſum, which is free, and ſtandeth upon the river Pyramus; Thynos, Zephyrium, and Anchialæ. On forth ſtill, and yee ſhall have the rivers Saros and Sydnus, which runneth through. Tarſus a free cittie, farre from the ſea: then are yee in the countrey Celeuderitis, together with the capitall towne thereof. And anon yee ſhall ſet foot in a place called Nymphæum, and Soloe Cilicij now Pompeiopolis, Adana, Cibira, Pinara, Pedalie, Halix, Arſinoe,
B Tabæ, and Doron: and neere the ſea ſide ye ſhall find a towne, an harbour and a cave, named all Corycos. Soone after, the river Calycadnus. The cape Sarpedon, the townes Olme and Mylæ; the cape and towne both of *Venus*, the very next harbour from whence men paſſe into the Iſle Cypres. But in the maine land ye ſhall find theſe townes, Myanda, Anemurium, Coraceſium: and the river Melas, the ancient bound that limitteth Cilicia. Farther within-forth are to be ſpoken of, the Anazarbenes, at this day Cæſar-Auguſtani; Caſtabla, Epiphania, beforetime Eniandos, Eleuſa, and Iconium. Seleucia upon the river Calicadmus, ſurnamed alſo Trachiotis, a citie removed backward from the ſea, where it was called Hormia. Furthermore, within the countrey, the rivers Liparis, Bombos, and Paradiſus. Laſt of all, the mountaine Iubarus. All Coſmographers have joined Pamphylia to Cilicia, and never regarded the nation Iſaurica. But a countrey
C it is by it ſelfe, having within it theſe townes, Iſaura, Clibanus, Lalaſſis. And it ſhooteth downe to the ſea ſide full upon the frontiers of the countrey Anemurium aboveſaid. In like ſort, as many as have ſet forth Maps and deſcriptions of the world, had no knowledge at all of the nation Homonades confining upon it, notwithſtanding they have a good towne within it, called Homona. Indeed the other fortreſſes to the number of 44, lie hidden cloſe among the hollow vallies and hils of that countrey. There inhabite the mountainers over their heads, the Piſidians ſometime called Sobymi, whoſe cheefe Colonie is Cæſarea, the ſame that Antiochia. Their townes be Oroanda, and Sagaleſſos. This nation is encloſed as it were within Lycaonia, lying within the juriſdiction of the leſſe Aſia: and even ſo together with it, the Philomelians, Tymbrians, Leucolithi, Pelteni, and Hyrienſes, reſort thither for law and juſtice. There is a government or tetrarchie
D alſo, but out of the quarter of Lycaonia, on that ſide that bordereth upon Galatia: unto which belong foureteene States or citties, whereof the principall is called Iconium. As for the nations of Lyconia, thoſe of any name, be Tembaſa upon Taurus, Sinda in the confines of Galatia and Cappadocia. But on the ſide thereof above Pamphilia, yee meet with Myliæ, deſcended in old time from Thrace, who have for their head cittie Aricanda. As for Pamphylia, it was in auncient time called Mopſopia. The Pamphylian ſea joineth to the Cilician. The townes ſituate upon that coaſt, be Side, Aſpendus on the hill, Plataniſtus, and Perga. Alſo the cape Leucolla, the mount Sardemiſus, the river Eurymedon running hard by Aſpendum. Moreover, Cataractes the river, neere unto which ſtand Lyrneſſus and Olbia; and the utmoſt towne of all that coaſt, Phaſelis. Faſt upon it lieth the Lycian ſea, and the nation of the Lycians, where the ſea maketh an huge
E great gulfe. The mountain Taurus likewiſe, confining upon the Levant ſea, doth limit Lycia and Cilicia, with the Promontorie Chelidonium. This Taurus is a mightie mountaine, and determineth as a judge an infinite number of nations. So ſoon as he is riſen from the coaſt of the Eaſt Indian ſea, he parteth in twaine: and taking the right hand, paſſeth Northward, and on the left hand Southward, ſomewhat bending into the Weſt: yea, and deviding Aſia through the mids: and (but that he meeteth with the ſeas) readie to ſtop up & dam the whole earth beſides. He retireth backe therefore, as being curbed, toward the North; fetching a great circuit, and ſo making himſelfe way, as if Nature of purpoſe oppoſed the ſeas eftſoones againſt him to barre him of his paſſage; of one ſide the Phœnician ſea, on another the great ſea of Pontus; the Caſpian and Hyrcanian ſeas likewiſe, and full againſt him the Lake Mœotis. And notwithſtanding all theſe
F barres, within which he is pent, twined, and wreſted, yet maketh hee meanes to have the maiſtrie and get from them: and ſo winding bias, hee paſſeth on, untill hee encounter the Riphæan hils, which are of his owne kind: and ever as he goeth, is entituled with a number of new names. For where hee firſt beginneth, called hee is Imaus: a little forward Emodus, Paropamiſus, Circius, Canibades, Parphariades, Choatras, Oreges, Oroandes, Niphates, and then Taurus. Howbeit,

where

where he is higheſt,and as it were,overreacheth himſelfe,there they name him Caucaſus: where G
he ſtretcheth forth his armes, like as if he would now and then be doing with the ſeas, hee changeth his name, to Sarpedon, Coraceſius, and Cragus: and then once againe hee taketh his former name Taurus,even where he openeth,and maketh paſſage as it were to let in the world. And yet for all theſe waies and ouvertures, he claimeth his owne ſtill,and theſe paſſages are called by the names of gates,in one place Armeniæ,in another Caſpiæ,and ſometime Ciliciæ. Over and beſides,when he is broken into parcels,and eſcaped farre from the ſea,he taketh many a name of diverſe and ſundrie nations on every ſide,for on the right hand he is termed Hyrcanus and Caſpius: on the left,Pariedrus,Moſchicus,Amazonicus,Coraxicus,and Scythicus. And generally throughout all Greece,Ceraunius.

To returne then to Lycia,being paſt the foreſaid cape there Chelidonium,yee come to the H
towne Simena,the hill Chimæra,which caſterh flames of fire every night, the cittie Hephæſtium,where the mountaines about it likewiſe oftentimes,are knowne to burne. Sometime the citie Olympus ſtood there, but now, nothing to bee ſeene but mountaines, and among them theſe townes,Gage,Corydalla,and Rhodiopolis. Vpon the ſea coaſt,the citie Lymira upon a river,unto which Arycandus runneth: alſo the mountaine Maſſyrites, the citties Andriara and Myra. Moreover,theſe towns,Apyre and Antiphellos,which ſometime was called Habeſſus,and more within-forth in a corner,Phellus. Then come ye to Pyrrha,and ſo forth to Xanthus,fifteen miles from the ſea,and to a river likewiſe of that name. Soone after ye meet with Patara,beforetime named Sataros,and Sydinia ſeated upon an hill,and ſo to the Promontorie Ciagus. Beyond which ye ſhall enter upon a gulfe as big as the former, upon which ſtandeth Pinara,and Telmeſſus, the I
utmoſt bound in the marches of Lycia. In auncient time Lycia had in it threeſcore townes, but now not above 36. Of which,the principall and of greateſt name beſides the abovenamed, bee Canæ, Candyba, where is the famous wood Oenium, Podalia, Choma upon the river Adeſa, Cyane,Aſcandalis,Amelas,Noſcopium,Tlos, and Telanorus. As for the midland parts of the maine,you ſhall find Chabalia, with three townes thereto belonging, Oenonda, Balbura, and Bubon.

When you are beyond Telmeſſus,you meet with the Aſiaticke ſea, otherwiſe called Carpathium,and this coaſt is properly called Aſia. *Agrippa* hath devided it in two parts, whereof the one by his deſcription confronteth upon Phrygia and Lycaonia,Eaſtward: but on the Weſt ſide it is limitted with the Ægean ſea. Southward it boundeth upon Ægypt: and in the North upon K
Paphlagonia. The length thereof by his computation,is 470 miles,the breadth 300. As for the other, hee ſaith, That Eaſtward it confineth upon Armenia the leſſe: Weſtward upon Phrygia, Lycaonia,and Pamphylia. On the North it butteth upon the province or realme of Pontus: and on the South ſide is encloſed with the Pamphylian ſea. He addeth moreover, That it containeth 575 miles in length, and 325 in breadth. The next coaſt bordering thereupon, is Caria: and when you are paſt it,Ionia,and beyond that,Æolis. As for Caria,it encloſeth Doris in the mids, environning it round on every ſide,as farre as to the ſea. In it is the Cape Pedalium, alſo the river Glaucus,charged with the river of Telmeſſus. The townes of any reſpect be Dædala and Crya, peopled onely with baniſhed perſons. Therein you find the river Axoum,and the towne Calydua. L

Chap. xxviii.

The river Indus.

THe river Indus,ariſing from the mountaines of the Cybirates,receiveth into it threeſcore other running rivers maintained with ſprings, of other ſmall rivers and brookes fed with land flouds,above an hundred. Vpon it ſtandeth the free towne Caunos,and a little off,Pyrnos. Soone after ye meet with the port Creſſa, overagainſt which is diſcovered the Iſland Rhodus,within the kenning of twentie myles. Being paſt that haven,you ſhall enter upon the plaine Loryma,upon which are ſeated the townes Tyſanuſa,Taridion, Larymna. Then meet you with M
the gulfe Thymnias and the cape Aphrodiſias: and on the other ſide of it the towne Hyda, and another gulfe Schœnus. Then followeth the countrey Bubaſſus,wherein ſtood in auncient time the towne Acanthus,otherwiſe called Dulopolis. Alſo upon the cape there,the free cittie Gnidos,Triopia,then Peguſa, called likewiſe Stadia. Beyond which you enter into the countrey of

Doris.

A Doris. But before we paſſe farther, meet it were to ſpeake of thoſe cities and States which are in the midland countrey, and which lie behind: and namely of one, named Cibiratica. The towne it ſelfe is in Phrygia, and to it reſort for law and juſtice 25 citties.

Chap. xxix.

Laodicea, Apamia, Ionia, Epheſus.

THe principall cittie in thoſe quarters (of the Cibirates) is Laodicea. Seated it is upon the river Lycus: and yet there run hard to the ſides thereof two other rivers, Aſopus, and Caper. This citie in times paſt was called Dioſpolis, and afterwards Rhoas. The other nations
B belonging to that juriſdiction of the Cibirates, worth the naming, be the Hydrelites, Themiſones, and Hierapolites. Another countie-court or towne of reſort there is, which taketh the name of Synnada: and to it repaire for juſtice, the Licaonians, Appians, Encarpenes, Dorylæi, Midæi, Iulienſes, and other States of no great reckening, fifteene. A third Seignorie or Shire there is that goeth to Apamia, which in old time was called Celænæ, and afterwards Ciboron: ſituate it is at the foot of the hill Signia, environed with three rivers, Marſyas, Obrima, and Orga, falling all into the great river Mæander. As for the river Marſyas (which a little from his ſpring was hidden under the ground, where as *Marſyas* the muſician ſtrove with *Apollo* in playing upon the flute) ſheweth himſelfe againe in Aulocrenæ, for ſo is the valley called, ten miles from Apamia, as men travaile the high way to Phrygia. Vnder this juriſdiction, we ſhould doe well to
C name the Metropolites, Dionyſopolites, Euphorbenes, Acmoneſes, Peltenes, and Silbians. There are beſides, to the number of 60 ſmall townes of no account. But within the gulfe of Doris, there ſtand Leucopolis, Amaxites, Eleus, and Euthenæ. Moreover, other townes of Caria, Pitaium, Eutaniæ, and Halicarnaſſus. And to this cittie were annexed, as ſubject and homages by *Alexander* the Great, ſixe other townes, namely, Theangela, Sibde, Medmoſſa, Euranium, Pedaſium, and Telneſſum: which townes are inhabited between the two gulfes, Ceramicus, and Iaſius. From thence yee come to Myndus, and where ſometime ſtood Palæmyndus, Neapolis, Nariandus, Carianda, the free citie Termera, Bergyla, and the town Iaſus which gave the name to the gulfe Iaſius. But Caria is moſt renowmed and glorious for the places of name within it in the firme land: for therein are theſe citties, to wit, Mylaſa free, and Antiochia, now ſtanding
D where ſometime were the townes, Seminethos, and Cranaos: and environed now it is about with the rivers Mæander, and Moſſinus. In the ſame tract ſtood ſometime Mæandropolis alſo. There is beſides, the citie Eumenia, upon the river Cludrus: the river Glaucus: the towne Lyſias, and Orthaſia. The tract or marches of Berecinthus, Nyſa, Tralleis, which alſo is named Euanthia, Seleucia, and Antiochia; which is ſituate upon the river Eudone that runneth hard by it, and Thebanis which paſſeth quite through it. Some there be, who report, that the dwarfes called Pigmæi, ſometime there dwelt. In which region beſides, were theſe townes, Thydonos, Pyrrha, Eurome, Heraclea, Amyzon, and the free citie Alabanda, whereof that ſhierewicke or juriſdiction tooke name. Alſo the free towne Stratonicea, Hynidos, Ceramus, Trœzene, and Phorontis. Yea there be nations farther remote, that reſort thither to plead and have juſtice in
E that Court: namely, the Othroniens, Halydiens or Hyppines, Xyſtianes, Hydiſſenſes, Apolloniates, Trapezopolites, and of free condition the Aphrodiſians. Over and beſides theſe, there are Coſſinus, and Harpaſa, ſituate upon the river Harpaſus, which alſo ran under Trallicon, when ſuch a towne there was. As for the countrey of Lydia, watered it is in many places with the recourſe of Mæanders ſtreame, winding and turning in and out, as his manner is: and it reacheth above Ionia: confining upon Phrygia in the Eaſt, upon Miſia in the North, and in the South ſide encloſing all the countrey of Caria. This Lydia was ſometimes named Mœonia. The capitall citie of this region, is Sardis, ſeated upon the ſide of the mountaine Tmolus, called beforetime Timolus, a hill well planted with vineyards. Moreover, renowmed is this countrey for the river Pactolus iſſuing forth of this mountaine; which river is called likewiſe Chryſorrhoa: as alſo for the fountaine Tarnes. The citie aboveſaid, was commonly by the Mœonias called Hyde,
F famous for the meere or lake of Gyges. All that juriſdiction is at this day called Sardinia. Thither reſort beſides the abovenamed, the Caduenes, deſcended from the Macedonians; the Lorenes, Philadelphenes, yea and the very Mœonians, ſuch as inhabite upon the river Cogamus at the foot of Tmolus; and the Tripolitanes who together with the Antoniopolites, dwell upon

the

the river Mæander. Furthermore, the Apollonos-Hieritæ, Myſotmolites, and others of ſmall reputation. G

Ionia beginneth at the gulfe Iaſius, and all the coaſt thereof is very full of creekes and reaches. The firſt gulfe or creeke therein is Baſilicus; and over it the cape Poſideum, and the towne called ſomtime, the Oracle of Branchidæ, but at this day, of Apollo Didymæus, 20 ſtadia from the ſea ſide. Beyond which 180 ſtadia, ſtandeth Milletus, the head cittie of Ionia, named in time paſt Lelegeis, Pityüſa, and Anactoria. From which, as from a mother citie, are deſcended more than eightie others, all built along the ſea-coaſt by the Milleſians. Neither is this citie to be defrauded of her due honour, for bringing forth that noble cittizen *Cadmus*, who deviſed and taught firſt to write in Proſe. Concerning the river Mæander, it iſſueth out of a lake at the foot of the mountaine Aulocrene: and paſſing under many towns, and filled ſtill with as many rivers running into it, it fetcheth ſuch windings to and fro, that oftentimes it is taken for to run backe againe from whence it came. The firſt countrey that it paſſeth through, is Apamia: and from thence it proceedeth to Eumenitica, and ſo forward through the plaines Bargylletici. Laſt of all, hee commeth gently into Caria, and when hee hath watered and overflowed all that land with a moſt fat and fruitfull mud that he leaveth behind him, about ten ſtadia from Miletus, hee diſchargeth himſelfe into the ſea. Neere to that river, is the hill Latmus: the citie Heraclea, ſurnamed Caryca, of an hill of that name: alſo Myus, which as the report goeth, was the firſt citie founded by the Ionians after their arrivall from Athens, Naulochum, and Pyrene. Alſo upon the ſea coaſt, the towne called Trogilia, and the river Geſſus. Moreover, this quarter all the Ionians reſort unto in their devotion, and therefore named it is Panionia. Neere unto it was built a priviledged place for all fugitives, as appeareth by the name Phygela: as alſo the towne Marathesium ſtood there ſometime: and above it, the renowmed cittie Magneſia, ſurnamed, Vpon Mæander; of the foundation of that other Magneſia in Theſſalie. From Epheſus it is 15 miles; and from Tralleis thither, it is three miles farther. Beforetime, called it was Theſſaloce, and Androlitia: and being otherwiſe ſituate upon the ſtrond, it tooke away with it other Ilands called Deraſides, and joyne them to the firme land from out of the ſea. More within the maine ſtandeth Thyatira (in old time called Pelopia and Euhippa) upon the river Lycus. But upon the ſea coaſt, yee have Manteium, and Epheſus founded in times paſt by the Amazones. But many names it had gone through before; for in time of the Trojane warre, Alopes it was called: ſoon after, Ortygia, and Morges: yea and it tooke name Smyrne, with addition of Trachæa, [*i.* rough] Samornium, and Ptelea. Mounted it is upon the hill Pione, and hath the river Cayſtrus under it, which commeth out of the Cilbian hills, and bringeth downe with it many other rivers, and principally is maintained and enriched with the lake Pegaſeum, which diſchargeth it ſelfe by reaſon of the river Phyrites that runneth into it. With theſe rivers he bringeth downe a good quantitie of mud, whereby he encreaſeth the land: for now alreadie a good way within the land, is the Iland Syrie, joyned to the Continent. A fountaine there is within the citie, called Callipia: and two rivers (hight both Selinus) comming from divers parts, environ the temple of *Diana*. After you have been at Epheſus, you come to another Manteium, inhabited by the Colophonians: and within, the country Colophon it ſelfe, with the river Haleſus under it. Then meet you with the noble temple of *Apollo Clarius*, and Lebedos. And in this quarter ſometime was to be ſeene the towne Notium. The promontorie alſo Coryceon is in this coaſt: and the mountaine Mimas, which reacheth out 250 miles, and endeth at length in the plaines within the continent that joyne unto it. This is the place, wherein *Alexander* the Great commaunded a trench ſeven miles long and an halfe to be cut through the plaine, for to joyne two gulfes in one, and to bring Erythree and Mimas together for to be environed round therewith. Neere this cittie Erythree were ſometimes the townes, Pteleon, Helos, and Dorion: now, there is the river Aleon, and the cape Corineum: upon the mount Mimas, Clazomene, Partheniæ, and Hippi called Chytophoria, having beene ſometime Ilands: the ſame, *Alexander* cauſed to be united to the firme land, for the ſpace of two ſtadia. There have periſhed within forth and beene drowned, Daphnus, Hermeſia, and Sipylum, called before-time Tantalis, notwithſtanding it had beene the chiefe citie of Mœonia, ſituate in that place, where now is the meere or lake Sale. And for that cauſe Archæopolis ſucceeded in that preeminence, and afrer it Colpe, and in ſtead thereof Lebade. As you returne from thence toward the ſea ſide, about twelve miles off, you come upon the cittie Smyrna, built by an Amazonite, but repaired and fortified by *Alexander* the Great. Si-

H I K L M

tuate

A tuate it is pleasantly upon the river Meles, which hath his head and source not farre off. The most renowmed hilles in Asia for the most part, spread themselves at large in this tract, to wit, Mastusia, on the backe side of Smyrna; and Termetis, that meeteth close to the foot of Olympus. This hill Olympus, taketh his end at the mountaine Tmolus; Tmolus at Cadmus; and Cadmus at Taurus. When you are past Smyrna, you come into certaine plaines, occasioned by the river Hermus, and therefore adopted in his name. This river hath his beginning neere unto Doryleus a citie of Phrygia, and taketh into it many other cities, and principally Phryge, which giveth name to the whole nation, and divideth Phrygia and Caria asunder. Moreover, Lyllus and Crios, which also are bigge and great by reason of other rivers of Phrygia, Mysia, and Lydia, which enter into them. In the verie mouth of this river stood somtime the towne Temnos: but
B now in the utmost nouke of the gulfe, certaine stonie rockes called Myrmeces. Also the towne Leuce upon the cape so called, sometime an Iland it was: and last of all, Phocæa, which limiteth and boundeth Ionia. But to returne unto Smyrna: the most part of Æolia, whereof we will speake anon, repaireth commonly thither to their Parliament and Assises. Likewise the Macedonians, surnamed Hircani, as also the Magnetes from Sipylum. But unto Ephesus, which is another principall and famous citie of Asia, resort those that dwell farther off, to wit, the Cæsarians, Metropolites, Cylbianes, the Myso-Macedonians, as well the higher as the lower, the Mastaurians, Brullites, Hyppepœnians, and Dios-Hieriteæ.

Chap. xxx.

C

Of Æolis, Troas, and Pergamus.

AEolis, in old time called Mysia, confronteth upon Ionia: so doth Troas, which boundeth upon the coast of Hellespontus. Being then past Phocæa, you meet with the port Ascanius, and the place where sometimes Larissa stood: and now Cyme, and Myrina which loveth to be called Sebastopolis. Within the firm land, Ægæ, Attalia, Posidea, Neon-tichos and Temnos. But upon the coast, the river Titanus, and a cittie taking name thereof. The time was when a man might have seene there the cittie Grynia: but now there is but an haven, and the bare ground, by reason that the Island is taken into it, and joyned thereto. The towne Elæa is
D not farre from thence; and the river Caicus comming out of Mysia. Moreover, the towne Pytane, and the river Canaius. Other townes there were in old time, but they are lost and perished, namely Canæ, Lysimachia, Atarnea, Carenæ, Cisthene, Cilla, Cocillum, Thebæ, Astyre, Chrysa, Palœstepsis, Gergithos, and Neandros. Yet at this day are to be seene, the cittie Perperene, and beyond it, the tract and territorie Heracleotes, the towne Coryphas, the river Grylliosolius, the quarter called Aphrodisias, before-time Politice. Orgas the countrey, and Scepsis the new. The river Evenus, upon the banke whereof stood once Lyrnessos and Miletos, but now they are gone. In this tract is the mountaine Ida. Moreover, in the sea-coast, Adramytteos, sometime called Pedasus, where the Parliament and Tearme is holden, and whereof the gulfe is named Adramitteos. Other rivers be there besides, to wit, Astron, Cormalos,
E Eryannos, Alabastros, and Hieros out of Ida. Within-forth be Gargara, a towne and hill both. And then againe toward the sea side, Antandros, before-time called Edonis: then, Cymeris, and Assos, which also is Apollonia. Long since also there was a towne called Palamedium. After all these, you come upon the cape Leolon, the middle frontier betweene Æolus and Troas. And there had been in auncient time, the cittie Polymedia, and Cryssa, with another Larissa also. As for the temple Smintheum, it remaineth still. But farther within, the towne Colone that was, is now decayed and gone, and the trafficke and negotiation in all affaires, turned from thence to Adramytteum. Now as touching the territorie of the Apolloniates, after you be past the river Rhyndicus, you find these States; the Eresians, Miletopolites, Pœmanenes, Macedonians, Aschilacæ, Polychnæi, Pionites, Cilices, and Mandagandenes. In Mysia, the
F Abrettines, and those called Hellespontij; besides others of base account and estimation. The first cittie you encounter in Troas, is Amaxitus: then, Cebrenia, and Troas it selfe, named sometime Antigonia, now Alexandria, and is entituled a Romane Colonie. Beyond Troas, standeth the towne Nee: there, runneth also Scamander, a river navigable: and Sigæum, a towne sometime, upon the cape so called. At length, you come to the haven of the

Greekes, into which Xanthus and Somoeis runne jointly together, as alſo Palæ-Scamander, G
but firſt it maketh a lake. The reſt that *Homer* ſo much ſpeaketh of, and namely, Rhæſius, Heptaporus, Careſus and Rhodius, there is no mention or token remaining of them. As for the river Granicus, it runneth from diverſe parts into the channell of Propontis. Yet there is at this day a little cittie called Scamandria: and one mile and an halfe from the port or Sea, the free cittie Ilium, that enjoieth many immunities and liberties: of which towne goeth all that great name. Without this gulfe, lieth the coaſt Rhœtea, inhabited with theſe townes upon it, namely, Rhœteum, Dardanium, and Arisbe. There ſtood ſometimes alſo Acheleum, a towne neare unto the tombe of *Achilles*: founded firſt by the Mityleneans, and afterwards reedified by the Athenians upon the Bay Sigæum, under which his fleet rode at anker. There alſo was Acantium built by the Rhodians, in another coine or canton of that coaſt, where *Aiax* was in- H
terred, a place thirtie ſtadia diſtant from Sigæum, and the very Bay wherein his fleet alſo lay at harbour. Above Æolis and one part of Troas, within the Continent and firme land, there is the towne called Teuthrania, which the Myſians in old time held. And there ſpringeth Caicus the river aboveſaid. A large countrey this is of it ſelfe, and eſpecially when it was united to Myſia, and all ſo called: containing in it Pioniæ, Andera, Cale, Stabulum, Coniſium, Tegium, Balcea, Tiare, Teuthranie, Sarnaca, Haliſerne, Lycide, Parthenium, Thymbrum, Oxyopum, Lygdanum, Apollonia: and Pergamus the goodlieſt cittie of them all by many degrees, through it paſſeth the river Selinus, and Cætius runneth hard under it, iſſuing out of the mountaine Pindaſus. And not farre from thence is Elea, which as we ſaid ſtandeth upon the ſtrond. And verily all that tract and jurisdiction is of that citie, named Perganena. To the parliament and judiciall Aſſiſes, there I
reſort the Thyatyrenes, Mygdones, Moſſines, Bregmenteni, Hieracomitæ, Perpereni, Tyareni, Hierapolenſes, Harmatapolites, Attalenſes, Pantaenſes, Apollonidenſes, and other pettie cities of no name and account. As for Dardanium, a pretie towne it is, threeſcore and tenne ſtadia diſtant from Rhœteum. Eighteene myles from thence is the cape Trapeza, where the ſea beginneth to ruſh roughly into the ſtreight Helleſpont. *Eratoſthenes* mine authour ſaith, That the citties of the Solymi, Leleges, Bebrices, Colycantij and Trepſedores ſometime flouriſhed, but now are utterly periſhed. *Iſidorus* reporteth as much of the Arymeos and Capretæ, the very place where Apamia was built by king *Seleucus*, betweene Cilicia, Cappadocia, Cataonia and Armenia. And for that hee had vanquiſhed moſt fierce and cruell nations, at the firſt hee named it Damea. K

Chap. xxxi.

The Iſlands lying before little Aſia, and in the Pamphylian ſea. Alſo Rhodus, Samus, and Chios.

THe firſt Iſland of Aſia is juſt againſt the mouth or channell of Nilus, called Canopicus, of *Canopus*, (as men ſay) the Pilot of king *Menelaus*. The ſecond is Pharus, which is joined to Alexandria by a bridge. In old time it was a daies ſailing from Ægypt to it: and now by fires from a watch-tower, ſaylers are directed in the night, along the coaſt of Ægypt. *Cæſar* Dictatour erected therein a Colonie. And in truth it ſerveth in right good ſteed as a Lanterne: L
for the havens about Alexandria be very daungerous and deceitfull, by reaſon of the barres and ſhelves in the ſea: and there are but three channels & no more, by which a man may paſſe ſafely to Alexandria, to wit, Tegamum, Poſideum, & Taurus. Next to that Iſle, in the Phœnician ſea before Ioppa, lieth Paria, an Iſland of no great compaſſe, for it is all a bare towne. And this is the place, folke ſay, where ladie *Andromeda* was expoſed and caſt out to a monſter. Moreover, Arados, the Iſle beforenamed, betweene which and the Continent there is a fountaine, as *Mutianus* writeth, in the ſea where it is fiftie cubites deepe, out of which freſh water is drawn and conveighed from the very bottome of the ſea, through pipes made of leather. As for the Pamphylian ſea, it hath ſome ſmall Iſlands of little or no reckoning. In the Cicilian ſea there is Cyprus, M
one of the five greateſt in thoſe parts, and it lieth Eaſt and Weſt full againſt Cilicia and Syria. The ſeat it was in times paſt, whereunto nine kingdomes did homage, and of which they held. *Timoſthenes* ſaith, That it contained in circuit foure hundred and nintereene miles and an halfe: but *Iſidorus* is of opinion, that it is but three hundred ſeventie five miles about. The full length

thereof

A thereof betweene the two capes, Dinaretas and Acamas, which is Southward, *Artemidorus* reporteth to bee a hundred and ſixtie miles and a halfe: and *Timoſthenes* two hundred, who ſaith beſides, that ſometime it was called Acamantis: according to *Philonides*, Ceraſtis: after *Xenagoras*, Aſpelia, Amathuſia, and Macatia: *Aſtynomus* calleth it Cryptos and Colinia. Townes there bee in it fifteene, Paphos, and Palæpaphos (that is, Paphos the new, and Paphos the old,) Curias, Citium, Corineum, Salamis, Amathus, Lapethos, Soloe, Tamaſeus, Epidarum, Chytri, Arſinoe, Carpaſium, and Golgi. There were in it beſides, Cinirya, Marium, and Idalium: but now are they come to nothing. And from the cape Anemurium in Cilicia, it is fiftie myles diſtant. All that ſea which lieth betweene it and Cilicia, they call Aulon Cilicium, that is to ſay, The plaine of Cilicia. In this tract is the Iſland Elæuſa: and foure others
B beſides, even before the cape, named Clides, overagainſt Syria. Likewiſe one more, named Stiria, at the other cape or point of Cilicia. Moreover, againſt Neampaphos, [*i.* new Paphos] the Iſle Hierocepia. Againſt Salamis, Salaminæ. Moreover, in the Lycian ſea there be Iſles, Illyris, Telendos, Attelebuſſa, and three Cypriæ, all barren and fruitleſſe: beſides Dionyſia, beforetime called Caretha. Moreover, againſt the Promontorie of Taurus, and the Chelidoniæ, hurtfull and daungerous to ſaylers: and beſides them as many more, together with the towne Leucola, called Pactiæ, namely, Laſia, Nymphous, Macris, Megiſta, in which the cittie that ſtood, is gone. Beſides theſe, many others there were, but of no importance. But overagainſt the cape Chimera, Dolichiſte, Chirogylium, Crambuſſa, Rhoge, Enagora, of eight myles. Againſt Dædaleon, two: againſt Cryeon, three: Strongyle moreover, againſt
C Sidynia, which king *Antiochus* founded: and toward the river Glaucus, Laguſa, Macris, Didymæ, Helbo, Scope, Aſpis, and Telandria: howbeit, the towne in it is ſunke and gone: laſt of all the Iſle Rhoduſſa, next to the harborough or haven Caunus. But the faireſt of all is the Iſle Rhodes, a free ſtate, and ſubject to none: It containeth in compaſſe a hundred and thirtie myles, or if wee rather give credite to *Iſidorus*, a hundred and three. Three great townes there bee in it well peopled, Lindus, Camirus, and Ialyſus, now called Rhodes. By the account of *Iſidorus* it is from Alexandria in Ægypt, five hundred ſeventie and eight myles: but according to *Eratoſthenes* five hundred ſixtie and nine: after *Mutianus* five hundred, and from Cyprus foure hundred and ſixteene. Many names hath it beene knowne by in times paſt, to wit, Ophyuſa, Aſteria, Æthræa, Trinacria, Corymbia, Pœeſſa, Atabyria of king *Atabyris*: and finally, Maca-
D ria, and Oloeſſa. Many other Iſlands bee ſubject to it, and namely Carpathus (which gave name to the ſea Carpathium) Caſos, Achme in times paſt: and Niſyros, diſtant from Gnidos twelve myles and a halfe, which heretofore had beene called Porphyris. And in the ſame raunge, Syme, betweene Rhodes and Gnidus, and is in circuit ſixe and thirtie myles and an halfe. Enriched this Iſland is with eight commodious havens. Over and beſides theſe, there lie about Rhodes, Cyclopis, Teganon, Cordyluſa, foure under the name of Diabete: Hymos, Chalcis, wherein ſtandeth a good towne: Seutluſa, Narthecuſa, Dimaſtos, and Progne. Being paſt Gnidos, yee ſhall diſcover Ciferuſſa, Therionarce, Calydne beautified with three townes, to wit, Notium, Niſyrus, Mendeterus: with Arconeſus the Iſle, wherein ſtandeth the towne Ceramus. Vpon the coaſt of Caria, the Iſlands, twentie in number, called Argiæ: beſides, Hye-
E tuſſa, Lepſia, and Leros. But the goodlieſt and moſt principall of all others in that coaſt is Cos, which lieth from Halicarnaſſus fifteene myles; and in compaſſe about, it beareth a hundred myles: as men thinke, Merope it was called: as *Staphylus* ſaith, Cos: but according to *Dionyſius*, Meropis: and afterwards Nymphæa. This Iſle is fortified with the mount Prion: and as ſome thinke, Niſyris the Iſland, named beforetime Porphyris, was of old united to this, and afterwards diſmembered from it. Beyond this Iſland yee may diſcover Carianda, with a towne in it: and not farre from Halicarnaſſus, Pidoſus. Moreover, in the gulfe Ceramicus, Priaponneſus, Hipponeſus, Pſyra, Mya, Lampſemandus, Paſſala, Cruſa, Pyrrhe, Sepiuſſa, Melano. And within a little of the maine, another called Cinedopolis, by occaſion of certaine Catamites and ſhamefull baggages that king *Alexander* the Great left there. The coaſt of Ionia
F hath in the ſea the Iſlands Ægeæ and Corſeæ, beſides Icaros, ſpoken of before. Alſo Lade, beforetime called Latæ: and among ſome other little ones of no worth, the two Camelides heere to Miletus. Moreover, Mycalum, Trogyliæ, Trepſilion, Argennon, Sardalion: and the free Iſland Samos, which in circuit hath foureſcore and ſeven miles, or as *Iſidorus* thinketh, a hundred. *Ariſtotle* writeth, how at the firſt it was called Parrhania, afterwards Dryuſa, and then Anthemuſa.

Ariſtocritus giveth it moreover other names, to wit, Melamphyllus, yea, and Cypariſſia: others G
tearme it Partheno-aruſa, and Stephane. Rivers in it bee Imbraſus, Cheſius, and Ibettes: fountaines of freſh water, Gigarto and Leucothea: but no other hils, ſave onely Cercetius. There lie adjoining to it other Iſlands beſides, namely, Rhypara, Nymphæa, and Achillea. Foureſcore and thirteene miles from it, you may diſcover Chios, a free State, with a towne in it, which is an Iſland as renowned every way as Samos: *Ephorus* by the auncient name calleth it Æthalia: *Metrodorus* and *Cheobulus*, Chia, of a certaine ladie nymph, whoſe name was *Chio*: others ſuppoſed it was ſo called of Chion, *i.* Snow: and ſome would have it to be Macris and Pityuſa. An hill there is in it called Pellenæus, where the good marble is digged, called Chium. The auncient Geographers have written, That it is a hundred twentie and five miles about; and *Iſidorus* addeth nine more. Situate it is betweene Samos and Lesbos, full oppoſite unto the cape E- F
rythræ. Neere unto it lie Thalluſa (which ſome write Dapnuſa,) Oenuſſa, Elaphites, Euryanaſſa, Arginuſſa with a towne. Now are all theſe about Epheſus, as alſo the Iſles of *Piſiſtratus*, ſo called: and thoſe which are named Anthinæ, to wit, Myonneſus, and Diareuſa. In both theſe the townes that were, bee loſt through water. Furthermore, the Iſland Poroſelenæ with a town in it, Cerciæ, Halone, Commone, Illetia, Lepria, and Rheſpheria, Procuſæ, Bolbulæ, Phanæ, Priapos, Syce, Melane, Ænare, Siduſa, Pela, Drymuſa, Anydros, Scopelos, Sycuſſa, Marathuſſa, Pſile, Perirheuſa, and many others of no reckoning. But among the Iſles of name, is that of Teos, lying farther in the deepe ſea, which hath a towne in it: and lieth from Chios fourſcoure and one miles, and as much from the Bay Erythræ. Neere unto Smyrna are the Iſlands Periſterides, Carteria, Alopece, Elæuſſa, Bachina, Pyſtira, Crommyonneſus, and Megale. And I
juſt before Troas, the Iſles Aſcaniæ, and three Plateæ. Then the Lamiæ, and two Plitaniæ. Moreover, the Iſlands Plate, Scopelos, Getone, Artheidon, Celæ, Laguſſæ, & Didymæ. But the moſt ſtately of all others in this ſea, is Lesbos, which lieth from Chios threeſcore and five miles. Named it was in times paſt, Hemerte, Laſia, Pelaſgia, Ægira, Æthyope and Macaria: within it were eight townes of name; whereof one, namely Pyrrha, is ſwallowed up of the ſea: and another, to wit, Arisbe, overthrowne by an earthquake. As for the Iſle Methymna was peopled from Antiſſa, which was united to it, and wherein were eight townes, and is about ſeven and thirtie
*Natolia. miles from *Aſia the leſſe. As for the townes Agamede and Hiera which were in it, gone they be now and utterly periſhed. Yet there remaine Ereſos, Pyrrha, and Mitylenæ, which hath continued for five hundred yeeres, mightie and puiſſant. *Iſidorus* ſaith, That this Iſland is in circuit K
about a hundred ſeventie and three miles: but the old Geographers, a hundred ninetie and five. In it are theſe mountains, Lepethymus, Ordymnus, Mariſtus, Creon, and Olympus. Eight myles and an halfe it is from the Continent, where it lieth neereſt. About this Iſland Lesbos, there lie neere at hand other little ones, namely, Saudalion, and the five Leucæ. Of which, Cydonea is one, wherein is a fountaine of hote water. As for Argenuſſæ, from thence to Ægæ is reckoned foure miles. There are beſides in this coaſt Phelluſa and Pedua. Now without Helleſpont, over-againſt the bay and cape Sigeum, lieth the Iſle Tenedus, called ſometimes Leucophrys, Phænice, and Lyrneſſos. From Lesbos it is ſixe and fiftie miles, and from Sigæum twelve miles and an halfe.

L

Chap. xxxii.

& *Helleſpontus, Myſia, Phrygia, Gallatia, Bithynia, Boſphorus.*

Archipelago. LEt us now leave the Iſles in the ſea Ægeum, and come to Helleſpont, now called the ſtreights of Callipolis: whereinto the maine ſea guſheth with a mightie force and violence, with his gulfes and whirlepooles, digging before him a way, untill he have limitted and devided Aſia from Europe. The promontorie firſt appearing there, wee named Trapeza. From which, tenne myles off, ſtandeth the towne Abydum, where the ſtreights are but ſeven ſtadia over. Beyond it is Percote the towne: and Lampſacum, called beforetime Pityuſa. Moreover, the Colonie Parium, which *Homer* named Adraſtia. Moreover, the towne Priapos, the river Æſepus M
and the cape Zelia. Then come yee to Propontus, for ſo is the place called where the ſea beginneth to enlarge it ſelfe. Into this channell runneth the river Granicum, which maketh the haven Artace, where once ſtood a towne. Beyond it there is an Iſland, which *Alexander* the great joined to the Continent [by two bridges, according to *Strabo*] in which ſtandeth the towne Cyzicum,

A zicum,founded by the Mileſians,called heretofore Arconneſos,Dolionis,and Dindymis, neere the top whereof is the mountaine Dindymus. When yee are beyond Cizycum,you meet with theſe townes beſides,Placia,Ariacos,Scylacum: & behind them,the hill Olympus,called ſometime Mæſius. Alſo the cittie Olympena. The rivers Horiſius and Rhyndacus,named heretofore Lycus. This river taketh his beginning in the mariſh or meere Artynia, neere to Miletopolis. It receiveth into it Mareſtos and many others,and ſeperateth Aſia from Bithynia. This region in auncient time was called Cronia: afterward Theſſalis, then Malianda and Strymonis. All this nation of theſe quarters, *Homer* named Halizones, for that they bee environned with the ſea. Therein ſtood in old time a mightie great cittie named Attuſa. At this day fifteene cities it hath, among which is Gordiu-come,now called Iuliopolis,and in the very coaſt upon the ſea,Daſcy-
B los. Goe further on,and yee meet with the river Gebes: and within the maine, the towne Helgas,the ſame that Germanicopolis, knowne alſo by another name Booſcœte, as alſo Apamea, now called Myrtea of the Colophonians. Being paſt it,you come to the river Etheleum, the auncient limit of Troas,& where Myſia beginneth. Afterwards,you enter into the gulfe (of Bryllion)whereinto runneth the river Aſcanium,upon which ſtandeth the towne Bryllion. And beyond it you ſhall ſee the rivers Helas and Cios,together with a town of that name. A mart town this was,whereunto reſorted the Phrygians that border neere unto it,for to trafficke and furniſh themſelves with merchandiſe: built verily it was by the Mileſians,but the place whereon it ſtood was called Aſcania of Phrygia. And therefore me thinkes we cannot doe better, than even here to ſpeake of that countrey. Phrygia then ſpreadeth out above Troas and the nations beforena-
C med,from the cape Lectus unto the river Etheleus. It confronteth on the North ſide upon part of Galatia,Southward it boundeth hard to Lycaonia,Piſidia, and Mygdonia. And on the Eaſt part,it reacheth to Cappadocia. The townes of greateſt name, beſides thoſe before rehearſed, be Ancyra,Andria,Celænæ,Coloſſæ,Carina,Cotiaion,Ceranæ,Iconium,and Midaion. Certaine authors I have,who write,That out of Europe there come to inhabite theſe parts,the Myſi, Bryges,and Thyni,of whom are deſcended and likewiſe named,the Myſians Phrygians,and Bithynians.

And even here I thinke it good to write alſo of Galatia, which lying higher than Phrygia, yet poſſeſſeth a greater part of the plaine countrey thereof, yea, and the capitall place of it ſometime called Gordium. They that inhabited and held that quarter of Phrygia,were Gaules, called
D Toliſtobogi,Voturi,and Ambitui: but they that occupied the country of Mæonia and Paphlagonia,were named Trocmi. This region confronteth Cappadocia on the North and Eaſt ſide: and the moſt plenteous and fruitfull tract thereof the Tectoſages and Teutobodiaci kept in their poſſeſſion. And thus much for the principall nations of this countrey. As for the States,Tetrarchies,and Regiments,there bee in all a hundred ninetie and five. The townes are theſe. Of the Tectoſages, Ancyra: of the Trocmi, Tavium: of the Toliſtobogians, Peſinus. Beſides theſe, there be States of good account, Attalenſes, Araſenſes, Comenſes, Dioſ-hieronitæ,Lyſtreni, Neapolitani,Oeandenſes,Seleucenſes,Sebaſteni, Timmoniacenſes,and Tebaſeni. This Galatia extendeth even as farre as to Gabalia and Milyæ in Pamphylia, which are ſituate about Baris: alſo Cyllanticum and Oroadicum,the marches of Piſidia: likewiſe Obigene, part of Lyca-
E onia. Rivers there bee in it,beſide thoſe beforenamed, Sangarium and Gallus,of which river,the gelded prieſts of dame *Cybelæ*,mother of the gods, were named Galli. Now it reſteth to ſpeake of the townes upon the ſea-coaſt. Yet I cannot overpaſſe Pruſa neere to Cios,which lieth farre within the countrey of Bithynia,which *Annibal* founded at the foot of the hill Olympus. From Pruſa to Nicæa, are counted five and twentie myles, in which way lieth the lake Aſcanius betweene. Then come yee to Nicæa,in the very outmoſt part of the gulfe Aſcanium,which before was called Olbia: alſo to another Pruſa, built under the mountaine Hippius. Once there were in this coaſt,Pythopolis,Parthenopolis,and Choryphanta. And now there bee upon the ſea ſide, theſe rivers,Æſius,Bryazon,Plataneus, Areus, Sitos, Gendos,named alſo Chryſorrhoas. The Promontorie alſo,upon which ſtood the towne Megaricum. Then the gulfe or arme of the ſea
F which was called Craſpedites; for that that towne beforenamed, ſtood as it were, in a fold, plait,or nouke thereof. Sometimes alſo there was the towne Aſtacum, whereupon the creeke tooke the name Aſtacenus. Moreover, in old time the towne Libyſſa,by report, was planted there: where now remaineth nothing elſe to be ſeene but the tombe of *Annibal*. But in the inmoſt part of the gulfe where it endeth,there ſtandeth the goodly cittie of Bithynia, called Nico-

media. The cape Leucatas which encloseth the gulfe Astarenus, is from Nicomedia 42 miles and G
an halfe. Being past this gulfe, the sea beginneth to streighten again, and the land to meet neere together: and these streights reach as far as to Bosphorus in Thracia. Vpon these streights standeth the free citie Chalcedon, 72 miles and an halfe from Nicomedia. Beforetime it was called Proceraſtis: then, Compusa: afterwards, The citie of the Blind; for that they who founded it, being in a place but seven stadia from Bizantium, where was a seat in all respects more commodious and fit for a citie, were so blind as that they could not choose it for the plot of Chalcedon. But within the firme land of Bithynia, is the colonie Apamena: and there inhabite also, the Agrippenses, Iuliopolites, and they of Bithynium. Moreover, for rivers, ye have Syrium, Lapsias, Pharmicas, Alces, Crynis, Lylæus, Scopius, Hieras, which parteth Bithynia from Galatia. Beyond Chalcedon, stood Chrysopolis: then, Nicopolis, of which the gulfe still reteineth the H
name: wherein, is the haven of Amycus: the cape Naulochum: Estia, wherein is the temple of *Neptune*: and the Bosphorus, a streight halfe a mile over, which now once againe parteth Asia and Europa. From Chalcedon, it is twelve miles and an halfe. There beginneth the sea to open wider, where it is eight miles and a quarter over: in that place where stood once the towne Philopolis. All the maritime coasts are inhabited by the Thyni, but the inland parts by the Bithynians. Lo here an end of Asia, and of 282 nations, which are reckoned from the limits and gulfe of Lycia, unto the streights of Constantinople. The space of the streights of Hellespont and Propontis togither, untill you come to Bosphorus in Thracia, containeth in length 188 miles, as we have before said. From Chalcedon to Sigeum, by the computation of *Isidorus*, are 372 miles and an halfe. Ilands lying in Propontis before Cyzicum, are these, Elaphonnesus, from I
whence commeth the Cyzicen marble; and the same Ile was called Neuris, and Proconnesus. Then follow Ophyüsa, Acanthus, Phœbe, Scopelos, Porphyrione, and Halone, with a towne. Moreover, Delphacia, and Polydora: also Artacæon, with the towne. Furthermore, over-against Nicomedia, is Demonnesos: likewise, beyond Heraclea, just against Bithynia, is Thynnias, which the Barbarians call Bithynia. Over and besides, Antiochia: and against the fosse or river Rhyndacus, Besbicos, 18 miles about. Last of all, Elæa, two Rhodussæ, Erebinthus, Magale, Chalcitis, and Pityodes.

K

THE SIXTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS. L

Chap. I.

Pontus Euxinus.

THe Sea called Pontus Euxinus, and named by the Greeks in old time Axenos, for the hard usage that passengers found at the hands of those savage nations upon the coasts therof, is spred also between Europe & Asia, upon a very spite and speciall envie of Nature, as it should seeme, unto the Earth, and a wilfull desire to maintaine still the Sea in his greatnesse, and to fulfill his greedie and endles appetite. For contented she was not to have environed the whole earth M
with the maine Ocean, yea and taken from it a great part thereof, with exceeding rage overflowing the same, and laying all emptie and naked: it sufficed not, I say, to have broken through the mountaines, and so to rush in, and after the sea had dismembred * Caspe from Affricke, to have

*Mouth of Gilbraltar.

A have ſwallowed up much more by farre than is left behind to be ſeene: no nor to have let Propontis guſh through Helleſpont, and ſo to encroach againe upon the earth and gaine more ground: unleſſe from the ſtreights of Boſphorus alſo he enlarge himſelfe into another huge and vaſt ſea, and yet is never content, untill the lake Mœotis alſo with his ſtreight, meet with him as he thus ſpreadeth abroad and floweth at libertie, and ſo joyne together and part as it were, their ſtolne good betweene them. And verily that all this is happened maugre the earth, and that it made all reſiſtance that it could, appeareth evidently by ſo many ſtreights and narrow paſſages lying betweene theſe two elements of ſo contrarie nature (conſidering that in Helleſpont, the ſpace is not above 875 paces from land to land: and at the two Boſphori the ſea is ſo paſſeable, that oxen or kine may ſwim at eaſe from the one ſide to the other: and hereupon they both took
B their name:) the which vicinitie ſerveth very well to entertaine and nouriſh amitie among nations, ſeparated by nature one from another: and in this diſunion as it were, appeareth yet a brotherly fellowſhip and unitie. For the cocks may be heard to crow, and the dogges to barke, from the one ſide to the other: yea and men out of theſe two worlds may parly one to another with audible voice, and have commerce of ſpeech togither, if the weather be calme, and that the winds doe not carrie away the ſound thereof.

Well, the meaſure ſome have taken of the ſea, from Boſphorus Thracius unto the lake of Mœotis, and have accounted it to be 1438 miles and a halfe. But *Eratoſthenes* reckoneth it leſſe by one hundred. *Agrippa* ſaith, that from Chalcedon to Phaſis, it is a thouſand miles, and ſo to Boſphorus Cimmerius 360 miles. As for us, wee will ſet downe ſummarily and in generall, the
C diſtances of places, according to the moderne knowledge of our nation in theſe daies, for as much as our armies have warred in the verie ſtreight and mouth of this Cimmerian ſtreight.

Being paſſed then from the ſtreight of Boſphorus Thracius, we meet with the river Rhebas, which ſome have called Rhœſus: and beyond it, Pſillis another river: then, come we to the port of Calpas, and Sangarius one of the principall rivers of Aſia: it ariſeth in Phrygia: it receiveth other huge rivers into it, and among the reſt Tembrogius and Gallus. The ſame Sangarius, was called alſo Coralius. After this river, begin the gulfes Mariandini, upon which is to be ſeene the towne Heraclea, ſituate upon the river Lycus. It is from the mouth of Pontus 200 miles. Beyond it is the port Acone, curſed for the venemous hearb and poiſonous Aconitum, which taketh name thereof. Alſo the hole or cave Acheruſia. Rivers alſo there be, Pedopiles, Callichorum,
D and Sonantes. One towne, Tium, eight and thirtie miles from Heraclea: and laſt of all, the river Bilis.

Chap. II.

The nation of the Paphlagonians, and Cappadocians.

BEyond this river Bilis, is the countrey Paphlagonia, which ſome have named Pylæmerina, and it is encloſed with Galatia behind it. The firſt towne yee meet in it, is Maſtya, built by the Mileſians: and next to it, is Cromna. In this quarter the Heneti inhabite, as *Cornelius Nepos* ſaith. Moreover, from whence the Venetians in Italie, who beare their name, are deſcen-
E ded, as he would have us beleeve. Neere to the ſaid towne Cromna, is another called Seſamum in times paſt, and now Amaſtris. Alſo the mountaine Cytorus, 64 miles from Tium. When you are gone paſt this mountaine, you ſhall come to Cimolus and Stephane, two townes, and likewiſe to the river Parthenius: and ſo forward to the cape or promontorie Corambis, which reacheth forth a mighrie way into the ſea: and it is from the mouth of the ſea Pontus 315 miles, or as others rather thinke, 350. As farre alſo it is from the ſtreight Cimmerius, or as ſome would rather have it, 312 miles and an halfe. A towne there was alſo in times paſt of that name: and another likewiſe beyond it called Arminum: but now, there is to be ſeene the colonie Sinope, 164 miles from Citorum. Being paſt it, you fall upon the river Varetum, the people of Cappa-
docia, the townes Gazima, and Gazelum, and the river Halyto, which iſſuing out of the foot of
F the hill Taurus, paſſeth through Cataonia and Cappadocia. Then meet you with theſe townes following, Gangre, Cariſſa, and the free citie Amiſum, which is from Sinope 130 miles. As you travell farther, you ſhall ſee a gulfe carrying the name of the ſaid towne, where the ſea runneth ſo farre within the land, that it ſeemeth to make Aſia well-neere an Iland: for from thence to the gulfe Iſſicus in Cilicia, is not above 200 miles through the continent. In all which tract, there be

no

no more than three nations which justly and by good right, may be called Greekes, to wit, the Dorians, Ionians, and Æolians: for all the rest are reputed barbarous. Vnto Amisum, there joyned the towne Eupatoria, founded by K. *Mithridates*: and after that he was vanquished, both together tooke the name of Pompeiopolis. G

Chap. iii.

Of *Cappadocia.*

IN Cappadocia, there is a cittie well within the land, called Archelais, situate upon the river Halys: which *Claudius Cæsar* the Emperor erected as a colonie, and peopled it with Romane souldiers. There is besides a towne which the river Sarus runneth under: also Neo-cæsarea, which Lycus passeth by: and Amasia, with the river Iris runing under it, within the country Gazacena. Moreover, in the quarter called Colopena, there stand Sebastia and Sebastopolis, little townes indeed, howbeit comparable with those aboveseid. In the other part of Cappadocia, there is the cittie Melita, built by queene *Semiramis*, not farre from Euphrates: also, Dio-Cæsarea, Tyana, Castabala, Magnopolis, Zela: and under the mountaine Argæus, Mazaca, which now is named Cæsarea. That part of Cappadocia which lieth before Armenia the greater, is called Melitene: that which bordereth upon Comagene, Cataonia: upon Phrygia, Garsauritis: upon Sargaurasana, Cammaneum: and finally upon Galatia, Morimene. And there the river Cappadox seperateth the one from the other. Of this river the Cappadocians took name, whereas beforetime they were called Leucosyri. As for the lesse Armenia, the river Lycus devideth it from Neo-Cæsarea beforesaid. Within the countrey there runneth also the great river Ceraunus. But on the coast side, when you are past the cittie Amysum, you meet with the towne Lycastum, and the river Chadisia: and once past them, you enter into the countrey Themiscyra. In this quarter also you may see the river Iris, bringing downe with it another river, Lycus that runneth into it. And in the midland parts there is the citie Ziela, ennobled for the overthrow of *Triarius*, whom *C. Cæsar* defeated with his whole armie. But in the coast againe you shall encounter the river Thermodon, which issueth from before a castle named Phanaroea, and passeth beside the foot of the mountaine Amazonius. In which place there stood sometime a towne of that name, and other five, namely, Phamizonium, Themiscyra, Sotira, Amasia, Comana, at this present called Manteium. H I K

Chap. iiii.

The people of the region Themiscyrene.

MOreover, in Pontus ye have the nations of the Genetæ and the Chalybes, together with a towne of Cotyi. People besides called Tibareni, and Mossyni, who brand and marke their bodie with hote searing yrons. Also the nation of the Macrocephali, with the town Cerasus, and the port Cordulæ. Beyond which you come to a people named Bechires, and Buzeri, and to the river Melas. And so forward to the quarter of the Macrones, Sideni, and so to the river Sydenum, upon which is situate the towne Polemonium, distant from Amisum 220 myles: where yee shall find the rivers Iasonius and Melanthius: and a towne 80 miles from Amisum, called Pharnacea: the castle and river of Tripolis. Item, Philocalia and Liviopolis without a river: and lastly the imperiall and free cittie Trapezus, environned with an high mountaine, 100 miles from Pharnacea. And being past Trapezus, you enter into the countrey of the Armenochalybes, and Armenia the greater: which are 30 myles asunder. But upon the coast you shall see the river Pyxites that runneth even before Trapezus: and beyond it the countrey of the Sanni Heniochi. Moreover, the river Absarus, in the mouth whereof there is a castle likewise so named, from Trapezus 150 miles. Behind the mountains of that quarter, you meet with the region Iberia: but in the coast thereof the Heniochi, Ampreutæ and Lazi. The rivers Campseonysis, Nogrus, Bathys. When yee are once past them, you come into the countrey of the Colchians, where standeth the towne Matium, with the river Heracleum passing under it, and a Promontorie of that name, and last of all, the most renowned river of all Pontus, called Phasis. This river riseth from out of the Moschian mountaines, and for 38 miles and an halfe, is navigable, and beareth any great vessels whatsoever. And then for a great way it carrieth smaller bottomes, and hath over it L M

A 120 bridges. Beautified it was ſometimes with many faire townes upon the bankes thereof on both ſides, and the principall of them all, were Tyritaum, Cygnus, and the cittie Phaſis ſituate in the very mouth thereof, as it falleth into the ſea. But the goodlieſt cittie planted upon this river, and moſt famous of all the reſt was Æa, fifteene myles diſtant from the ſea: where Hippos and Cyanos, two mightie great rivers, comming from divers parts, enter both into the river Phaſis. But now there is no count made of any but of Surium onely, which taketh name of the river Surium which runneth to it. And thus farre wee ſaid that Phaſis was capable of great ſhips. Among other rivers which it receiveth, for number and greatneſſe admirable, is the river Glaucus. In the foſſe and mouth of this river Phaſis, where hee is diſcharged into the ſea, there bee ſome little Iſlands of no reckoning. And there, from Bſarus it is 75 miles. Being paſt Phaſis, you
B meet with another river called Charien: upon which bordereth the nation of the Salæ, named in old time Phthirophagi and Suani, where you ſhall meet with the river Cobus, which iſſueth out of Caucaſus, and runneth through the countrey of the Suani aboveſaid. Then you come to another river Rhoas, and ſo forward to the region Ecrectice: to the rivers Sigania, Terſos, Atelpos, Chryſorrhoas, and the people Abſilæ: the caſtle Sebaſtopolis, a hundred miles from Phaſis, the nation of the Sanigores, the towne Cygnus, the river and towne both called Pityus. And laſt of all yee arrive upon the countrey of the Heniochæ, where be nations entituled with many and ſundrie names.

Chap. V.

C *The region of Colchis, the Achæi, and other nations in that tract.*

NExt followeth the region of Colchis, which is likewiſe in Pontus: wherein the mountaine Caucaſus wind & turn toward the Rhiphæan hils, as hath ben ſaid before, and that mountaine of the one ſide bendeth downe toward Euxinus, Pontus, and Mæotis; and of the other, enclineth to the Caſpian and Hircane ſeas. When ye are deſcended to the maritime coaſts, yee ſhall find many barbarous and ſavage nations there inhabiting, to wit, the Melanchlæni, and the Choruxi, where ſometimes ſtood Dioſcurias a cittie of the Cholchians, neere unto the river Anthemus, which now lieth waſt and diſpeopled, notwithſtanding it was ſo renowmed in times paſt, that by the report of *Timoſthenes*, there repaired thither and inhabited therein
D 300 nations of diverſe languages. And even afterwards our Romanes were forced to provide themſelves of 130 interpreters, when they would negotiate and trafficke with the people in and about Dioſcurias. Some there be that thinke how it was firſt founded by *Amphitus* and *Telchius*, who had the charge of the chariots of *Caſtor* and *Pollux*: for certain it is, that the fierce and wild nation of the Heniochi, are from them deſcended. Being paſſed Dioſcurias, you come up the towne Heraclium, which from Sebaſtopolis is 80 miles diſtant: and ſo forward to the Achæi, Mardi, and Cercetæ: and after them to the Serri, and Cephalotomi. Far within that tract ſtood the moſt rich and wealthie towne Pitius, which by the Heniochians was ranſacked and ſpoiled. On the backe part thereof inhabite the Epagerites [a nation of the Sarmatians] even upon the mountaine Caucaſus: and on the other ſide of that hill, the Sauromatæ (the countrey is at this
E day called Tartaria the great.) Hither retired and fled king *Mithridates* in the time of *Claudius Cæſar* the Emperor: who made report, that the Thali dwell thereby, and confine Eaſtward upon the very opening of the Caſpian ſea: which by his report remaineth drie, whenſoever the ſea doth ebbe. But now to returne to the coaſt neere unto the Cercetæ, you meet with the river Icaruſa, with a towne and river called Hierum, 136 miles from Heracleum. Then come yee to the cape Cronea, in the very ridge and high pitch whereof the Toretæ inhabite. But beneath it you may ſee the cittie Sindica, 67 miles ſituate from Hierum: and laſt of all, you arrive upon the river Sceaceriges.

Chap. VI.

F *Mæotis, and the ſtreights thereof called Boſphorus Cimmerius.*

FRom the ſaid river to the very entrance of the Cimmerian Boſphorus are counted 88 miles and an halfe. But the length of the very demie Iſland, which extendeth and ſtretcheth out between Pontus and Mæotis, is not above 87 miles and a halfe, and the breadth in no place

leſſe

lesse than two acres of land. This the paisants of that countrey doe call Eione. The very coasts of this streight Bosphorus, both of Asia side and Europa, boweth and windeth like a curb to Mœotis. As touching the townes here planted, in the very first entrie thereof standeth Hermonassa, and then Cepi, founded by the Milesians. Being past Cepi, you come soone after to Stratilia, Phanagoria, and Apaturos, in manner unpeopled and void: and last of all, in the verie utmost point of the mouth where it falleth into the sea, you arrive at the towne Cimmerius, named beforetime Cerberian. G

Chap. vii.

Nations about Mœotis. H

BEing passed Cimmerium, you come to the very broad lake Mœotis, whereof we spake before in the Geographie of Europe. Vpon the coast whereof, beyond Cimmerium on the side of Asia, inhabite the Mœotici, Vati, Serbi, Archi, Zingi, and Psesij. After this, you come to the great river Tanais, which runneth into Mœotis with two armes or branches: and on the sides of it dwell the Sarmatians, an offspring descended in old time (as men say) from the Medians: but so multiplyed now, that they themselves are divided and dispearsed into many nations. And first of all are the Sauromatæ, surnamed Gynæcocatrumeni, *i.* (as one would say) subject to women: from whence the Amazons are provided and furnished of men to serve their turne in stead of husbands. Next to them, are the Euazæ, Cottæ, Cicimeni, Messeniani, Costobocci, Choatræ, Zigæ, Dandari, Thussageræ, and Turcæ, even as farre as the wildernesses, I forrests, chases, and rough valleys. But beyond them are the Arnuphæi, who confine upon the mountaine Rhiphæi. As for the river Tanais, the Scithians call it Silys: and Mœotis, they name Temerinda, that is to say, the mother of the sea, or rather, the seas end. In auncient time there stood a great town upon the very mouth of Tanais, where it falleth into the sea. As for the neighbour borders of this sea, inhabited they were sometime by the Lares: afterwards, by the Clazomenij and Mœones: and in processe of time, by the Panticapenses. Some Authours write, that about Mœotis toward the higher mountaines Ceraunij, these nations following doe inhabite, to wit, first upon the very coast and sea side, the Napææ: and above them, the Essedones, joyning upon the Colchi, and the high mountaine [Corax.] After them, the Carmaces, the Oranes, Anticæ, Mazacæ, Ascantici, Acapeates, Agagammatæ, Phycari, Rhimosoli, and Ascomarci. Moreover, upon the hill Caucasus, the Icatales, Imaduches, Ranes, Anclaks, Tydians, Charastasci, and Asuciandes. Moreover, along the river Lagous, issuing out of the mountains Cathei, and into which Opharus runneth, these nations ensuing doe dwell, to wit, the Caucadians, and the Opharites: beyond whome, runneth the rivers Menotharus, and Imitues, out of the mountaines Cissij, which passeth through the Agedi, Carnapes, Gardei, Accisi, Gabri, and Gregari: and about the source or spring of this river Imitues, the people Imitui and Apartheni. Others say, that the Suites, Auchetes, Satarnei, and Asampates, invaded and conquered these parts; and that the Tanaites and Nepheonites, were by them put to the edge of the sword, and not one person of them spared. Some write, that the river Opharius runneth through the Canteci, and the Sapæi: and that the river Tanais traversed sometime through the Phatareans, Hertici, Spondolici, Synthietæ, Amassi, Issi, Catareti, Tagori, Catoni, Neripi, Agandei, Mandarei, Saturchei, and Spalei. K L

Chap. viii.

Cappadocia.

HItherto have we treated and gone through the nations and the inhabitants of the coasts upon the Mediteranean sea. Now are wee to speake of the people inhabiting the verie midland parts of the maine within: wherein I protest, and denie not, but that I will deliver many things otherwise than the auncient Geographers have set downe: forasmuch as I have made diligent search into the state of those regions, as well by enquirie of *Domitius Corbulo* (who lately went with an armie through those quarters) as of divers kings and princes, who made repaire to Rome with suites and supplications, but especially of those kings sonnes that were left as hostages in Rome. And first to begin with the nation of the Cappadocians. This is a country M

that

A that of all others which bound upon Pontus, reacheth fartheſt within the firme land: for on the left hand it paſſeth by both Armenias, the greater and the leſſe, and Comagene: and on the right, all thoſe nations in Aſia before-named: confining many others: and ſtill prevailing with great might, growing on and climing Eaſtward up to the mountaine Taurus, it paſſeth beyond Lycaonia, Piſidia, and Cilicia: and with that quarter which is called Cataonia, pierceth above the tract of Antiochia, and reacheth as far as to the region Cyrrheſtica, which lyeth well within that countrey. And therefore the length of Aſia there, may containe 1250 miles, and the breadth 640.

Chap. IX.

B ❧ *Armenia the greater and the leſſe.*

THe greater Armenia, beginning at the mountaines Pariedri, is divided from Cappadocia by the river Euprates, as hath been ſaid before: and where the river Euphrates beginneth to turne his courſe from Meſopotamia, by the river Tigris as renowmed as the other. Both theſe rivers is it furniſhed withall, which is the cauſe that it taketh the name of Meſopotamia, as being ſituate betweene them both. The maine land which lyeth betweene, is poſſeſſed by the mountaines of Arabia called Orei: howbeit, it extendeth untill it confine upon Adiabene. Being paſt it once, it is hemmed in with mountaines that encounter it overthwart, which cauſe it to enlarge it ſelfe into a breadth on the left hand, as far as to the river Cyrus: and then it turneth
C ever croſſe, untill it meet with the river Araxes: but it carrieth his length into the leſſe Armenia, confining ſtill upon the river Abſarus, which falleth into the Ponticke ſea: and the mountaines Pariedri (from which the ſaid river iſſueth) which divide it from the leſſe Armenia. As for the river Cyrus, it ſpringeth in the mountaines Heniochij, which ſome have called Coraxici. But Araxes iſſueth out of the ſame mountaine from whence Euphrates commeth, and there is not above ſixe miles ſpace betweene them both. This river Araxes is augmented with the river Muſis; and then himſelfe looſeth alſo his name, and as moſt have thought, is carried by the river Cyrus into the Caſpian ſea. As for the townes of name in the leſſe Armenia, they be theſe, Cæſarea, Aſia, and Nicopolis. In the greater, yee have Arſamole, faſt upon the river Euphrates: likewiſe Carcathiocerta, ſituate upon Tigris. In the higher countrey, is the citie Tigranocerta,
D built in the plaine beneath, neere unto Araxes, Artaxata. *Auſidius* ſaith, that both the Armeniæ containe in all 500 miles. *Claudius Cæſar* reporteth, that in length from Daſcuſa, to the confines of the Caſpian ſea, it taketh 1300 miles, and in breadth halfe ſo much, to wit from Tigranocerta to Iberia. This is well knowne, that divided it is into certaine regiments, which they call Strategians; and yet ſome of them in old time, were as large ech of them as realmes and kingdomes: and to the number they were of 120, but ſuch barbarous names they had, that they cannot well be ſet downe in writing. Encloſed it is Eaſtward with the mountaines, but neither the hills Ceraunij, nor yet the region Adiabene, doe preſently and immediatly confine thereupon: for the countrey of the Sopheni lyeth betweene: then you come to the mountaines aforeſaid; and being paſt them, you enter into the countrey of the Adiabenes. But on that coaſt where the plaines
E lye and the flat valleys, the next neighbours to Armenia, be the Menobardi and Moſcheni. As for Adiabene, environed it is partly with the river Tigris, and partly compaſſed with unacceſſible ſteepe mountaines. On the left hand, it confineth upon the Medians, and hath a proſpect to the Caſpian ſea, the which commeth out of the Ocean (as we ſhall ſhew in meet and covenient place) and is encloſed wholly within the mountaines of Caucaſus. As for the nations there inhabiting along the marches and confines of Armenia, now will we ſpeake of them.

Chap. X.

❧ *Albania, and Iberia.*

F ALl the plaine countrey betweene Armenia and the river Cyrus, the Albanois of Aſia do inhabite. Beeing paſt it, you enter anon into the Iberians region, who are ſeparated from the Albanois afore-ſaid by the river Alazon, which runneth downe from the Caucaſian hills into Cyrus. The towns of importance, in Albania, is Cabalaca; in Iberia, Harmaſtis, neere to the river Neoris: beyond which, is the region Thaſie, and Triare, as farre as to the mountaines

taines Partedori. And when you are past them, you enter into the deserts of Cholchis: and on G
the side of them which lyeth toward the Ceraunij, the Armenochalybes do inhabite: and so forward you come into the tract and marches of the Moschi, which extend to the river Iberus, that runneth into Cyrus. Beneath them, inhabite the Sacassani, and beyond them the Macroniens, who reach even to the river Absarus. Thus you see how the plaines and the hanging of the hills in these parts, are inhabited. Againe, from the marches and frontiers of Albania, all the fore-front of the hills is taken up and possessed by the savage people of the Sylvi; and beneath them, of the Lubienes, and so forward by the Didurians, and Sodij.

Chap. xi.

The gates and passages of the mountaine Caucasus. H

When ye are beyond the Sodij, you come to the streights of the hill Caucasus, which many have erroniously called Caspiæ Portæ. And certes, Nature hath persourmed a mightie peece of worke, in cleaving asunder at one instant those mountaines, where the gates were barred up as it were with iron portculleises, whiles under the mids thereof, the river Dyriodorus runneth: and on this side of it, standeth a strong fort and castle called Cumania, situate upon a rock, able to impeach an armie never so puissant and innumerable that would passe thereby; in such sort, as in this place by meanes of these bar-gates, one part of the world is excluded from the other: and namely most of all they seeme to be set opposite as a rampart against Harmastis a towne of Iberia. But being passed these said gates, you come to the mountaines Gordyei, where the Valli and Suarni, barbarous and savage nations, are imployed onely in the mines of gold. Beyond them as farre as to the Ponticke sea, you enter into the countrey of the Heniochi, whereof be many sorts: and soone after, to the Achei. And thus much as touching this tract of the sea Ponticke, and of the most renowmed gulfes of all others. Some have set downe in writing, that betweene Pontus and the Caspian sea, it is not above 375 miles. *Cornelius Nepos* saith it is but 150. See into what great streights between both seas Asia is driven again, and as it were thronged. *Claudius Cæsar* hath reported, that from Cimmerius Bosphorus unto the Caspian sea, it is 150 miles, and that *Seleucus Nicator* purposed if he had lived, to cut the land through from the one side to the other: but in this purpose of his, himselfe was cut short and slaine by *Ptolomæus Ceraunus*. To conclude, it is in manner held for certein, that from those K
gates of Caucasus unto the Ponticke sea, it is 200 miles and no lesse.

Chap. xii.

The Islands in the Ponticke sea.

In the Ponticke sea, lye the Islands Planctæ, otherwise Cyaneæ or Symplegades. Then Apollonia, named also Thynnias, for distinction sake from that other so named in Europe: it is from the continent one mile, and is in circuit three. Iust over-against Pharnacea, is the Isle Chalceritis, which the Greekes called Aria, consecrated as it were to *Mars*; wherein they say the foules that are, used to fight and flutter with their wings against all other birds that come L
thither.

Chap. xiii.

The regions and people confining upon the Scythian Ocean.

Having thus sufficiently discoursed of all the countries within the firme land of Asia, let us now determine to passe over the Rhiphæan hilles, and discover the coasts of the Ocean which lye on the right hand of those hills. Wherein we have to consider, that Asia is dashed and beaten upon by this maine sea on three parts: to wit, on the North side, and there it is called Scythicus: on the East, where they call it Eous: and last from the South, and there they M
name it Indicus. And according to the sundrie gulfes and creekes that it maketh, and the inhabitants by whome it passeth, many names it taketh. Howbeit, a great part of Asia toward the North, lyeth desert, and hath in it much wilderneſſe inhabitable, by reason of the extreme cold of that frozen climate, so subject to the Pole Arcticke. But being once past the utmost quarter of

the

A the North point, and came to the Northeaſt where the ſunne ariſeth at midſommer, then you come to the Scythians. Beyond whome, and the very point of the North pole and the wind from thence, ſome have placed the Hyperborei; of whome we have ſpoken at large in the treatiſe of Europe. On this ſide the Hyperborei, the firſt cape or promontorie that you meet withall in the countrey Celtica, is named Lytarmis: and then you come into the river Carambucis, where, by the forcible influence of the ſtarres, the high mountaines Rhiphæa, as being wearied, begin to ſettle and abaſe themſelves lower. At the fall and deſcent of which mountaines, I have heard ſay, that certaine people named Arnupheæ inhabited: a nation not much unlike in their manner of life to the Hyperboreans. They have their habitations in forreſts; their feeding is upon berries of trees: ſhorne they be all and ſhaven, for both women and men count it a ſhame to
B have haire on their heads: otherwiſe they are civile enough in their converſation and behavior; and therefore, by report, they are held for a ſacred people and inviolable, in ſo much as thoſe cruell nations and inhumane that border upon them, will offer them no abuſe; neither do they reſpect them onely, but alſo in regard and honour of them, they forbeare thoſe alſo that flie unto them as to a place of franchiſe and priviledge. Goe beyond them once, you come among the *Scythians indeed, the Cimmerij, Cicianthi, Georgi, and the nation of the Amazons, and theſe confront the Caſpian or Hircan ſea: for it breaketh forth of the deep Scithian Ocean, toward the back parts of Aſia, and taketh divers names of the inhabitants coaſting upon it, but eſpecially above all other of the Caſpians and Hircaneans. *Clitarchus* is of this opinion, that this ſea is full as great and large as Pontus Euxinus. And *Eratoſthenes* ſetteth down the very meaſure and pour-
C priſe thereof: namely, from Eaſt to South along the coaſt of Caduſia and Albania, 5400 ſtadia: from thence by the Aratiaticks, Amarbi, and Hircanij, to the mouth of the river Zoum, 4800 ſtadia: from it to the mouth of Iaxartes where it falleth into the ſea, 2400 ſtadia: which beeing put together amount in all to 1575 miles. *Artemidorus* counteth leſſe by 25 miles. *Agrippa* in bounding out and limiting the circuit of the Caſpian ſea, and the regions coaſting upon it, togither with them Armenia both the greater and the leſſe, namely, Eaſtward with the Ocean of the Seres, Weſtward with the mountains of Caucaſus, on the South ſide with the hill Taurus, and finally on the North with the Scithian Ocean, hath written, That the whole precinct and compaſſe of theſe parts may contain in length [ſo far as is known and diſcovered of thoſe countries] 590 miles, and 290 in breadth. Yet for all this, there want not others who ſay, That the whole cir-
D cuit of that ſea, and begin at the very mouth and firth thereof, ariſeth to 2500 miles. As for this mouth aforeſaid where it breaketh into the ſea, it is very narrow, but exceeding long: howbeit when it beginneth once to enlarge it ſelfe and grow wide, it turneth and fetcheth a compaſſe with horned points like to a quarter moon, and after the manner of a Scithian bow, as *M. Varro* ſaith, it windeth along from his mouth toward the lake Mœotis. The firſt gulfe that it maketh, is called Scythicus; for the Scithians inhabit on both ſides, and by the meanes of the narrow ſtreight between, have commerce and trafficke one with another: for of the one ſide are the Nomades and Sauromatæ, compriſing under them many other nations of ſundry names: and on the other, the Abzoæ, who have no fewer ſtates under them. At the very entry of this ſea on the right hand, the Vdines, a people of the Scithians, dwell upon the very point of this mouth: and then along the
E coaſt, the Albanois, a nation deſcended (as men ſay) from *Iaſon*; where the ſea lying before them is called Albanum. This nation is ſpread alſo upon the mountaines of Caucaſus, and ſo along downe the hils as far as to the river Cyrus, which confineth the marches betweene Armenia and Iberia, as hath been ſaid. Above the maritime coaſts of Albania and the Vdines country, the Sarmatians, called Vtidorſi, and Aroteres, are planted: and behind them, the Amazons, whome we have alreadie ſhewed; who alſo are women Sauromatians. The rivers of Albanie which fall into the ſea, are Caſſios and Albanos: and then Cambiſes, which hath his head in the Caucaſian mountains: and ſoon after Cyrus, which ariſeth out of the hils Corax, as before is ſaid. Moreover *Agrippa* writeth, that this whole coaſt of Albanie (fortified with thoſe high and inacceſſible mountains of Caucaſus) containeth 425 miles. Now when you are paſt the river Cyrus, the Caſ-
F pian ſea beginneth to take that name, for that the Caſpians do inhabite the coaſt thereof. And here the error of many is to be laid open and corrected, even of thoſe alſo who were in the laſt voyage with *Corbulo* in Armenia with the Romane armie: for they tooke it, that thoſe gates of Caucaſus whereof wee ſpake before, were the Caſpian gates, and ſo called them: and the verie mappes and deſcriptions which are painted and ſent from thence, beare that name and title.

* At this day, the Moſchovites, white & black Ruſians, Georgians, Amazonians, & the leſſe Tartarie.

Likewise the menacing commaundements, and threatning commissions sent out by *Nero* the Emperour for to gaine and conquer those gates, which through Iberia lead into Sarmatia, made mention of the gates Caspiæ there, which had in a manner no passage at all to the Caspian sea, by reason that the mountaine Caucasus empeached it. Howbeit in very truth, there be other gates so called, which joyn upon the Caspian nations, which we had never known from the other, but by relation of those that accompanied *Alexander* the Great in his voyage and expedition to those parts. For the realme and kingdome of the Persians, which at this day wee take that the Parthians hold, lyeth aloft betweene the Persian and Hircane seas upon the mountaines of Caucasus, in the very hanging and descent thereof, on both sides confining upon Armenia the greater: and on that part which lyeth to Comagene, confronteth and joyneth (as we have said) upon Sepheniæ: and upon it againe bordereth Adiabene, where the realme of the Assyrians doth begin: whereof Arbelitis, which boundeth next upon Syria, taketh up a good part: which is the country wherein *Alexander* the Great discomfited and vanquished *Darius*. All this tract, the Macedonians who entred with *Alexander*, surnamed Mygdonia, for the resemblance of that in Greece from which they came. Townes of name there be in it, Alexandria, and Antiochia, which they call Nisibis: and from Artaxata it is 750 miles. There was also another cittie called Ninus or Ninive, seated upon the river Tygris, which regarded the West, which in times past was highly renowmed. But on the other side, where it lieth toward the Caspian sea, lyeth the region Atropatene, separated by the river Araxes, from Otene in Armenia: wherin is the citie Gazæ, 450 miles from Artaxata: and as many from Ecbatana in Media, wheron some part the Atropatenes doe hold.

Chap. xiiii.

Media, and the gates Caspiæ.

AS for Ecbatana the head citie of Media, *Seleucus* the king founded it: and it is from Seleucia the great 750 miles: and from the Caspian gates 20. The other great townes of importance in Media, be Phausia, Agamzua, and Apamia, named also Rhaphane. And as for the streights there, called the Caspian gates, the same reason is there of that name, as of the other by Caucasus; by reason that the mountaine is cloven and broken through, and hath so narrow a lane, that hardly a waine or cart is able to passe by it, and that for the length of 8 miles: all done by the picke-axe and mans hand. The rockes and cliffes that hang over on the one side and the other, be like as if they were scortched and halfe burnt: so dry and thirstie is all that tract, and without fresh water for 38 miles space: for all the liquor and moisture issuing out of those craggie rockes, runneth through it, which letteth the passage and causeth folke to avoid that way. Besides, such a number of serpents doe there haunt, that no man dare passe that way but in winter onely.

Chap. xv.

Nations about the Hircane sea.

VNto Adiabene, joyneth the countrey of the Carduchi, so called in times past, and now Cordueni, by which the river Tigris runneth: and upon them the Pratitæ doe confine, called also Paredoni, who keepe the hold of the Caspian gates aforesaid. On the other side of whome, you shall meet with the deserts of Parthia, and the mountaine Cithenus: but being passed that once, you come streight into the most pleasant and beautifull tract of the same Parthia, called Choara: and there, stand two citties of the Parthians, built sometimes as forts opposite against the Medians: namely, Calliope and Issatis, situate in times past upon another rocke. As for the capitall cittie of all Parthia, Hecatompylos, it is from the Caspian gates abovesaid 133 miles. Thus you see how the kingdome of the Parthians also is limited and separated by these mountaines and streights. When a man is once gotten forth of these gates, presently he entreth upon the Caspians country, which reacheth as farre as to the sea side, and gave the name as well to it as to the gates afore-named. Howbeit all the region upon the left hand is ful of mountains: from whence backward to the river Cyrus, are by report 220 miles, but from that river if you would goe higher up to those gates, you shall find it 700 miles. And in very truth from this place began *Alexander* to make the account and reckoning of his journies, in that voyage of his to India,

A India, saying, that from those gates to the entrance of India, it was 15680 stadia: from thence to the citie Bacha, which they call Zariaspa 3700, and so to the river Iaxartes 5 miles.

Chap. xvi.

& other nations also.

From the Caspians countrey Eastward, lieth the region called Zapanortene, & in it the land Darieum, the most fertile tract of all those parts. Then come you to the Tapyrians, Anariaci, Stauri and Hircani, at whose coasts the same sea beginneth to take the name Hircanum, even from the river Syderis. About it are other rivers, to wit, Mazeras and Stratos, all issuing out of Caucasus. Out of the realme of Hircania, you enter into the countrey Margiana, so
B commendable for the warme Sunneshine weather there, and the onely place in all that quarter which yeeldeth vines. Environned it is on every side with goodly pleasant hils to the eie, for the compasse of 1500 stadia. Fortified it is besides, and affourdeth hard accesse unto it by reason of the sandie and barren desarts for the space of 120 myles. And situate it is even against the tract of Parthia, wherein *Alexander* the great sometime had built Alexandria, which being rased and destroied by the Barbarians, *Antiochus* the son of *Seleucus* reedified in the same place upon the river Margus, which runneth through it, together with another river Zocale, and it was called *Syriana. Howbeit, he desired rather that it should be named Antiochia. This cittie containeth in circuit 70 stadia: and into it, *Orodes* after that hee had defeated *Crassus* and his hoast, brought
C all the Romanes whom he had taken prisoners. Being past the high countrey Margiana, you come to the region of the Mardi, a fierce & savage people, subject unto none, they inhabit the mountaine Caucasus, and reach as farre as to the Bactrians. Beyond that tract are these nations, the Ochanes, Chomares, Berdrigei, Hermatotrophi, Bomarci, Commani, Marucæi, Mandrueni and Iatij. The rivers also, Mandrus and Gridinus. Beyond inhabite the Chorasmij, Gandari, Attasini, Paricani, Sarangæ, Parrasini, Maratiani, Nasotiani, Aorsi, Gelæ, whom the Greekes called Caduśij, and the Matiani. Moreover, in it stood the great towne Heraclea, built by *Alexander* the great, which afterwards was subverted and overthrowne: but when it was repaired againe by *Antiochus*, he named it Achais. Beneath in the countrey, the Derbines do inhabite, through whose marches in the very middest, runneth the river Oxus, which hath his beginning out of a lake cal-
D led Oxus. Beyond them are the Syrmatæ, Oxij, Tagæ, Heniochi, Bateni, Saraparæ, and Bactrians, with their towne Zariaspe, called afterwards Bactrum, of the river Bactra. This nation inhabiteth the backe parts of the hill Paropamisus, overagainst the source and spring of the river Indus, and is environned with the river Ochus. Beyond the Bactrianes are the Sogdianes, and Panda the principall cittie of that countrey. In the very utmost marches of their territorie standeth the towne Alexandria built by *Alexander* the great, wherein are to bee seene the Altars and Columnes, erected by *Hercules*, prince *Bacchus*, *Cyrus*, *Semiramis*, and *Alexander*: supposed and taken to be the very end of all their voiages in that part of the world, resting within the river Iaxartes, which the Scythians call Silys. For *Alexander* and his souldiours thought it had beene Tanais. Howbeit, captaine *Demonax*, who served under the kings *Seleucus* and *Antiochus*, passed
E over that river with an armie, and at the end of his voiage set up altars unto *Apollo Didymæus*. And this *Demonax* wee follow, especially in this description and Geographie of ours.

*Or rather Seleucia.

Chap. xvii.

& The Scythian nation.

Beyond the realme Sogdiana, inhabit the nations of the Scythians. The Persians were wont to call them in generall Sacas, of a people adjoining unto them, so named. In old time they were known by the name of Arameans. And on the other side, the Scythians for their part used to tearme the Persians, Chorsari: and the hill Caucasus, they called Graucasus, that is to say,
F white with snow. The principall nations of Scythia, bee the Saræ, Massagetæ, Dahæ, Essedones, Ariacæ, Rhymnici, Pesici, Amordi, Histi, Edones, Camæ, Camacæ, Euchatæ, Cotieri, Antariani, Pialæ, Arimaspi beforetime called Cacidiri, Asæi and Oetei. As for the Napæans & Apellæans who sometime dwelt there, they be utterly extinct and gone. The rivers there of name bee Mandagræus and Caspasius. And surely there is not a region wherein Geographers doe varie

and disagree more than in this: and as I take it, this commeth of the infinite number of those nations, wandering to and fro, and abiding never in one place. *Alexander* the great and *M. Varro* make report, that the water of the Scythian sea is fresh in tast, and potable. And in truth *Pompey* the great had such water brought unto him from thence to drinke, when he waged warre thereby against *Mithridates*: by reason no doubt of the great rivers that fall into it, which overcome the saltnesse of the water. *Varro* saith moreover, That during this expedition and journie of *Pompeius*, it was for certaine knowne, that it is but seven daies journey from out of India to the Bactrians countrey, even as farre as to the river Icarus which runneth into Oxus: and that the merchandise of India, transported by the Caspian sea, and so to the river Cyrus, may bee brought in five daies by land as farre as to Phasis in Pontus. Many Ilands there lie all over that sea: but one above the rest, and most renowned, is Tazata: for thither all the shipping from out of the Caspian sea and the Scythian Ocean, doe bend their course and there arrive: for that all the sea coasts doe affront the Levant, and turne into the East. The frontiers of Scythia from the first cape thereof, is unhabitable by reason of the snow that lieth continually: neither are the next regions thereto frequented and tilled, for the barbarous crueltie of those nations that border upon it: such as the Anthropophagi, who live of mans flesh, and haunt those parts. Hereupon it commeth, that you shall find nothing there but huge desart forrests, with a number of wild beasts, lying in wait for men as savage as themselves. When you are past this region, you enter againe among the Scythians, where you shall find likewise a wilderneſse full of wild beasts, even as far as to the promontorie and mountaine called Tabis, which regardeth the sea. In such sort as one moietie in manner of that coast, all along which looketh toward the East, lieth wast, and is not inhabited. The first people of any knowledge and acquaintaince, be the Seres, famous for the fine silke that their woods doe yeeld. They kembe from the leaves of their trees the hoarie downe thereof, and when it is steeped in water, they card and spin it, yea, and after their manner make thereof a sey or web, wherupon the dames here with us have a double labor both of undoing, and also of weaving againe this kind of yearne. See what adoe there is about it, what labour and toile it costeth, and how farre fet it is: and all for this, that our ladies and wives when they goe abroad in the street may cast a lustre from them, and shine againe in their silkes and velvets. As for the Seres, a mild and gentle kind of people they are by nature: howbeit, in this one point they resemble the bruit and wild beasts, for that they cannot away in the commerce with other nations, with the fellowship and societie of men, but shun and avoid their companie, notwithstanding they desire to *trafficke with them. The first river known among them is Psitaras: the next to it, Carabi: the third Lanos: and then you come to a cape of that name. Beyond it is the gulfe Chryse, the river Attanos, and another bay or creeke called Attanos. By it lieth the region of the Attaci, a kind of people, secluded from all noisome wind and aire, keeping upon hils, exposed to the pleasant Sunne shine, where they enjoy the same temperature of aire, that the Hiperboreans live in. Of this countrey and people, *Amonetus* hath written a severall booke of purpose: like as *Heratæus* hath compiled such another treatise of the Hyperboreans. Beyond the Attaci or Attacores, the Thyrians and Tocharians do inhabit; yea, and the Casirians, who now by this time belong to the Indians, and are a part of them. But they within-forth that lie toward the Scythians, feed of mans flesh. As for the Nomades of India, they likewise wander to and fro, and keepe no resting place. Some write, that they confine upon the very Ciconians and Brysanians on the North side. But there (as all Geographers doe agree) the mountaines Emodi arise and shoot up: and there entereth the countrey of the East Indians, and extendeth not onely to that sea, but also to the Southerne, which wee have named the Indian sea. And this part of the Orientall Indians, which lieth directly streight forth, as farre as to that place where India beginneth to twine and bend toward the Indian sea, containeth 1875 miles. And all that tract which windeth and turneth along the South, taketh 2475 myles (as *Eratosthenes* hath collected and set downe) even unto the river Indus, which is the utmost limit of India Westward. But many other writers have set downe the whole length of India in this manner, namely, that it requireth 40 daies and nights sailing, with a good gale of a fore-wind: also, that from the North to the South coast thereof, is 2750 myles. Howbeit, *Agrippa* hath put downe in writing that it is 3003 miles long, and 2003 broad. *Posidonius* took measure of it from the Northeast to the Southeast: and that by this means it is directly opposite unto Gaule, which hee likewise measured along the West coast, even from the Northwest point where the Sunne goeth downe at Midsummer, to the Southwest where it setteth in

* Even at this day they set abroad their wares with the prices, upō the shore, and goe their waies: then the forain merchants come and lay down the money, and have away the merchandise: and so depart without any communication at all.

A in the middest of Winter. He addeth moreover and saith, That this West wind which from behind Gaule bloweth upon India, is very healthsome and holesome for that countrey, and this he proved by very good reason and demonstration. And verily the Indians have a farre different aspect of the skie from us. Other starres rise in their Hemisphære, which we see not. Two Summers they have in one yeere, and as many harvests: and their Winter between hath the Etesian winds blowing in our dogdaies, in steed of the Northren blasts with us. The winds are kind & mild with them: the sea alwaies navigable: the nations there dwelling, and the citties and towns there built, innumerable, if a man would take in hand to reckon them all. For India hath been discovered, not onely by *Alexander* the great his mightie and puissant armie, and by other kings his successours, (and namely *Seleucus* and *Antiochus*, & their Admirall *Patrocles*, who sailed about it even to the
B Hircane and Caspian seas:) but also by diverse other Greek Authors, who making abode, and sojourning with the kings of India (like as *Megasthenes* and *Dionysius* sent thither of purpose from Philadelphus) have made relation of the forces which those nations are able to raise and maintaine. And yet further diligence is to bee emploied still in this behalfe, considering they wrote of things there so diverse one from another, and incredible withall. They that accompanied *Alexander* the great in his Indian voiage, have testified in their writings, that in one quarter of India which hee conquered, there were of townes 500 in number, and not one lesse than the citie Cos: of severall nations nine. Also that India was a third part of the whole earth: and the same so well inhabited, that the people in it were innumerable. And this they delivered (beleeve me) not without good apparance of reason: for the Indians were in manner the onely men of all others that
C never went out of their owne countrey. Moreover, it is said, That from the time of *Bacchus* unto *Alexander* the great, there reigned over them successively 154 kings, for the space of 5402 yeeres betweene, and three moneths over. As for the rivers in that countrey, they be of a wonderfull bigneese. And reported it is, that *Alexander* sailed every day at the least 600 stadia upon the river Indus, and yet in lesse than five months and some few daies over, hee could not come to the end of that river: and lesse it is than Ganges by the confession of all men. Furthermore, *Seneca* a Latine writer, assaied to write certaine commentaries of India: wherein he hath made report of 60 rivers therein, and of nations, 120 lacking twaine. As great a labour it were to reckon up and number the mountaines that bee in it. As for the hils Imaus, Emodisus, Paropamisus, as parts all and members of Caucasus, butt one upon another, and conjoine together. And being past them
D yee goe downe into a mightie large plaine countrey, like to Ægypt. It remaineth now to shew the continent and firme land of this great countrey, and for the more evident demonstration, let us follow the steps of *Alexander* the great, and his Historiographers. *Diogneus*, and *Beton* who set downe all the geasts & journeies of that prince, have left in writing, That from the Caspian ports unto the citie Hecatompylos which is in Parthia, there are as many miles as we have set down alreadie. From thence to Alexandria in the Ariane countrey (which citie the same king founded) 562 myles: from whence to Prophthasia in the Dranganes land, 199 miles: and so forward to the capitoll towne of the Arachosians, 515 myles. From thence to Orthospanum, 250 myles: last of all, from it to the cittie of Alexandria in Opianum, 50 myles. In some copies these numbers are found to varie and differ. But to returne to this foresaid citie, situate it is at the very foot of Cau-
E casus. From which to the river Chepta and Pencolaitis, a towne of the Indians, are counted 227 myles. From thence to the river Indus and the towne Tapila, 60 myles: and so onward to the noble and famous river Hidaspes, 120 myles: from which to Hypasis, a river of no lesse account than the other 4900, or 3900. And there an end of *Alexanders* voiage. Howbeit, he passed over the river, and on the other side of the banke, hee erected certaine altars and pillers, and there dedicated them. The letters also of the king himselfe, sent backe into Greece, do carie the like certificate of his journies, and agree just herewith. The other parts of the countrie were discovered & surveied by *Seleucus Nicator*: namely from thence to Hesudrus 168 miles: to the river Ioames as much: and some copies adde 5 miles more therto: from thence to Ganges 112 miles: to Rhodapha 119, and some say, that between them two it is no lesse than 325 miles. From it to Calinipaxa, a great town 167 miles & an halfe, others say 265. And so the confluent of the rivers Iomanes and Ganges, where both meet together 225 miles, and many put thereto 13 miles more: from thence to the town Palibotta 425 miles: and so to the mouth of Ganges where he falleth into the sea 638 miles. As for the nations, which it paines me not to name, from the mountaines Emodi, & the principall cape of them, Imaus, which signifieth in that country language full of snow, they

be these: the Isari, Cosyri, Izgi, & upon the very mountains, the Ghisiotosagi: also the Brachmanæ, a name common to many nations, among whom are the Maccocalingæ. Of rivers besides, there are Pinnas & Cainas, the later of which twain runneth into Ganges, & both are navigable. The people called Calingæ, coast hard upon the sea. But the Mandei and Malli, among whom is the mountaine Mallus, are above them higher in the countrey. And to conclude, then you come to Ganges, the fartheſt bound and point of all that tract, India. G

Chap. XVIII.

The river Ganges.

MAny have beene of opinion, and so have written, that the spring of Ganges is uncertain, like as that also of Nilus: and that he swelleth, overfloweth, and watereth all the countries whereby he passeth, in the same sort that Nilus doth. Others againe have said that it issueth out of the mountaines of Scythia: and how into it there run 19 other great rivers: of which over and above those beforenamed, certaine are navigable, namely, Canucha, Vama, Errannoboa, Cosaogus, and Sonus. There bee also that report, that Ganges presently ariseth to a great bignesse of his owne sources and springs, and so breaketh forth with great noise and violence, as running downe with a fall over craggie and stonie rockes: and when hee is once come into the flat plaines and even countrey, that he taketh up his lodging in a certaine lake: and then out of it carrieth a mild and gentle streame, 8 miles broad where it is narrowest: and 100 stadia over for the most part, but 160 where he is largest: but in no place under 20 paces deepe, [i. a 100 foot.] H J

Chap. XIX.

The nation of India, beyond the river Nilus.

WHen yee are over Ganges, the first region upon the coast that you set foot into, is that of the Gandaridæ and the Calingæ, called Parthalis. The king of this countrey hath in ordinance for his warres 80000 foot, 1000 horse, and 700 Elephants, readie upon an houres warning to march. As for the other nations of the Indians that live in the champion plaine countries, there be diverse states of them, of more civilitie than the mountainers. Some applie themselves to tillage and husbandry: others set their minds upon martiall feats: one sort of them practise merchants trade, transporting their owne commodities into other countries, and bringing in forraine merchandise into their owne. As for the nobilitie and gentrie, those also that are the richest and mightiest among them, they manage the affaires of State and Commonweale, and sit in place of justice, or else follow the court, and sit in counsell with the king. A fift estate there is besides in great request, & namely of Philosophers and Religions, given wholly to the studie of wisdome and learning; and these make profession of voluntarie death: and verily, when they are disposed to die at any time, they make a great funeral fire, cast themselves into it, and so end their daies. Besides all these, one thing there is amongst them halfe brutish, and of exceeding toile & travell (and yet it is that which partly maintaineth all the other estates aboveſaid) namely, the practise of hunting, chasing and taming Elephants. And in very truth, with them they plough their ground, upon them they ride up and downe: with these beasts are they best acquainted: they serve in the wars for the maintenance of their libertie, & defence of their frontiers against all invasion of enemies. In the choise of them for warre-service, they regard and consider their strength, their age, and bignesse of bodie. But to leave them. An Island there is within the river Ganges, between two armes thereof, of great largenesse and capacitie, which receiveth one nation by it selfe, apart from others, and named it is Modogalica. Beyond it are seated the Modubians and Molindians, where standeth the stately cittie Molinda, situate in a plentifull and rich soile. Moreover, the Galmodroesians, Prerians, Calissæ, Saturi, Fassalæ, Colubæ, Orxulæ, Abali, and Talactæ. The king of these countries hath in ordinarie for his warres 50000 foot, 3000 horse, and 400 Elephants. Then you enter into a countrey of a more puissant and valiant nation, to wit, the Andarians, planted with many villages well peopled: and moreover with thirtie great townes, fortified with strong walls, towers, & bastiles. These find and maintaine prest and readie to serve the king in his wars, an Infanterie of 100000 foot, a Cavallerie of 2000 horse, and a 100 Elephants besides, well appointed. Of all the regions of India, the Dardanian countrey K I M N

is

A is most rich in gold mines; and the Selian, in silver. But above all the nations of India throughout, and not of this tract and quarter onely, the Prasij farre exceed in puissance, wealth, and reputation; where the most famous, rich, and magnificent citie Palibotria standeth: whereof some have named the people about it, yea and all the nation generally beyond Ganges, Palibotrians. Their king keepeth continually in pay 600000 footmen, 30000 horsmen, and 9000 Elephants, every day in the yeere. Whereby you may soone guesse the mightie power and wealth of this prince. Beyond Palibotria, more within the firme land, inhabite the Monedes and Suari, where standeth the mountaine Maleus: and there for sixe moneths space, the shadowes in winter time fall Northward; and in summer season, goe into the South. The pole Arcticke starres in all that tract, are seene but once in the yeere, and that, no longer than for 15 dayes, as *Beton* maketh re-
B port: but *Megasthenes* writeth, that this is usuall in other parts of India. The Antarctick or South pole, the Indians call Dromosa. As for the river Iomanes, which runneth into Ganges, it traverseth through the Palibotrians countrey, and passeth betweene the townes Methora and Cyrisoborca. Beyond the river Ganges, in that quarter and climate which lyeth Southward, the people are caught with the sunne, and begin to be blackish: but yet not all out so sun-burnt and black indeed as the Moores and Æthiopians. And it seemeth, that the neerer they approach to the river Indus, the deeper coloured they are and tanned with the sunne: for you are not so soone past the Prasians country, but presently you are upon Indus: and among the mountains of this tract, the Pygmæans (by report) doe keepe. *Artemidorus* writeth, that betweene these two rivers, there is a distance of 21 miles.

C

Chap. xx.

The river Indus.

THe great river Indus, which the people of that countrey call Sandus, issueth out of a part or dependance of the hill Caucasus, which is called Paropamisus: he taketh his course and runneth full against the sun-rising, and maketh 19 rivers more to loose their names, which he taketh in unto him. Among which, the principall are these, Hydaspes one, bringing with him foure more: and Cantabra another, accompanied with three besides. Moreover, of such as are of themselves navigable without the help of others, Acesines and Hypasis. And yet for all these
D additions, the river of Indus (such a sober and modest course as it were, his waters keepe) is in no place either above 50 stadia over, or deeper than 15 paces, *i.* threescore and fifteene foot, or twelve fadome and a halfe. This river encloseth within two braunches of it, a right great Island named Prasiane, and another that is lesse, which they call Patale. As for himselfe, they that have written of him with the least, say that hee beareth vessels for 1240 miles: and turning with the course of the sunne, keepeth him companie Westward, untill he is discharged into the Ocean. The measure of the sea-coast from Ganges unto him, I will set downe generally and in grosse, as I find it written: albeit there is no agreement at all of Authors, as touching this point. From the mouth of Ganges where he entreth into the sea unto the cape Caliugon, and the towne Dandagula, are counted 725 miles: from thence to Tropina 1225 miles. Then to the promontorie of
E Perimula, where standeth the chiefe mart or towne of merchandise in all India, they reckon 750 miles: from which to the towne aboveseid Patale within the Island 620 miles. The mountainers inhabiting betweene it and Iomanes, are the Cesti and Celiboni, wild and savage people: next to them, the Megallæ, whose king hath in ordinarie prest for service 500 Elephants; of foot and horsemen a great number, but uncertaine it is how many; sometime more, sometime fewer. As for the Chrysæans, Parasangians, and Asangians, they are full of the wild and cruell tygres: they are able to arme 30000 foot and 800 horse, and to set out with furniture 300 Elephants. This countrey is on three sides environed and enclosed with a raunge of high mountaines: all desert and full of wildernesse for 625 miles, and of one side confined with the river Indus. Beneath those wild hills, you enter among the Dari and Suræ; and then you come againe to wast deserts for
F 188 miles, compassed about for the most part with great barres and bankes of sand, like as the Islands with the sea. Vnder these desert forrests, you shall meet with the Maltecores, Cingians, Marobians, Rarungians, Moruntes, Masuæ, and Pangungæ. Now for those who inhabite the mountaines, which in a continuall raunge without interruption stand upon the coasts of the Ocean, they are free states and subject to no prince, and many faire townes and cities they hold among

among theſe cliffes and craggie hills. Then come you to the Naræans, encloſed within the high- G
eſt mountaine of all the Indian hills, Capitalia. On the other ſide of this mountaine, great ſtore there is all over it, of gold and ſilver mines, wherein the inhabitants doe digge. Then, yee enter upon the kingdome of Oratura, whoſe king hath indeed but 10 Elephants in all, howbeit a great power of footmen. And ſo forward to the Varetates, who under their king keepe no Elephants at all for his ſervice, truſting upon their Cavallerie and Fanterie, wherein they are ſtrong. And next to them the Odomboërians and Salabaſtres, where ſtandeth a goodly faire citie called Horata, environed and fortified with deepe foſſes and ditches full of ſtanding water: wherein there keepe a great number of Crocodiles, which for the greedie appetite they have to devoure mens bodies, will ſuffer none to paſſe into the towne, but over the bridge. Another towne there is beſides among them, of great name and importance, to wit, Automela, ſtanding upon the ſea ſide; H
and otherwiſe much reſort there is unto it of merchants from al parts, by reaſon of 5 great rivers which meet all there in one confluence. Their king maintaineth in ordinarie 1600 Elephants, 150000 footmen, and 5000 horſe. The king of the Charmians is but poore to ſpeake of, his ſtrength lyeth in 60 Elephants; for his power otherwiſe is but ſmall. Being paſt that realme, you come into the countrey of the Padians, the only nation of all the Indians, which is governed by women. One of this ſexe, they ſay, was begotten ſometime by *Hercules*, in which regard ſhee was the better accepted, and had the prerogative of the regencie over the greateſt kingdome. From her the other Queens fetch their pedigree, and have the dominion and rule over thirtie great townes, and the commaund of 150000 foot and 500 Elephants. Beyond this realme, you come to the nation of the Syrieni, containing 300 cities: and from them to the Deraugæ, Poſunge, I
Bugæ, Gogyarei, Vmbræ, Nereæ, Brancoſi, Nobundæ, Cocondæ, Neſei, Pedatritæ, Solobriaſæ, and Oloſtræ, who confine upon the Iſland * Patale: from the utmoſt point of which Iſland unto the gates Caſpiæ, are reckoned 18025 miles. Now on this ſide the river Indus, juſt againſt them, as appeareth by evident demonſtration, there dwell the Amatæ, Bolingæ, Gallitalutæ, Dimuri, Megari, Ordabæ, and Meſæ. Beyond them, the Vri and Sileni: and then you come to the deſerts for 250 miles: which when yee have paſſed over, you ſhall meet with the Organages, the Abaorts, Sibaræ, and the Suertæ: and beyond theſe, a wilderneſſe againe, as great as the former. Paſſe on farther, you come among the Sarophages, Sorgæ, Baraomatæ, and the Gunbretes: of whome there be 13 ſeverall nations, and each one hath two great cities apeece. As for the Aſeni, they people three cities: their capital cite is Bucephala, built in the very place where king K
Alexanders horſe called Bucephalus, was enterred. Above them, are the mountainers on the riſing of the hill Caucaſus, named Soleadæ and Sondræ: and when you are on the other ſide of the river Indus, as you goe along the coaſt and banks thereof, you ſhall ſee the Samarabrians, the Sambrucenes, the Briſabrites, Oſij, Autixeni, and Taxillæ, with a famous citie called Amandra: of which all that tract now lying more flat and plaine within the countrey, is named Amandria. Foure other nations there are beſides of Indians, the Peucolaitæ, Arſagalites, Geretes, and Aſei: for many of the Geographers ſet not down Indus the river, for to determine the matches of the Indians Weſtward; but lay thereto 4 other provinces and ſeverall ſeignories, to wit, of the Gedroſians, Arachotes, Arij, and Paropamiſades.

* Babul.

L

Chap. xxi.

The Arij, and other nations depending unto them.

OTher writers are of opinion, that the utmoſt frontier and limit of India, is the river Cophetes, and both it and all thoſe quarters are included within the territorie or province of the Arij: yea and moſt of them affirme, that the citie Nyſa, as alſo the mountaine Merus conſecrated to god *Bacchus*, belong unto India as parcels thereof. This is that mountaine whereof aroſe the poëticall fable, That *Bacchus* therein was borne and iſſued out of *Iupiter* his thigh. Likewiſe they aſſigne and lay to India, the countrey of the Aſpagores, ſo plentifull in vines, laurels, and box, and generally of all ſorts of apple trees and other fruitfull trees that grow within M
Greece. Many ſtraunge, wonderfull, and in maner fabulous things, they report of the fertilitie of that land, of the divers ſorts of corne, of trees bearing cotton, of wild beaſts, of birds, and other creatures there breeding and living: which becauſe they are not properly belonging to this treatiſe now in hand, I will reſerve them for another part of this worke, and write more particularly

A larly of them in their due and severall places. And as for those 4 provinces or Satrapies, which I touched before, I will speake of them soone after and within a while: for now I haſten and think it long untill I have said somwhat of the Island Taprobane. And yet before I come to it, there be other Isles which I cannot passe by, and namely that of Patala, which I noted to lye in the verie mouth of the river Indus, and it carrieth the forme and fashion of a triangle figure, and is 220 miles long. Without the mouth of the river Indus, two other Islands there be, Chryse and Agyræ, so named (as I thinke) of the gold and silver mines which they doe yeeld: for I cannot easily beleeve, that the verie earth and soile there is all gold and silver entire, as some have made report. Twentie miles from them, lyeth the Isle Crocala: and 12 miles farther into the sea, Bibaga; where, of oysters and other shell-fishes called Purples, are found good store. And last of all, nine
B miles beyond it, Toralliba sheweth it selfe, and many other petie Islands of no regard.

Chap. xxii.

The Iland Taprobane.

IT hath beene of long time thought by men in auncient dayes, that Taprobane was a second world, in such sort as many have taken it to be the place of the Antipodes, and called it, The Antichthones world. But after the time of *Alexander* the Great, and the voiage of his armie into those parts, it was discovered and knowne for a truth, both that it was an Island, and what compasse it bare. *Onesicratus* the Admirall of his fleet, hath written, that the Elephants bred in
C this Island be bigger, more fierce and furious for war-service, than those of India. *Megasthenes* saith, that there is a great river which parteth it in twaine, and that the people thereof dwelling along the river, be called Palæogoni: adding moreover, that it affourdeth more gold, and bigger pearles by far, than India doth. *Eratosthenes* also tooke the measure thereof, and saith, that in length it beareth 7000 stadia, and in bredth 5000: that in it there be no cities & great towns, but villages to the number of 700. It beginneth at the Levant sea of Orientall Indians, from which it stretcheth and extendeth between the East and West of India: and was taken in times past to lye out into the sea from the Prasian countrey twentie dayes sailing. But afterwards, for that the boates and vessels used upon this sea in the passage thither, were made and wound of papyr reeds like those of the river Nilus, and furnished with the same kind of tackling, the voyage thither
D from the foresaid countrey was gaged within a lesse time: and well knowne it was, that according to the saile of our ships and gallies, a man might arrive there in seven daies. All the sea lying betweene, is verie ebbe, full of shallowes and shelves, no more than five fathom deepe. Howbeit in certain chanels that it hath, it is so deepe that it cannot be sounded, neither will any ancres reach the botome and there rest: and withall, so streight and narrow these chanels are, that a ship cannot turne within them: and therefore to avoid that necessitie of turning about in these seas, the ships have proes at both ends, and are pointed ech way. In sailing, they observe no starre at all. As for the North pole, they never see it: but they carrie ever with them certaine birds in their shippes, which they send out oftentimes when they seeke for land, observing ever their flight; for knowing well that they will flie to land, they accompanie them, and bend their course accor-
E dingly: neither use they to saile more than one quarter in the yeere: and for one hundred dayes after the sunne is entred into Cancer, they take most heed and never make saile; for during that time it is winter season with them. And thus much we come to knowledge of, by relation of auncient writers. But wee came to farre better intelligence, and more notable information, by certaine Embassadours comming out of that Island, in the time of *Claudius Cæsar* the Emperour: which happened upon this occasion and after this manner. It fortuned, that a freed slave of Annius Plocamus, who had fermed of the Exchequer the customes for impost of the red sea, as he made saile about the coasts of Arabia, was in such wise driven with the North winds besides the realme of Carmania, and that for the space of 15 dayes, that in the end hee fell with an harbour thereof called Hippuros, and there arrived. When he was set on land, he found the king of that
F countrey so courteous, that hee gave him entertainment for 6 moneths, and entreated him with all kindnesse that could be devised. And as he used to discourse and question with him about the Romanes and their Emperour, he recounted unto him at large of all things. But among many other reports that he heard, he wondred most of all at their justice in all their dealings, and was in love therewith, and namely, that their Denieres of the money which was taken were alwaies of

like

like weight, notwithstanding that the sundry stamps and images upon the peeces shewed plainly that they were made by divers persons. And hereupon especially was he mooved and solliciG
ted to seeke for the alliance and amitie of the people of Rome: and so dispatched 4 Embassadours of purpose, of whome one *Rachias* was the chiefe and principall personage. By these Embassadours we were enformed of the state of that Island, namely, that it contained five hundred great towns in it: and that there was a haven therin regarding the South coast, lying hard under Palesimundum the principall citie of all that realme, and the kings seat and pallace: that there were by just account 200000 of commoners and citizens: moreover, that within this Iland there was a lake 270 miles in circuit, containing in it certaine Islands good for nothing else but pasturage, wherein they were fruitfull; out of which lake there issued two rivers, the one, Palesimundas, passing neere to the citie abovesaid of that name, and running into the haven with three H
streames, whereof the narrowest was five stadia broad, and the largest 15; the other Northward on India side, named Cydara: also that the next cape of this countrey to India, is called Colaicum, from which to the neerest port of India is counted four daies sailing: in the mids of which passage, there lyeth in the way, the Iland of the Sunne. They said moreover, that the water of this sea was all of a deepe greene colour; and more than that, full of trees growing within it: insomuch as the pylots with their helmes many times brake off the heads and tops of those trees. The starres about the North pole, called Septentriones, the Waines or Beares, they wondred to see here among us in our Hemisphere: as also the Brood-hen, called *Vergiliæ* in Latine, as if it had been another heaven. They confessed also they never saw with them, the moone above the ground before it was 8 dayes old, nor after the 16 day. That the Canopus, a goodly great and I
bright starre about the pole Antarcticke, used to shine all night with them. But the thing that they marveiled and were most astonied at was this, that they observed the shadow of their own bodies fell to our Hemisphere, and not to theirs; and that the sunne arose on their left hand and set on their right, rather than contrariwise. Furthermore they related, that the front of that Iland of theirs which looked toward India, contained 10000 stadia, and reached from the Southeast beyond the mountains Enodi. Also, that the Seres were within their kenning, whom they might easily discover from out of this their Island; with whome they had acquaintance by the meanes of trafficke and merchandise: and that *Rachias* his father used many times to travaile thither. Affirming moreover, that if any straungers came thither, they were encountred and assailed by wild and savage beasts: and that the inhabitants themselves were giants of stature, exceeding the K
ordinarie proportion of men, having red haire, eies of colour blewish, their voice for sound horrible, for speech not distinct nor intelligible for any use of trafficke and commerce. In all things else their practise is the same that our merchants and occupiers doe use: for on the farther side of the river, when wares and commodities are laid downe, if they list to make exchaunge they have them away, and leave other merchandise in lieu thereof to content the forrein merchant. And verily no greater cause have we otherwise to hate and abhor this excessive superfluitie, than to cast our eye so far and consider with our selves, what it is that we seeke for, from what remote parts we fetch it, and to what end we so much desire all this vanitie. But even this Island Taprobane, as farre off as it is, seeming as it were cast out of the way by Nature, and divided from all this world wherein we live, is not without these vices and imperfections wherewith we are tainL
ted and infected. For even gold and silver also is there, in great request and highly esteemed: and marble, especially if it be fashioned like a tortoise shell. Iemmes and precious stones; pearles also, such as be orient and of the better sort, are highly prised with them: and herein consisteth the verie heigth of our superfluous delights. Moreover, these Embassadours would say, that they had more riches in their Island, than wee at Rome, but we more use thereof than they. They affirmed also, that no man with them had any slaves to commaund: neither slept they in the morning after day-light, ne yet at all in the day time. That the manner of building their houses was low, somewhat raised above the ground and no more adoe: that their markets were never deare, nor price of victuals raised. As for courts, pleading of causes, and going to law, they knew not what it meant. *Hercules* was the onely god whome they worshipped. Their king was M
alwayes chosen by the voices of the people: wherein they had these regards; that hee were aged, mild, and childlesse: but in case hee should beget children afterward, then hee was deposed from his regall dignitie, to the end that the kingdome should not in processe of time be hereditarie and held by succession, but by election onely. This king being thus chosen and

invested,

A inveſted, hath thirtie other governours aſſigned unto him by the people: neither can any perſon bee condemned to death, unleſſe hee be caſt by the more part of them, and pluralitie of voices: and thus condemned as hee is, yet may hee appeale unto the people. Then are there 70 judges deputed to ſit upon his cauſe: and if it happen that they aſſoile and quit this partie condemned: then thoſe 30 who condemned him, are diſplaced from their ſtate and dignitie, with a moſt bitter and greevous rebuke, and for ever after, as diſgraced perſons live in ſhame and infamie. As for the king, arraied he is in aparrell as prince *Bacchus* went in old time: but the ſubjects and common people are clad in the habit of Arabians. If it fortune that the king offend, death is his puniſhment: howbeit, no man taketh in hand to doe execution. All men turne away their faces from him, and deigne him not a looke nor a word. But to doe him to death in the end, they
B appoint a ſolemne day of hunting, right pleaſant and agreeable unto Tygres and Elephants, before which beaſts they expoſe their king, and ſo he is preſently by them devoured. Moreover, in that Iſland good husbands they are for their ground, and til the ſame moſt diligently. Vines have they no uſe of at all: for all ſorts of fruits otherwiſe they have abundance. They take alſo a great pleaſure and delight in fiſhing, and eſpecially in taking of tortoiſſes: and ſo great they are found there, that one of their ſhels will ſerve to cover an houſe: and ſo the inhabitants doe employ them in ſteed of rouſes. They count an hundred yeeres no long life there: that is the ordinarie time of their age. Thus much we have learned and knowne as touching Taprobane. It remaineth now to ſay ſomewhat of thoſe foure Satrapies or provinces, which we did put off unto this place. Of them therefore as followeth.

C

Chap. XXIII.

Capiſſene, Carmania.

BEyond thoſe nations that confine hard upon the river Indus, as ye turne toward the mountaines, yee enter upon the realme of Capiſſæne, wherein ſometime ſtood the citie Capiſſa, which *Cyrus* the king cauſed to bee raſed. At this day there ſtandeth the citie Arachoſia, with a river alſo of that name in the countrey Arachoſia: which citie ſome have called Cophe, founded by queene *Semiramis*. There likewiſe is to be ſeen the river Hermandus, which runneth by Abeſte, a citie of the Arachoſians. The next that confront Arachoſia Southward, toward part
D of the Arachotes, are the Gedroſi: and on the North ſide, the Paropamiſades. As for the towne Cattana, named afterwards Tetragonius, ſituate it is at the foot of the mountain Caucaſus. This countrey lieth overagainſt the Bactrians: then you come to the principall towne thereof Alexandria, named ſo of king *Alexander* the founder thereof: upon the marches whereof are the Syndrari, Dangulæ, Porapiani, Cantaces, and Maci. Moreover, upon the hill Caucaſus ſtandeth the towne Cadruſi, built likewiſe by the ſaid *Alexander*. On this ſide all theſe regions lieth the coaſt of the river Indus. Then followeth the region of the Arianes, all ſcorched and ſenged with the parching heat of the Sunne, and environned about with deſerts: howbeit, many ſhaddowie vallies lie betweene to allay the exceeding heat. Well peopled it is about the two rivers eſpecially, Tonderos and Aroſapes. Therein ſtandeth the citie Artaccana. Being paſt it, the river Arius
E runneth under the citie Alexandria, built by *Alexander* the great. The towne containeth in compaſſe 30 ſtadia. Then come you to Artacabane, a cittie as it is much more auncient, ſo it is alſo fairer by farre, which by *Antiochus* the king was walled the ſecond time, and enlarged to 50 ſtadia. The next in order is the nation of the Doriſci. The rivers Pharnacotis and Ophradus. Prophtaſia, a towne in Zaraſparia. The Drangæ, Argetæ, Zarangæ, and Gedruſij. Townes moreover, Peucolais and Lymphorta. After you are paſt their territorie, you enter into the deſerts of the Methoricanes: and ſo to the river Mauain, and the nation of the Augutturi. The river Borru, the people called Vrbi, the navigable river Ponamus, which paſſeth through the marches of the Pandanes. Over and beſides, the river Ceberon within the countrey of the Sorares, which in the mouth thereof where it falleth into the ſea, maketh many baies and harbours. As you go far-
F ther, you come upon the towne Candigramma, with the river Cophes: into which there runne other rivers that carrie veſſels, to wit, Sadarus, Paraſpus, and Sodinus. As for the countrey Daritus, ſome would have it to be a part of Ariana, and they ſet downe the meaſure of them both together, to be in length 1950 miles, and in breadth leſſe by halfe than India. Others have ſet down that the countrey of the Gedruſians and Scyrians may containe 183 miles. Being paſſed which

quarters,

quarters, you enter into the region of the Ichthyophagi, surnamed Oritæ or Mountainers (who have a proper language by themselves, and speake not in the Indian tongue) which reacheth on still for 200 miles. And beyond it you meet with the people of the Arbians, who likewise continue for other 200 miles. As for those Ichthyophagi beforenamed, *Alexander* by an expresse edict forbad them all to feed on fish. Being past them, you ate in the deserts: and beyond them you come into Carmania, Persis, and Arabia. But before that we treat distinctly of these countries, I thinke it meet to set downe what *Onesicritus* (who having the conduct of a fleet under *Alexander* the great, sailed from off India, about the Southerly coasts of Persis) reporteth, according to those intelligences which came lately from king *Juba*. In like manner those voiages of ours for these yeeres past, performed, by which even at this day wee are guided. Howbeit, in the reports made by *Onesicritus* and *Nearchus* of their navigations, we find neither the distance, ne yet the names of the severall resting places, after every daies journey. And to begin with the citie Xylenepolis built by *Alexander*, from which they entred first into their voiage, it is not put downe by them, either in what place it is situate, nor upon what river. Yet these particulars following are by them reported worth remembrance: to wit, that in this voiage *Nearchus* founded a town in those parts: that the river Nabrus runneth therby, and is able to bear great vessels: overagainst which there is an Island 70 stadia within the sea. Moreover, that *Leonatus* caused Alexandria to be built in the frontiers of that region, by direction and commaundement from king *Alexander*, where the river Argenus entereth into the sea, and yeeldeth a safe and commodious haven. Also that the river Tuberum is navigable, along the bankes whereof the Parites inhabite. And after them the Ichthyophagi, who take up so long a tract, that they were 20 daies sailing by their coasts. They make relation likewise of the Island of the Sun, named also the couch or bed of the nimphs: This Island is red all over, and no living creature will live therein, but is consumed and perisheth no man knoweth how or upon what cause. They speake besides of the nation of the Orians: as also of Hytanis a river in Carmania, which affourdeth many baies and harbours, yea, and plentie of gold in the gravell and sand thereof. And here was the first place wherein they observed, that they had a sight of the North-pole starre. As for the starre *Arcturus*, they affirmed, that they saw it not every night, nor at any time all night long. Furthermore, that the countrey of the Achæmenides in Persea, reached thus farre. Over and besides, that as they travelled, ordinarily they found good store of mines, wherein was digging for brasse, yron, Arsenicke or Sardaracha, and Vermillion. And then they came to the cape of Carmania: from which to the coast overagainst them of the Maræ, a people in Arabia, the cut over sea is 50 miles. Vpon these coasts they discovered three Islands, whereof Organa onely is inhabited, by reason of fresh waters within it, and from the continent it lieth about 25 miles. And foure Islands more they fell upon, even in the Persian gulfe overagainst Persia. And about these Islands they might see sea-adders and serpents so monstrous great, that as they came swimming toward them, they put the very fleet in great fright, for there were among them some, 20 cubites long. Beyond it they met with the Island Acrotadus: likewise the Gaurates Isles, wherein the nation of the Chiani doe inhabite. About the middle of this gulfe or arme of the sea, the river Hiperis hath his course, able to bear great hulkes and ships of burden. Also the river Sitiogagus, upon which a man may passe in seven daies to Pasargadia. Also a river that is navigable called Phirstimus, and an Island within it, but it is nameless. As for the river Granius which runneth through Susiane, it carrieth but small vessels. Along the coast on the right hand of this river dwell the Deximontanes, who dresse and prepare Bitumen. Then they came to the river Oroatus, with a daungerous haven or mouth where it falleth into the sea, unlesse a man be guided by skilfull pilots: and full against this river there are discovered two little Islands. Past which, the sea is very low and shallow, full of shelves and sands, more like a meere and marish water, than a sea. Howbeit, there bee certaine trenches or channels in it that draw deepe water, wherein they may without daunger saile. Then met they with the mouth of the river Euphrates. Also the lake, which the two rivers Eulæus and Tigris doe make, neere unto Characum. And so from thence they arrived upon the river Tigris, at Susa. And there an end of the navigation performed by *Onesicritus* and *Nearchus*. For after they had beene three months embarked and in their voiage upon the sea, they found *Alexander* at Susa (where he feasted and made solemne bankets) and that was seven months after he parted from them at Patalæ. And thus much concerning the voiage of *Alexander* his fleet. Now afterwards from Syagrus, a Promontorie in Arabia, it was counted unto Patale 1332 miles, and held it was for certain then,

that

A that the Weſt wind which the people of that countrey call Hypalus, was thought moſt proper for to make ſaile to the ſame place. Howbeit the age enſuing diſcovered a ſhorter and ſafer cut, namely, if from the ſaid promontorie or cape Syagrus, they ſet their courſe directly to the mouth of the river Zizerus, which maketh an harborough in India. And in truth this paſſage held a long time, untill ſuch time that in the end the merchants found out a more compendious and ſhorter courſe, and gained by their voiage to India: for every yeere now they ſaile thither, and for feare of pirates and rovers that were wont very much to infeſt and annoy them, they uſed to embarke in their ſhips certaine companies of Archers. And ſeeing that all theſe ſeas are now diſcovered, and never before ſo certainely, I will not thinke much of my paines, to declare and ſhew the whole courſe of our Indian voiages from out of Ægypt. And firſt and formoſt this is a thing
B worthie to be noted and obſerved of every man, that there is not a yeere goeth over our heads, but it coſts our State to furniſh a voiage into India, 500 hundred thouſand Seſterces, *i.* fiftie millions of Seſterces. For which the Indians ſendeth backe againe commodities and merchandiſe of their owne, which being at Rome, are ſold for an hundred times as much as they coſt, or yeeld in the price an hundredfold gaine. But to returne againe to our voiage, from Alexandria in Ægypt, it is two miles to Iuliopolis: from whence upon the river of Nilus, they ſaile 303 miles to Coptus, which may be done in twelve daies ſpace, having the Eteſian winds at the poupe. From Coptus they travell forward upon Cammels backs: and for great default of water in thoſe parts, there be certaine ſet places for bait, lodging, and watering. The firſt is called Hydreuma, 32 miles from Coptus. The ſecond one daies journey from thence, in a certaine mountaine. The third
C watering place at another Hydreuma, 95 miles from Coptus. The fourth againe in a ſecond mountaine. The fifth is at a third Hydreuma of *Apollo*, from Coptus 184 miles. Beyond which, the reſting place is upon another hill. And then to Hydreuma the new, from Coptus 234 miles. Another water towne there is, called Hydreuma the old, named alſo Troglodyticum, where two miles out of the port way lieth a garriſon, keeping watch and ward both day and night: and foure miles diſtant it is from new Hydreuma. From whence they travell to the town Berenice, an haven towne ſtanding upon the red ſea, 258 miles from Coptus. But for as much as the journey all this way is for the moſt part performed in the night ſeaſon, by reaſon of the exceſſive heat, and the travellers are forced to reſt all the day long, therefore twelve daies are ſet down for the whole voiage betweene Coptus and Berenice. The time then that they uſually begin to ſet ſaile, is about
D Midſummer before the dog daies, or preſently upon the riſing of the dog ſtarre. And about the 30 daies end they arrive at Ocelis in Arabia, or els at Cama, within Saba, the country of incenſe. A third port there is beſides called Muza, unto which there is no reſort of merchants out of India: neither is it in requeſt but with merchants that adventure onely for incenſe, drugs, and ſpices of Arabia. Howbeit, peopled this countrey is within-forth, and hath divers great townes. Of which, Saphar is the principall, and the kings ſeat: and another beſides of good importance called Sabe. But for them that would make a voiage to the Indians, the moſt commodious place to ſet forward is Ocelis: for from thence, and with the Weſt wind called Hypalus, they have a paſſage of fortie daies ſailing to the firſt towne of merchandiſe in India, called Muziris. Howbeit a port this is, not greatly in requeſt, for the daunger of pirates and rovers, which keepe ordinarily
E about a place called Hydræ: and beſides that, it is not richly ſtored and furniſhed with merchandiſe. And more than ſo, the harborough is farre from the towne, ſo as they muſt charge and diſcharge their wares too and fro in little boats. At the time when I wrote this ſtorie, the king that reigned there, was named *Celebothras*. But another haven there is more commodious, belonging to the Necanidians, which they cal Becare: the kings name at this preſent is *Pandion*: not far off is another town of merchandiſe within the firme land, called Maduſa. As for that region, from whence they tranſport pepper in ſmall punts or troughes made of one peece of wood, it is named Cotona. And yet of all theſe nations, havens, and townes, there is not a name found in any of the former writers. By which it appeareth, that there hath been great change and alteration in theſe places. But to come againe to India, our merchants returne from thence back in the begin-
F ning of our moneth December, which the Ægyptians call Tybis: or at fartheſt before the ſixt day of the Ægyptians month Machiris, and that is before the Ides of Ianuarie: and by this reckoning they may paſſe to and fro, and make returne within the compaſſe of one yeer. Now when they ſaile from India, they have the Northeaſt wind Vulturnus with them: and when they are entred once into the red ſea, the South or Southweſt. Now will we return to our purpoſed diſcourſe

So as it appeareth that every daies journey was about 32 miles.

as concerning Carmania. The coast whereof after the reckoning of *Nicearchus* may take in circuit 12050 miles. From the first marches thereof to the river Sabis is counted 100 miles. From whence all the way as farre as to the river Andaius, the countrey is rich and plenteous, for in it are vineyards and corne fields, well husbanded. This whole tract is called Amuzia. The principal towns of Carmania be Zetis and Alexandria. Vpon the marches of this realme, the sea breaketh into the land in two armes: which our countreymen are wont to call the red sea, and the Greekes Erythræum, of a king named *Erythras:* or (as some thinke) because the sea by reason of the reflection and beating of the Sunne beames, seemeth of a reddish colour. There be that suppose that this redness is occasioned of the sand and ground which is red: and others againe, that the very water is of the owne nature so coloured.

Chap. xxiiii.

The Persian and Arabian gulfes.

This red sea is divided into two armes: that from the East is named the Persian gulfe, & beareth in compasse 2500 miles, by the computation of *Eratosthenes*. Overagainst this gulfe in Arabia, which lieth in length 1200 miles. On the other side another arme there is of it called the Arabian gulfe, which runneth into the Ocean, called Azanius. The mouth of the Persian gulfe where it maketh entrance, is five miles over, and some have made it but foure. From which to the furthest point thereof, take a direct and streight measure by a line, and for certaine it is knowne that it containeth 1125 miles: and is fashioned like for all the world to a mans head. *Onesicritus* and *Nearchus* have written, That from the river Indus to the Persian gulfe, & so from thence to Babylon by the meeres and fennes of the river Euphrates, it is 2500 miles. In an angle of Carmania inhabit the Chelonophagi, *i.* such as feed upon the flesh of Tortoises, and the shels of them serve for rouses to cover their cottages. They inhabite all that coast along the river Arbis, even to the very cape: rough they are, hairie all their bodie over but their heads, and weare no other garment but fish skinnes.

Chap. xxv.

The Iland Cassandrus: and the kingdomes under the Parthians.

When you are passed this tract of the Chelonophagi, directly toward India, there lieth fiftie miles within the sea, the Iland Cassandrus, by report all desert and not inhabited: and neere unto it, with a little arme of the sea betweene, another Iland called Stois; wherein pearles are good chaffer, and yeeld gainefull trafficke. But to returne again to Carmania, when you are beyond the utmost cape therof, you enter presently upon the Armozei, who joine upon the Carmanians. But some say, that the Arbij are between both: and that their coasts may containe in the whole 402 miles. There are to bee seene the port or haven of the Macedonians, & the alters or columnes which *Alexander* erected upon the very promontorie & utmost cape. Where also be the rivers Saganos, Daras, and Salsos. Beyond which is the cape Themisceas, and the Iland Aphrodisias well peopled. Then beginneth the realme of Persis, which extendeth to the river Oroatus, that devideth it from Elymais. Overagainst the coasts of Persis, these Ilands bee discovered, Philos, Cassandra, and Aratia, with an exceeding high mountaine in it: and this Iland is held consecrated unto *Neptune*. The very kingdome of Persis Westward hath the coasts lying out in length 450 miles. The people are rich, and given to roiall and superfluous expense in all things: and long since it is, that they are become subject unto the Parthians, and carie their name. And seeing that we are come to mention them, we will breefely now speake of their Empire and dominion. The Parthians have in all 18 realmes under them: for so they tearmed all their provinces, as they lie devided about the two seas, as we have before said: namely the red sea Southward, and the Hircane sea, toward the North. Of which, eleven that lie above in the countrey, and are called the higher provinces, they take their beginning at the confines & marches of Armenia, and the coasts of the Caspians of the one side: and reach to the Scythians, whom they confront of the other side, with whom they converse and keepe companie together as equals. The other seven are called the base or lower Realmes. As for the Parthians, their land was alwaies counted to lie at the foot and descent of those mountaines, whereof we have so often spoken,

A ſpoken, which doe environ and encloſe all thoſe nations. It confineth Eaſtward upon the Arij; and Southward, upon Carmania and the Arians: on the Weſt ſide it butteth upon the Pratites and Modes: and on the North, boundeth upon the realm of Hircania: compaſſed round about with deſerts and mountaines. The utmoſt nations of the Parthians before yee come to thoſe deſerts be called Nomades: and their cheefe townes ſeated toward the Weſt, are Iſlaris and Calliope, whereof wee have written before: but toward the Northeaſt, Europum; and Southeaſt, Mania. In the heart and midland ſtandeth the citie Hecatompylos, as alſo Arſacia. And there likewiſe the noble region of Nyſæa in Parthyerum: together with the famous citie Alexandropolis; bearing the name of *Alexander* the firſt founder.

B

Chap. xxvi.

Of *Media, Meſopotamia, Babylon, and Seleucia.*

REquiſite now it is and needful in this place to deſcribe the poſiture and ſituation of the Medians kingdome, and to diſcover all thoſe countries round about, as farre as to the Perſian ſea, to the end that the deſcription of other regions hereafter to bee mentioned, may the better bee underſtood. Wherein this firſt and formoſt is to bee obſerved, that the kingdome of Media on the one ſide confronteth both Perſis and Perſia, and caſting forth a crooked and winding horne as it were toward the Weſt, ſeemeth to encloſe within that compaſſe both the ſaid realmes. Nevertheleſſe, on the Eaſt ſide it confineth upon the Parthians and Caſpians: on the
C South, Sittacene, Suſiane, and Perſis: Weſtward, Adiabene: and Northward, Armenia. As for the Perſians, they alwaies confronted the red ſea, wherupon it was called the Perſian gulfe. Howbeit, the maritime coaſt thereof is called Cyropolis, and that part which confineth upon Media, Elymais. In this realme there is a ſtrong fort called Megala, in the aſcent of a ſteepe high hill, ſo direct upright, that a man muſt mount up to it by ſteps and degrees, and otherwiſe the paſſage is very ſtreight and narrow. And this way leadeth to Perſepolis the head citie of the whole kingdome, which *Alexander* the great cauſed to bee raſed. Moreover, in the frontiers of this Realme, ſtandeth the citie Laodicea, built by king *Antiochus*. From whence as you turn into the Eaſt, the ſtrong fort or caſtle Paſſagarda is ſeated, which the ſages or wiſe men of Perſia called Magi, doe hold, and therein is the tombe of *Cyrus*. Alſo the citie Ecbatana belonging to theſe ſages, which
D *Darius* the king cauſed to be tranſlated to the mountaines. Betweene the Parthians and the Arians lie out in length the Parotacenes. Theſe nations and the river Euphrates ſerve to limit and bound the ſeven lower realmes beforenamed. Now are we to diſcourſe of the parts remaining behind of Meſopotamia; ſetting aſide one point and corner thereof, as alſo the nations of Arabia, wherof we ſpake in the former booke. This Meſopotamia was in times paſt, belonging wholly to the Aſſyrians, diſperſed into petie villages and burgades, all ſave Babylon and Ninus. The Macedonians were the firſt, that after it came under their hands reduced it into great citties, for the goodneſſe and plentie of their ſoile and territorie. For now beſides the abovenamed townes, it hath in it, Seleucia, Laodicea, and Artemita: likewiſe within the quarters of the Arabians named Aroei and Mardani, Antiochea: and that which being founded by *Nicanor*, governour of
E Meſopotamia, is called Arabis. Vpon theſe joine the Arabians, but well within the countrey are the Eldamarij. And above them is the cittie Bura, ſituate upon the river Pelloconta: beyond which are the Salmanes and Maſeans, Arabians. Then there joine to the Gordiæans thoſe who are called Aloni, by whom the river Zerbis paſſeth, & ſo diſcharged into Tigris. Neere unto them are the Azones & Silices, mountainers, together with the Orentians: upon whom confronteth the citie Gaugamela on the Weſt ſide. Moreover, there is Sue among the rocks: above which are the Sylici & Claſſitæ, through whom Lycus the river runneth out of Armenia. Alſo, toward the Southeaſt, Abſitris, and the town Azochis. Anon you come down into the plains & champion countrey, where you meet with theſe towns, Dioſpage, Poſytelia, Stratonicea, and Anthemus. As for the citie Nicephorium, as we have once alreadie ſaid, it is ſeated neere to the river Euphrates,
F where *Alexander* the great cauſed it to bee founded, for the pleaſant ſeat of the place, and the commoditie of the countrey there adjoining. Of the citie Apamia we have before ſpoken in the deſcription of Zeugma: from which, they that goe Eaſtward meet with a ſtrong fortified towne, in old time carying a pourpriſe and compaſſe of 65 ſtadia, called the roiall pallace of their great dukes and potentates, named Satrapæ, unto which from all quarters men reſorted to pay their

impoſts, cuſtomes, and tributes: but now it is come to be but a fort and caſtle of defence. But there continue ſtill in their entier and as flouriſhing ſtate as ever they were, the citie Hebata and Oruros, unto which by the fortunate conduct of *Pompey* the Great, the limits and bounds of the Romane Empire were extended; and it is from Zeugma 250 miles. Some writers make report, that the river Euphrates was divided by a governour of Meſopotamia, and one arme thereof brought to Gobaris, even in that place where wee ſaid it parted in twaine: which was done for feare leaſt one day or other the river with his violent ſtreame ſhould endaunger the citie of Babylon. They affirme moreover, that the Aſſyrians generally called it * Armalchar, which ſignifieth a royall river. Vpon this new arme of the river aforeſaid, there ſtood ſometime Agrani, one of the greateſt townes of that region, which the Perſians cauſed to be utterly raſed and deſtroyed. G H

* Or rather, Nahal Nalca, *i.* the kings river.

As for the cittie of Babylon, the capitall citie of all the Chaldæan nations, for a long time carried a great name over all the world: in regard whereof, all the other parts of Meſopotamia and Aſſyria was named Babylonia: it contained within the walls 60 miles. The walles were 200 foot in height, and 50 thicke; reckoning to everie foot 3 fingers breadth more than our ordinarie meaſure. Through the mids of this goodly great citie, paſſeth the river Euphrates: a wonderfull peece of worke, if a man conſider both the one and the other. As yet to this day the temple of *Iupiter Belus* there ſtandeth entire. This prince was the firſt inventer of Aſtronomie. It is now growne into decay and lyeth waſt and unpeopled, by reaſon that Seleucia the cittie ſtandeth ſo neere it, which hath drawne from it all reſort and traffick: and was for that purpoſe built by *Nicator* within 40 myles of it, in the verie confluent where the new arme of Euphrates is brought by a ditch to meet with Tigris: notwithſtanding, ſurnamed it is Babylonia, a free ſtate at this day and ſubject to no perſon: howbeit they live after the lawes and manners of the Macedonians. And by report, in this citie there are 600000 cittizens. As for the walls thereof, by report, they do reſemble an Eagle ſpreading her wings: and for the ſoile, there is not a territorie in all the Eaſt parts comparable to it in fertilitie. The Parthians in deſpight againe of this citie, and for to doe the like by it, as ſometime was done to the old Babylon, built the citie Cteſiphon within three miles of it, in the tract called Chalonitis, even to diſpeople and impoveriſh it: which now at this preſent is the head citie of the kingdome. But when they could doe little or no good thereby to diſcredit the ſaid new Babylon, of late daies *Vologeſus* their king founded another citie hard by, called Vologeſo Certa. Moreover, other cities there are beſides in Meſopotamia, namely Hypparenum, a citie likewiſe of the Chaldæans, and ennobled for their learning as well as Babylon: ſituate upon the river Narragon, which gave the name unto that citie. Howbeit the Perſians cauſed this Hypparenum to be diſmantled, and the walls thereof to be demoliſhed. There be alſo in this tract, the Orchenes toward the South: from whence is come a third ſort of the Chaldæans, called Orcheni. Beeing paſt this region, you meet with the Notites, Orthophants, and Græciophants. *Nearchus* and *Oneſicratus*, who regiſtred the voyage of *Alexander* the Great into the Indians, report, That from the Perſian ſea to the citie of Babylon by the river Euphrates, is 412 miles. But the later and moderne writers, doe count from Seleucia to the Perſian gulfe, 490 miles. K. *Iuba* writeth, that from Babylon to Charax, is 175 miles. Some affirme moreover, that beyond Babylon, the river Euphrates maintaineth his entire courſe and keepeth one channell 87 miles, before that hee is divided into ſeverall braunches here and there, for to water the countrey: and that he holdeth on his courſe from his head to the ſea, for the ſpace of 1200 miles. This varietie of Authors as touching the meaſure, is the cauſe that a man may not ſo well reſolve and conclude thereof, conſidering that even the very Perſians agree not about the dimenſions of their Scœnes and Paraſanges, but have divers meaſures of them. Whereas the river Euphrates giveth over his owne channell, (which for the breadth thereof is a ſufficient munition to it ſelfe) and beginneth to part into divers braunches, which it doth about the marches and confines of Charax, in all that tract neere adjoyning, great daunger there is of the Attalæ, a theeviſh nation of the Arabians, who preſently ſet upon all paſſengers comming and going to and fro. When ye are paſt this infamous and ſuſpected region, you ſhall enter into the countrey of the Schenites. As for the Arabians called Nomades, they occupie all the coaſts of the river Euphrates, as farre as to the deſerts of Syria: from which place we ſaid that he turned and tooke his way into the South, abandoning the deſerts of Palmyrene. To conclude, from the beginning and head of Meſopotamia, it is counted to Seleucia, if you paſſe upon the river Euphrates, 1125 miles: I K L M

A miles: and from the red sea, if you goe by the river Tigris, 320 miles: from Zeugma 527 miles: and to Zeugma from Seleucia in Syria upon the coast of our sea, is reckned 175 miles. And this is the very true and just latitude there, of the firme land betweene the two seas, to wit, the Persian gulfe, and the Syrian sea. As for the kingdome of Parthia, it may containe 944 miles. Finally, there is yet another towne of Mesopotamia upon the banke of Tigris, neere the place where the rivers meet in one, which they call Digba.

Chap. xxvii.

The river Tigris.

B MEet also it is and convenient, to say somewhat of the river Tigris. It beginneth in the land of Armenia the greater, issuing out of a great source, and evident to be seene in the verie plaine: the place beareth the name of Elongosine. The river it selfe so long as it runneth slow and softly, is named Diglito; but when it beginneth once to carrie a more forcible streame, it is called Tigris, for the swiftnesse thereof; which in the Medians language, betokeneth a shaft. It runneth into the lake Arethusa, which beareth up aflote all that is cast into it, and will suffer nothing to sinke: and the vapours that arise out thereof, carrie the sent of Nitre. In this lake there is but one kind of fish, and that entreth not into the channell of Tigris as it passeth through, no more than any fishes swim out of Tigris into the water of the lake. In his course and color both, he is unlike, and as he goeth may be discerned from the other: and when he is once past the lake
C and encountreth the great mountaine Taurus, he looseth himselfe in a certaine cave and hole in the ground, and so runneth under the hill, untill on the other side thereof hee breaketh forth againe and appeareth in his likenesse, in a place which is called Zoroanda. That it is the same river, it is evident by this, that he carrieth through with him and sheweth in Zoroanda, whatsoever was cast into him before he hid himselfe in the cave beforesaid. After this second spring and rising of his, he entreth into another lake and runneth through it likewise, named Thospites, and once againe taketh his way under the earth through certaine blind gutters, and 25 miles beyond he putteth forth his head about Nymphæum: *Claudius Cæsar* reporteth, that in the country Arrhene, the river Tigris runneth so neere unto the river Arsania, that when they both swell and their waters are out, they joyne both their streames together, yet so, as their water is not inter-
D mingled: for Arsanias being the lighter of the twaine, swimmeth and floteth over the other, for the space well-neer of 4 miles: but soone after, they part asunder, and Arsania turneth his course toward the river Euphrates, into which he entreth. But Tigris receiving into him certain goodly great rivers out of Armenia, to wit, Parthenis, Agnice, and Pharion, and so dividing the Arabians and Troeans from the Adiabenes, and by this meanes making as it were an Iland Mesopotamia beforesaid, after he hath passed by and viewed the mountaines of the Gordiæans neere unto Apamia a town of Mesene on this side Seleucia surnamed Babylonia 125 miles: dividing himselfe in two armes or channels, with the one he runneth Southward to Seleucia, watering as he goeth the countrey of Messene; and with the other windeth into the North: he goeth on the backe side of the said Mesene, and cutteth through the plaines of the Cauchians. Now when
E these two braunches are reunited againe, the whole is called Pasitigris. After this, he taketh into him out of Media, the great river Coaspes: and so passing betweene Seleucia and Ctesiphon, as we have said, he falleth into the meeres and lakes of Chaldæa, which he furnisheth and replenisheth with water, for the compasse of threescore and ten miles: which done, he issueth forth againe, gushing out with a mightie great and large streame, and running along the towne Charax, on the right hand thereof, hee dischargeth himselfe into the Persian sea, carrying there a mouth ten miles over. Betweene the mouthes of these two rivers, Tigris and Euphrates, where they fall into the sea, were counted in old time 25 miles, or as some would have it, but seven: and yet both of them were navigable, and bare right great ships. But the Orcheniens & other neighbour inhabitants, long since turned the course of Euphrates aside to serve their owne turnes in
F watering their fields, and stopped the ordinarie passage thereof, insomuch as they forced him to runne into Tigris, and not otherwise than in his channell to fall into the sea. The next country bordering upon Tigris, is called Parapotamia: in the marches therof is the citie Mesene, whereof we have spoken. The chiefe towne thereof is Dibitach: from thence you enter presently into the region Chalonitis joyning hard upon Ctesiphon, a rich countrey, beautified not onely with

rowes of date-trees, but also with olive, apple, and peare trees, and generally with all sorts of fruit. G
Vnto this countrey extendeth the mountaine Zagrus, comming along from out of Armenia, betweene the Medes and Adiabenes, above Parætacene and the realme of Persis. Chalonitis is from Persis 480 miles distant. And some write, that going the streight, direct, and neerest way, it is so much and no more from the Caspian sea to Assyria. Betweene these countries and Mesene lyeth Sittacene, the same it is that Arbelitis and Palæstine. The townes of importance therin, are Sittace held by the Græcians situate toward the East, and Sabata: but on the West side, Antiochia, seated betweene the two rivers, Tigris and Tornadotus. In like manner Apamia, which *Antiochus* the king so called after his mothers name. This citie is environed as it were with the river Tigris, and divided with the river Archous that passeth through it. Somewhat lower than these countries, lyeth the region Susiane, wherein stood the auncient royall pallace and H
seat towne of the Persian KK. Susa, founded by *Darius* sonne of *Hystaspes*: and from Selencia Babylonia, it is 450 miles distant: and as much from Ecbatana in Media, taking the way along the mountaine Charbanus. Vpon that braunch of the river Tigris that taketh his course Northward, standeth the towne Babytace: and from Susa it is 135 miles. The people of this countrey are the onely men in the world that hate gold: and in very truth get it they doe, and when they have it, they burie it sure enough within the ground, that it might serve for no use. Vpon the Susianes Eastward, joine the Cossæans, Brigands, and theeves generally all. Likewise the Mizæans, a free state and subject to no government, having under them 40 nations, all wild and living as they list. Above these quarters, you enter into the countreys of the Parthusians, Mardians, Saites, and Hyans, who confine upon high Persia, called Elemais, which joyneth to the maritime I
coasts of Persis, as is aboveseid. The citie of Susa is from the Persian sea 250 miles. On that side whereas the Armada of *Alexander* the Great came up the great river Pasitigris to Susa, there standeth a village upon the lake Chaldais, named Aphle: from which to Susa, is 65 miles and an halfe by water. The next that border upon the Susianes Eastward, are the Cossæans: and above the Cossæi Northward, lyeth Mesobatene under the hill Cambalidus, which is a braunch and dependant of the mountaine Caucasus: and from thence is the most easie and readie passage into the region Bactriana. The river Eulæus maketh a partition betweene the high countrey of Persis called Elimais, and Susiane. This river issueth out of the Medians countrey, and in the mids of his course looseth himselfe in the ground: but being once up again, he runneth through Mesobatene, and environeth the fort and castle of Susa, with the temple of *Diana*, which is had K
in great reverence and honour above all other temples in those parts: yea and the very river it selfe is in much request, and the water thereof ceremoniously regarded: in such wise, as the kings drinke of no other; and therefore they fetch it a great way into the countrey. And it receiveth into it the river Hedypnus, which commeth along the priviledged place whereinto the Persians use to retire for sanctuarie, and one more out of the Susianes countrey. A town there is planted neer unto it, called Magoa, 15 miles from Charax. Yet some there be, that would have this town to stand in the utmost marches of Susiana, even close unto the deserts and mountaines. Beneath the river Eubæus lieth Elimais, joyning unto Persis in the very maritime coast, 240 miles it is from the river Oroates to Charax. The townes in it, be Seleucia and Sosirate, both situate upon the hanging of the hill Casyrus. The flat coast and levell thereof which lieth before it, is as we L
have said before, no lesse daungerous and unaccessible than the Syrts, for quavemires, by reason of the great store of mud and sand together, which the rivers Brixia and Ortacea bring downe with them. Over and besides, the countrey Elimais is so fennie and standeth with water so wet, that there is no way through it to Persis, but a man must fetch a great circuit & compasse about it to come thereto. Moreover, much haunted it is and annoyed with serpents, which breed and come downe in those rivers: and as troublesome as the passage is all the countrey over, yet that part yeeldeth the worst advenues and is least frequented, which they call Characene, of the town Charax, which limiteth the kingdomes of Arabia: whereof we will speake anon more at large, after we have set downe the opinion of *M. Agrippa*, which hee hath delivered as touching these quarters: for he hath written, that Media, Parthia, and Persis, are bound on the East side with M
the river Indus; on the West, with Tigris; on the North part, with the two mountaines, Taurus and Caucasus: and on the South coast, with the red sea: also that they extend in length 1320 miles, and in breadth 840. Moreover, that Mesopotamia by it selfe alone, is enclosed Eastward with the river Tigris, and Westward with Euphrates; having on the North side the mountaine

Taurus,

A Taurus, and on the South the Perſian ſea: lying out in length 800 miles, and in breadth 360. Now to returne unto Charax, the inmoſt towne within the Perſian gulfe, from which Arabia called Eudæmon; *i.* happie, begins and runneth forth in length; ſituate it is upon a mount artificially reared by mans hands betweene the confluents of Tygris on the right hand, and Eulæus on the left: and yet notwithſtanding it carrieth a pourpriſe or precinct of three miles compaſſe. Founded firſt it was by *Alexander* the great: who having drawne Coloners to inhabite it out of the kings citie Durine (which then was ruinate) and leaving there behind him thoſe ſouldiours which were not fit for ſervice, nor able to follow in the march, ordained, that this towne ſhould be called Alexandria: and the territorie about it Pellæum, of that town where himſelfe was born: and withall appointed, that it ſhould be peopled onely with Macedonians. But this towne of his
B by him founded, was overthrown and deſtroied by the two rivers aforeſaid. Afterwards king *Antiochus* the fift rebuilt it againe, and named it of himſelfe, Antiochia. But when it was decaied a ſecond time by theſe rivers, *Spaſines* ſonne of *Sogdonacus*, who held Arabia, bordering neere by as an abſolute king, and not (as *Iuba* reporteth) as a duke or governour under *Alexander*, raiſed great wharfes, and oppoſed mightie dammes and cauſeies againſt thoſe rivers, and ſo reedified the towne a third time. Which done, he called it after his owne name Charax of Spaſines: and verily he fortified thus the ſite and foundation thereof, three miles in length, and little leſſe in breadth. At the beginning it ſtood upon the ſea coaſt, and from the water ſide not above ten ſtadia, and even from thence it hath certaine falſe baſtard galleries: but by the report of *Iuba* in his time, 50 miles. Howbeit, at this day both the Arabian Embaſſadors, & alſo our merchants that
C come from thence, ſay it is from the ſea ſhore 125 miles. In ſuch ſort, that it cannot be found in any place of the world again, where the earth hath gained more, nor in ſo ſhort a time, of the water, by reaſon of the ſtore of mud brought down with rivers. And the more marvell it is, that conſidering the ſea floweth, and the tide riſeth farre beyond this towne, yet thoſe made grounds are not beaten backe, and carried away againe. In this very towne I am not ignorant, that *Dionyſius* the lateſt of our moderne Geographers, was borne: whom *Auguſtus* the Emperor ſent of purpoſe beforehand into the Eaſt countries to diſcover thoſe parts, and record faithfully in writing whatſoever hee there found, for the better advertiſement of his elder ſon, who was upon his voiage and expedition of Armenia, to warre againſt the Parthians and Arabians. Neither have I forgotten, that in my firſt entrance into this worke in hand, I made ſome proteſtation to follow
D thoſe who had written of their owne countries, as men lightly moſt diligent and of beſt intelligences in that behalfe, Howbeit, in this place I chuſe rather to follow our martiall captaines that have warred there, and report me alſo to king *Iuba*, who hath written certaine bookes to *C. Cæſar Caligula*, as touching the occurrences in the Arabian voiage.

Chap. xxviii.

Arabia, Nomades, Nabatæi, and Omani: Tylos and Ogyris two Iſlands.

ARabia commeth behind no countrey in the world, for largeneſſe and greatneſſe eſpecially, reaching out in length a mightie way. For it beginneth at the fall and deſcent of the
E mountaine Amanus overagainſt Cilicia and Comagene, as we have beforeſaid: where it is peopled with many nations brought from thence thither by *Tigranes* the great, to inhabit that quarter, and in old time deſcended naturally, and reached as farre as to our ſea and the Ægyptian coaſt, as we have ſhewed: yea, and extendeth into the midland parts of Syria unto the mountain Libanus, where the hils reach up to the very clouds: upon which bound the Ramiſians, then the Taraneans, and after them the Patami. As for Arabia it ſelfe, being like a demie Iſland, runneth out betweene two ſeas, the red and the Perſian, by a certaine artificiall workmanſhip of Nature, framed according to Italie in likeneſſe of forme and bigneſſe: yea, and lieth along the ſea coaſts in manner of Italie. And more than that, it regardeth the ſame quarter and line of heaven, without any difference at all. This tract thereof, for the rich ſeat it hath, is named *Fœlix, i.* Happie. The
F nations therein dwelling, from our ſea coaſts unto the deſerts of Palmyreum, we have treated of alreadie. Therefore overpaſſing them, wee will diſcourſe of the reſt forward. Now then, the Nomades and thoſe robbers that ſo lie upon the Chaldæans and trouble them, the people called Scenitæ, as we have beforeſaid, doe confine upon. And even they alſo make no certaine place of abode and habitation, but are called Scenitæ, of their tabernacles and booths which they make

of

of haire cloths, and encampe under them when and where they liſt. Being paſt them, you meet G
with the Nabatæans in the vale, who inhabite a towne there named Petra, little leſſe than two miles large; environned with ſteepe mountaines round about, which cut off all the advenues to it: and beſides, having a river running through the middeſt thereof. Diſtant it is from Gaza (a towne ſituate upon our coaſt in Syria) 600 miles: and from the Perſian gulfe 122. And here at this towne meet both the port high waies, to wit, the one which paſſengers travell to Palmyra in Syria, and the other, wherein they goe from Gaza. Beyond Petra and the vale thereof, you enter into the Omanes countrey: which reached ſometime as farre as to Carax, and inhabited two famous townes built by queene *Semiramis*, namely, Abeſanius, and Soractia. But now all is but a wilderneſſe. Then come you to a towne named Forath, ſituate upon the river Paſitigris, and ſubject to the king of the Caracins or Zarazins: to which towne there is much reſort from Petra, as H
to a ſhier towne: and from thence to Charax, they may paſſe with the tide when the water ebbeth, for the ſpace of twelve miles. But they that come by water out of the Parthian kingdome, meet with a village called Teredon, lower than the place where Euphrates and Tigris meet together in one. Where the Chaldæans inhabite the left hand coaſt of the river, and the Nomades called Scenitæ, the right. Some writers affirme, that as yee ſaile and row upon the river Tigris, ye paſſe by two other townes diſtant farre aſunder: the one called Barbatia in times paſt, and afterwards Thumata, which our merchants that trafficke in thoſe parts, avouch to be tenne daies ſaile from Petra, and is under the king of the Characenes: and the other named Apamia, ſituate in the very place where Euphrates the river ſo ſwelleth over his bankes, that he joineth with Tigris in one confluent. And therfore the Apamians, at what time as the Parthians are about to make inrodes I
and invade their territorie, ſet open the ſluces, and breake up the wharfes and bankes that keepe theſe two rivers aſunder, and ſo impeach their enterpriſe by the overflow and innundation of the waters. Now being paſt Charax, we will diſcourſe of the other coaſts of Arabia, and namely that which firſt was diſcovered and declared by *Epiphanes*. And to begin with the place where ſometime the mouth of Euphrates was. When you are once paſt it, you meet with a river of ſalt brackiſh water, and the Promontorie or cape Chaldonum: where the ſea is more like a deepe pit or whirlepoole than a ſea, for 50 miles. Vpon this coaſt you find the river Achana, and beyond it, deſerts for 100 miles, untill you come to the Iſland Ichara. Then ſheweth it ſelfe the gulfe or arme of the ſea named Capeus, upon which inhabite the Gaulopes and Chateni. Beyond them another creeke called Gerraicus, and the towne Gerræ upon it, five miles large: and fortified with turrets made of great huge ſtones ſquared, of ſalt minerall. Fiftie miles from the ſea ſide K
is the region Attene: and overagainſt it the Iſland Tylos, as many miles from the ſhore, with a towne in it, bearing the name of the Iſland, much frequented by merchants for the plentie of pearles that there bee ſold: and not farre from it there is another ſomewhat leſſe, not paſt twelve miles from the cape of the foreſaid Tylos. Beyond theſe there are diſcovered by report certaine great Iſlands, but as yet they have not ben landed upon by our merchants. As for this laſt Iſland, it containeth as they ſay 112 miles and an halfe in circuit, and is farre from Perſis; but no acceſſe there is unto it, but onely by one narrow gutter or channell. Then ſheweth it ſelfe the Iſland Aſgilia. And in theſe parts likewiſe are other nations, namely, the Nocheti, Zurachi, Borgodi, Cataræi, and Nomades: and withall the river Cynos. Beyond that, as king *Iuba* ſaith, there is no L
more diſcovered upon this ſea of that ſide, by reaſon of the daungerous rockes therein. And I marvell much that hee hath made no mention at all of the towne Batraſabe in the Omanians countrey, ne yet of Omana, which the auncient Geographers have held to be an haven of great importance in the kingdome of Carmania. *Item*, hee ſaith not a word of Omne and Athanæ, which our merchants report to bee at this day two famous mart townes, much frequented by thoſe that trafficke from the Perſian gulfe. Beyond the river Caius, as king *Iuba* writeth, there is an hill, which ſeemeth all ſcorched and burnt. Paſt which, you enter into the countrey of the Epimaranites: and anone after into the region of the Ichthyophagi: and paſt them there is diſcovered a deſert Iſland, and the Bathymians countrey. And ſo forward, the mountaines Eblitæi are diſcovered, and the Iſland Omœnus, the haven Machorbæ, the Iſlands Etaxalos, Onchobrice, M
and the people called Chadæi. Many other Iſlands alſo of no account, and nameleſſe: but of importance, Iſura, Rhinnea; and one other very neere thereto, wherein are ſtanding certaine columnes or pillers of ſtone engraven with unknowne characters and letters. A little beyond, the port-towne Gobœa, and the deſert unpeopled Iſlands Bragæ. The nation of the Thaludæans:

the

the region Dabanegoris: the mountaine Orſa with an haven under it: the gulfe or arme of the
ſea called Duatus, with many Iſlands therein. Alſo the mountaine Tricoryphus: the countrey
Cardalena, the Iſlands Solanidæ and Capina. Soon after you fall upon other Iſlands of the Ich-
thyophagi: and after them the people called Glarians. The ſtrond called Hammæum, wherein
are golden mines. The region Canauna. The people Apitami and Gaſani. The Iſland Deuadæ,
with the fountaine Goralus. Then come you to the Garphets countrey: the Iſlands Aleu & Am-
namethu. Beyond which are the people called Darræ, the Iſland Chelonitis, and many other of
the Ichthyophagi. The Iſle Eodanda which lieth deſert, and Baſage, beſides many other that be-
long to the Sabæans. For rivers, you have Thamar and Amnon, and in them the Iſlands Dolicæ,
wherein bee the fountaines Daulotes and Dora. Iſlands beſides, to wit, Pteros, Labaris, Covoris
B and Sambracate, with a towne ſo named alſo in the firme land. On the South ſide many Iſlands
there be, but the greateſt of them all is Camari. Then have you the river Myſecros, the haven
Leupas, and the Sabæans called Scenitæ, for that they live under tabernacles and tents. More-
over, many other Iſlands. The cheefeſt mart or town of merchandiſe in thoſe parts is Acila, where
the merchants uſe to embarke for their voiage into India. Then followeth the region Amithoſ-
cutia, and Damnia. The Mizians, both the greater and the leſſe: the Drimutians and Macæ. A
Promontorie of theirs is overagainſt Carmania, & diſtant from it 50 miles. A wonderous thing
is reported to have been there done, and that is this: that *Numenus* lord deputie under king *An-*
tiochus, over Meſena, and generall of his armie, defeited the navie of the Perſians in ſea fight, and
the ſame day with the opportunitie of the tide returned to land again, and gave their horſemen
C an overthrow to it: whereupon, in memoriall of a two-fold victorie in one day atchieved, he ere-
cted two triumphant trophæes, the one in honour of *Iupiter*, and the other of *Neptune*. Far with-
in the deepe ſea there lieth another Iſland called Ogyris, diſtant from the continent 125 miles,
and containing in circuit 112, much renowmed for the ſepulchre of king *Erythra*, who there was
enterred. Another likewiſe there is of no leſſe account, called Dioſcoridu, lying in the ſea Aza-
nium, and is from Syagrum, the utmoſt point or cape of the maine, 280 miles. But to returne to
the Continent: there remaine yet not ſpoken of, the Antarides toward the South, as you turne to
the mountaines, which continue for ſeven daies journey over: then theſe nations, Larendanes,
Catabanes, and Gebanites: who have many townes, but the greateſt are Nagia and Tamna, with
65 churches or temples within it, whereby a man may know how great it is. From thence you
D come to a Promontorie: from which to the continent of the Troglodites it is 50 miles. And in
thoſe quarters remaine the Toanes, Acchitæ, Chatramotitæ, Tomabei, Antidalei, Lexianæ, A-
grei, Cerbani; and Sabæi, of all the Arabians for their ſtore of frank-incenſe moſt famous, as al-
ſo for the largeneſſe of their countrey, reaching from ſea to ſea. Their townes ſituate upon the
coaſt of the red ſea, are Marane, Marma, Cocolia and Sabatra. Within the firme land are theſe
townes, Naſcus, Cardava, Carnus, and Tomala, where the Sabæans keepe their faires and mar-
kets for to vent & ſell their commodities of incenſe, myrrhe, and ſuch drugs and ſpices. One part
of them are the Atramites, whoſe capitall citie Sobotale, hath within the walls thereof 60 tem-
ples. But the roiall citie and cheefe ſeat of the whole kingdome is Nariaba: ſituate upon a gulfe
or arme of the ſea that reacheth into the land 94 miles, full of Iſlands, beautified with ſweet odo-
E riferous trees. Vpon the Atramites within the maine land joine the Minæi: but the Elamites in-
habite the maritime coaſt, where there ſtandeth a cittie alſo called Elamitum. To them the Ca-
gulates lie cloſe: and their head towne is Siby, which the Greekes name Apate. Then come you
to the Arſicodani and Vadei, with a great towne: and the Baraſei: beyond whom is Lichemia,
and the Iſland Sygaros, into which no dogs will come willingly: and if any be put there, they will
never lin wandering about the ſhore untill they die. In the fartheſt part of the aboveſaid gulfe
are the Leanites, whereof the gulfe tooke the name Leanites. Their head citie and roiall ſeat is
Agra: but the cittie Leana, or as others would have it, Ælana, is ſituate upon the very gulfe.
And hereupon our writers have called that arme of the ſea Ælaniticum, others Ælenaticum;
Artemidorus, Aleniticum; and king *Iuba*, Læniticum. Arabia is reported to take in circuit
F from Charax to Leana, 4870 myles: but *Iuba* thinketh it ſomewhat leſſe than 4000. Wideſt
it is in the North parts betweene the townes Herous and Chrace. Now it remaineth that
wee ſpeake of other parts within the midland thereof. Vpon the Nabataei, the Thimaneans
doe border, after the deſcription of the old Geographers: but at this day, the Tavenes, Su-
ellenes, and Saracenes: their principall towne is Arra, wherein is the greateſt trafficke and

reſort

reſort of merchants. Moreover, the Hemnates and Analites, whoſe townes are Domada and Erage: alſo the Thamuſians, with their towne Badanatha: the Carreans, and their towne Chariati: the Achoali, and a citie of theirs Phoda. Furthermore, the Mihæi, deſcended as ſome thinke from *Minos* king of Crete: whoſe citie Charmæi hath 14 miles in compaſſe. Other towns likewiſe be there ſtanding afarre off, and namely, Mariaba, Baramalacum, a towne ywis of no meane account: likewiſe Carnon, and Ramei, who are thought to come from *Rhadamanthus* the brother of *Minos*. Over and beſides, the Homerites, with their towne Maſſala: the Hamirei, Gedranitæ, Anapræ, Iliſanitæ, Bochilitæ, Sammei, and Amathei; with theſe towns, Neſſa and Cenneſſeri. The Zamanenes, with theſe townes, Saiace, Scantate, and Bacaſmani: the towne Rhiphearma, which in the Arabian tongue ſignifieth Barley: alſo the Antei, Rapi, Gyrei, and Marhatæi. The Helmadenes, with the towne Ebode. The Agarturi in the mountaines, having a towne 20 miles about, wherein is a fountaine called Emiſchabales, that is as much to ſay, as The camels town. Ampelone, a colonie of the Mileſians: the town Actrida: and the people Calingij, whoſe towne is named Mariaba, as much to ſay as, Lords of all. Townes moreover, Pallon and Murannimal, neere unto a river, by which men thinke that Euphrates ſpringeth and breaketh forth above ground. Other nations beſides, namely, Agrei and Ammonij: with a towne, Athenæ: and the Caurarani, which ſignifieth, Moſt rich in droves of cattaile. Then the Caranites, Cæſanes, and Choanes. There were ſometime alſo certaine townes in Arabia, held by Greekes, and namely, Arethuſa, Lariſſa, and Chalcis, which all in the end came to ruine and were deſtroyed in divers and ſundrie warres. The only man among the Romans untill this day that warred in thoſe parts, was *Ælius Gallus* a knight of Rome. As for *Caius Cæſar* the ſonne of *Auguſtus* the Emperour, he did but looke onely into Arabia, and no more: but *Gallus* waſted townes that were not once named by Authors that wrate before, namely, Egra, Anneſtum, Eliſa, Maguſum, Tamuracum, Laberia, and the above-named Marieba, which was in circuit ſixe miles about: likewiſe Caripeta, the fartheſt that he went unto. As for all other matters, he made report unto the Senate of Rome, according as he had found and diſcovered in thoſe parts, to wit, that the Nomades live of milke and veniſon: the reſt of the Arabians preſſe wine, like as the Indians doe, out of dates; and oyle of Seſama, a kind of graine or pulſe in thoſe countries. That the Homerites country of all others is moſt populous and repleniſhed with people: the Minæans have plenteous and fruitfull fields, full of date trees and goodly hortyards ſtored with all ſorts of fruit; but their principall riches lyeth in cattaile. The Cembanes and Arians are good warriours and martiall men, but the Chatramotites that way excell all the reſt. The Caræans have the largeſt territories and moſt fertile fields for corne. As for the Sabæans, their wealth ſtandeth moſt upon their woods and trees, that bring forth the ſweet gummes of frankincenſe and myrrhe: alſo in mines of gold: having water at commaundement to refreſh their lands, and plentie beſides of honey and waxe. As concerning the ſweet odours and ſpices that come from thence, wee will ſpeake thereof in a ſeverall booke by it ſelfe. The Arabians weare mitres or turbants ordinarily upon their heads, or elſe go with their haire long and never cut it: as for their beards, them they ſhave, ſave only on their upper lip, which they let grow ſtill: and yet ſome there be of them that ſuffer their beards to grow long and never cut them. But this one thing I marveile much at, that being ſuch an infinite number of nations as they be, the one halfe of them live by robberie and theeving, howſoever the other live by trafficke and merchandiſe. Take them generally, they be exceeding rich; for with them the Romans and Parthians leave exceeding ſummes of gold and ſilver, for the commodities out of their woods and ſeas which they ſell unto them; but they themſelves buy nothing of them againe. Now will wee ſpeake of the other coaſt oppoſite unto Arabia. *Timoſthenes* hath ſet downe, that the whole gulfe or arme of the ſea called Red, was from one end to the other foure daies ſailing: and from ſide to ſide, two dayes: that the ſtreights of the firth were ſeven miles over. But *Eratoſthenes* ſaith, that taking the meaſure at the very mouth, it is every way 1300 miles.

Chap. xxix.

The gulfe of the Red Sea: likewiſe of the Trogloditicke and Æthiopian Seas.

Artemidorus avoucheth, that the Red Sea toward Arabia ſide, is 1400 miles and fiftie: but on the coaſt of the Troglodites 1182, untill you come to the citie Ptolemais. Moſt Geographers have ſet downe the breadth thereof to be 462 miles: and that the mouth of it,

where

A where it openeth wide, full againſt ſun-riſing in winter, [*i.* Southweſt] ſome ſay, is 7 miles broad; and others 12. As for the poſiture and ſituation thereof, thus it lyeth: Beyond the braunch or arme thereof called Ælaniticus, there is another creeke which the Arabians call Æant, upon which ſtandeth the towne Heroon. In old time there was a citie called Cambiſu, betweene the Nelians and Marchandians, into which the ſicke and feeble ſoldiers of our armie were conveyed, as to a place of retreat and repoſe. Beyond which, you enter into the land of Tyra: and there is the port Daneon to be ſeene, from which *Seſoſtris* a king of Ægypt, was the firſt that imagined and deviſed to draw one arme of it with a channell navigable, into Nilus, in that part where it runneth to the place called Delta, and that for 62 miles ſpace, which is betweene the ſaid river and the red ſea. This enterpriſe of his was followed by *Darius* king of the Perſians: yea and by
B *Ptolomæus* king of Ægypt, ſecond of that name, who made a channell 100 foot over, and thirtie deepe, for 37 miles in length and an halfe, even to the bitter fountaines. But this deſſigne was interrupted and the ditch went no farther, for fear of a general deluge and inundation: for found it was, that the red ſea lay above the land of Ægypt three cubits. Some alledge not that to be the cauſe, but this, namely, That if the ſea were let into Nilus, the ſweet water thereof (whereof they drinke onely and of none elſe) ſhould be corrupted thereby and marred. Yet nevertheleſſe, although this worke went not forward, the way is well beaten all the countrey over betweene the Red ſea and the Ægyptian, for trafficke: and three ſeverall ordinarie waies there are betweene: the one from Peluſium over the ſands; where, unles there be reeds ſet up pitched in the ground to give guidance and direction, there would no path be found, for ever and anon the wind blow-
C eth the ſand over the tracts of mens feet and covereth all. A ſecond beginneth two miles beyond the mountaine Caſius, which after 60 miles commeth into the former Peluſiacke way. (Vpon this great rode way, the Arabians called Autei, doe inhabite.) The third taketh his head and beginning at Gereum, which they call Adipſon, and holdeth on through the ſaid Arabians, and is 60 miles neerer way, but full of craggie hills and altogether without waters. All theſe foreſaid wayes lead to the citie Arſinoë, built upon the gulfe Charandra by *Ptolomæus Philadelphus*, and bare his ſiſters name: and verily hee was the firſt that diſcovered thoſe parts, and ſearched narrowly into the region Trogloditicum: and the river that paſſeth by Arſinoë, hee called Ptolomæus. Within a little of this place, there is a little towne named Ænnum; for which, ſome there be that write, Philotera. Beyond them, are the Azarei: Arabians of the wilder ſort and halfe Tro-
D glodites, by reaſon they marrie their wives from out of the Troglodites countrey. Beeing paſt theſe coaſts, you ſhall find the Ilands Sapyrene and Scytala: and within a little thereof, deſerts untill you come to Myos-hormos, where there is a fountaine called Taduos, the mount Eos, the Iſland Lambe, many havens beſides, and Berenice a towne, bearing the name of the mother to K. *Ptolomæus Philadelphus*, to which there is a way lying from Coptos, as we have ſaid: and laſt of all, the Arabians called Autei, and Gnebadei. Now it remaineth to ſpeake of the region Trogloditicum, which the auncient men of old time called Michoë, and others Midoë: and therein ſtandeth the mountaine Pentedactylos. Vpon the coaſt of this countrey, there lye to be ſeene certaine Iſlands called Stenæ-deiræ; and others no fewer in number, named Halonneſi: alſo Cardamine, and Topazos, which Iland gave the name to the precious ſtone called the Topaze.
E Then come you to an arme of the ſea betweene two lands, full of petie Iſlands, whereof that which is called Mareu, is well ſerved with water ſufficient: another, Eratonos, is altogither drie and unprovided of freſh water. Theſe Iſlands tooke name of two captaines and governors there under the king. Withinforth farther into the firme land, inhabite the Candei, whome they call Ophiophagi, becauſe they are wont to feed on ſerpents: and in truth there is not another countrey that breeds them more than it. King *Iuba*, who ſeemeth to have taken great paines in the diligent peruſing and diſcoverie of theſe parts, omitted in all this tract (unleſſe there be ſome fault and defect in them that copied out his firſt originall) to ſpeake of a ſecond citie named Berenice, with the addition of Panchryſos; as alſo of a third called Epidires, and yet renowmed it is in regard of the place whereupon it is ſeated: for ſituate it is upon a knap of land bearing far into
F the Red ſea, even where the mouth of it is not above 4 miles and an halfe, from Arabia. Within the proſpect of this tract there is the Iſland Cytis, which alſo bringeth forth good ſtore of the Topaze ſtones. Beyond this quarter, nothing but woods and forreſts, where king *Ptolomæus* ſurnamed *Philadelpus* built the citie Ptolemais, onely for to chaſe and hunt the Elephant, neere to the lake Monoleus; and in regard of his game there, he named it Epi-theras. This is the verie

countrey

countrey mentioned by me in the ſecond booke: wherein for 45 dayes before mid-ſummer or the entrance of the ſunne into Cancer, and as many after, by the ſixt houre of the day, that is to ſay, about noone, no ſhadowes are to be ſeene: which being once paſt, all the day after they fall into the South. As for other dayes of the yeere beſides, they ſhew into the North: whereas in that citie Berenice which wee mentioned firſt, upon the very day onely of the Sun-ſteed, at the ſixt houre or noon-tide, the ſhadowes are cleane gone and none to be ſeene (for otherwiſe there is no alteration at all to be obſerved throughout the yeere) for the ſpace of 600 miles all about Ptolemais. A ſtrange and notable thing worth obſervation, that it ſhould be ſo but in one hour all the yeere long, and a matter that gave great light and direction to the world, yea and miniſtred occaſion to a ſingular invention and ſubtill concluſion: for *Eratoſthenes* upon this undoubted argument and demonſtration of the diverſitie of ſhadowes, ſet in hand hereupon to take the meaſure of the whole globe of the earth, and put it downe in writing to all poſteritie. Beyond this citie Ptolemais, the ſea chaungeth his name and is called Azanium; over which the cape ſheweth it ſelfe, which ſome have written by the name of Hiſpalus: alſo, anon appeareth the lake Mandalum, and in it the Iſland Colocaſitis: but in the deepe ſea many more, wherein are taken many tortoiſes. Farther upon this coaſt is the towne Suchæ, and then you may diſcover in the ſea the Iſland Daphnis; and the citie Aduliton, built by certaine Ægyptian ſlaves who ran away from their maſters and tooke no leave: and verily this is the greateſt and moſt frequented mart towne of all the Troglodites countrey, and put the Ægyptians to them: and it is from Ptolemais 5 daies ſailing. Thither is brought great ſtore of Ivorie, or the Elephants tooth, and of the horne of the Rhinoceros: there may a man have plentie of the Sea-horſe hides, of tortoiſe ſhelles, of little monkies or marmoſets: there alſo a man may be ſped with bondſlaves. A little beyond are the Æthiopians, called Aroteres: alſo the Iſlands named Aliæa: and beſides them other Iſlands, namely, Bacchias, Antibacchias, and Stratonis: being paſt them, there is a gulfe in the coaſt of Æthiopia, as yet not diſcovered or knowne by any name: a thing that may make us marveile much, conſidering that our merchants ſearch into farther corners than ſo. Alſo a promontorie, wherein there is a fountaine of freſh water named Curios much deſired of the ſailers that paſſe that way, and in great reſpect for the refreſhing that it yeeldeth unto them: beyond it, is the harbor or port of Iſis, diſtant from the town of the Adulites aboveſaid, 10 daies rowing with ores: and thither is the Troglodites myrrhe brought and there laid up. Before this haven, there lye in the ſea two Iſlands, named Pſeudopylæ: and as many farther within, called Pylæ: in the one of them be certaine pillars of ſtones, engraven with ſtraunge and unknowne letters. When you are paſt this haven, you come to an arme of the ſea called Abalites: within it is the Iſland Diodori, and other lying deſert and unpeopled. Alſo along the continent, there is much wilderneſſe: but being paſt them, you come to the towne Gaza: the promontorie alſo and port Moſſylites, unto which ſtore of cynamon and canell is brought. Thus farre marched king *Seſoſtris* with his armie. Some writers make mention of one towne more in Æthiopia beyond all this, upon the ſea ſide, called Baradaza. King *Iuba* would have the Atlantick ſea to begin at the promontorie or cape above-named, Moſſylites: on which ſea (as he ſaith) a man may ſaile very well with a Weſt-northweſt wind, by the coaſts of his kingdoms of Mauritania or Marocco, as farre as to the coaſts of Gibraltar called Gades: and ſure he ſpeaketh ſo confidently thereof, as I wil not altogither diſcredit his reſolution in this behalfe. From a promontorie of the Indians called Lepteacra, and by others Drepanum, unto the Iſle of Malchu, he ſaith plainly, that by a ſtraight and direct courſe it is 15 hundred miles, and never reckon thoſe parts that are burnt with the ſunne. From thence to a place called Sceneos, he affirmeth it is 225 miles: and from it to the Iſland Sadanum, 150 miles: and thus by this meanes hee concludeth, that in all, to the open and known ſea, it is 1885 miles. But all other writers beſides him were of opinion, that there could not poſſibly be any ſailing upon it, for the exceeding heat of the ſunne. Over and beſides, the Arabians named Aſſitæ, doe much harme and annoyance from out of the Iſlands which they hold, unto merchants that trafficke that way: for theſe Arabians, according as their name doth import, couple bottles made of good oxe leather, two by two together, and going upon them with eaſe as if it were a bridge under them, ſcoure the ſeas, and ſhooting their empoyſoned arrowes, practiſe pyracie, to the great loſſe and miſchiefe of merchants and ſailers. The ſame *Iuba* writeth moreover, that there be certaine people of the Troglodites, named Therothoes, for their hunting of wild beaſts, of their exceeding and wonderfull ſwiftneſſe in chaſing of Deere

upon

A upon land: as the Ichthyophagi for courſing of fiſh in the ſea, ſwimming as naturally as if they were water creatures. Moreover, hee nameth other nations in thoſe parts, as the Bargeni, Zageres, Chalybes, Saxinæ, Syreces, Daremes and Domazanes. Futthermore, hee affirmeth, that the people inhabiting along the ſides of Nilus from Syene unto Meroë, are not Æthyopians, but Arabians, who for to ſeeke freſh water, approched Nilus, and there dwelt: as alſo that the citie of the Sunne, which we ſaid before in the deſcription of Ægypt, ſtandeth not far from Memphis, was firſt founded and built by the Arabians. Contrariwiſe, other Geographers there bee, who affirme, that the farther ſide or banke of Nilus is no part of Æthyopia, and they lay it as a dependant annexed to Affrick. But be it as will be, I will not greatly buſie my head thereabout, but ſuffer every man to abound in his owne ſence, and have his own way: only I will content my
B ſelfe with this, to ſet downe the townes on both ſides thereof, in that order as they are declared unto mee. And firſt to begin with that ſide toward Arabia: after you are paſt Syene, enter you ſhall upon the countrey of the Catadupi, and ſo forward into the land of the Syenites. Wherein theſe townes ſtand in order as followeth: Tacompſon, which ſome have called Thatire, Aranium Seſanium, Sandura, Naſandum, Anadoma, Cumara, Beda and Bochiana, Leuphithorga, Tantarene, Machindira, Noa, Gophoa, Gyſtatæ, Megeda, Lea, Rhemnia, Nupſia, Direa, Patara, Bagada, Dumana, Rhadata, wherein a golden cat is worſhipped as a god. Boron in the midland part of the continent, and Mallos, the next towne to Meroë. Thus hath *Bion* digeſted and ſet them downe. But king *Iuba* hath raunged them otherwiſe in this manner. Firſt, Megatichos, a towne ſituate upon a hill betweene Ægypt and Æthyopia, which the Arabians uſe to call Myr-
C ſon: next to it Tacompſon: then Aranium, Seſanium, Pide, Mamuda, and Corambis; neere unto it a fountaine of liquid Bitumen: Hammodara, Proſda, Parenta, Mama, Theſiara, Gallæ, Zoton, Graucome, Emeum, Pidibotæ, Hebdomecontacometæ, and the Nomades, who ordinarily are encamped under tents and pavilions. Cyſte, Pemma, Gadagale, Palois, Primmis, Nupſis, Daſelis, Patis, Gambrenes, Magaſes, Segaſmala, Cranda, Denna, Cadeuma, Thena, Batha, Alana, Macum, Scammos, and Gora within an Iſland. Beyond which, Abala, Androcalis, Seres, Mallos and Agoce. And thus much on the ſide of Arabia. Now for Affricke ſide, they are in this wiſe reckoned. Firſt, Tacompſos, according to the others name, or a parcell rather of the former: then, Magora, Sea, Edoſa, Pelenaria, Pyndis, Maguſa, Bauma, Linitima, Spyntuma, Sydopta, Genſoa, Pindicitora, Eugo, Orſima, Suaſa, Maunia, Rhuma, Yrbubuma, Mulona, which town the
D Greeks were wont to call, Hypaton: Pagoargas, Zanones, & there begin the Elephants to come in, Mamblia, Berreſa, Cetuma. There was moreover a town ſometime named Epis, ſituate againſt Meroë: but raſed it was and utterly deſtroied before that *Bion* wrote his Geographie. See what citties and towns of name were recorded in times paſt to have ben in thoſe parts, untill you come to the Iſle Meroë. And yet at this day there is neither ſticke nor ſtone to be found of any of them in a manner, on neither ſide. Only deſerts and a vaſt wilderneſſe in ſteed of them, by report made unto *Nero* the Emperour by the Prætorian ſouldiours, ſent thither from him under the leading of a Tribune or Colonell, to diſcover thoſe quarters of Æthyopia, and to relate accordingly: at what time as amongſt other his deſſignes, that prince intended an expedition with his armie againſt the Æthyopians. And yet before his time, even in the daies of *Auguſtus Cæſar* of happie
E memorie, the Romanes pierced thither with a power of armed men under the conduct of *Pub. Petronius*, a knight of Rome, and governour of Ægypt, deputed by the ſaid Emperour. Where he forced by aſſault and conquered all thoſe townes in Æthyopia which he then found ſtanding, in this order following: namely, Pſelcis, Primis, Abaccis, Phthuris, Cambuſis, Attena, Stadiſis, where the river Nilus runneth downe with ſuch a mightie fall, that with the noiſe thereof the inhabitants there by, looſe their hearing and become deafe. Beſides theſe hee woon alſo and ſacked Napata. And albeit he marched forward ſtill a great way into the countrey, even 870 myles beyond Syene, yet this Romane armie of his laid not all waſt in thoſe parts, and left the countrie ſo deſert as now it is. No, no: It was the Ægyptians warres and not the Romanes that gave the waſt to Æthyopia: and albeit ſometimes it woon and otherwhiles loſt; one time bare the ſcepter
F and ruled, another time underwent the yoke, and were ſubdued: yet was it of great name in the world and puiſſant, untill the reigne of king *Memnon*, who ruled at the time of the Trojane war: yea, and Syria was ſubject unto it, as alſo the coaſt of our ſea in king *Cepheus* daies, as appeareth by the fabulous tales that goe as touching *Andromeda*. Semblably the Geographers varie and diſagree much about the meaſure and dimenſion of Æthyopia. And firſt of all others, *Dalion*, al-

beit he passed farre beyond Meroë: after him, *Aristocreon*, *Bion*, and *Basilis*. As for *Simonides* (the younger and the later writer) had sojourned in Meroë five yeeres, when he wrot of Æthyopia. For *Timosthenes* the Admirall of *Ptolomæus Philadelphus* his navie, hath left in record, that from Syene to Meroë is 60 daies journey, without any other particularizing of the measure by miles. But *Eratosthenes* precisely noteth, that it is 625 miles. *Artemidorus* but 600. *Sebosius* affirmeth, That from the frontiers of Ægypt it is 1675 miles. From whence, the last rehearsed writers count forward but 1270. But all this difference and dispute about this point, is lately determined & ended by the report of those travellers whom *Nero* sent of purpose to discover those countries: and they made relation of the truth upon their certaine knowledge, that it is 874 miles from Syene in this manner particularly by journies. Namely, from the said Syene to Hiera-Sycaminon 54 miles: from thence to Tama 75 miles. From Tama to the Euonymites countrey, the first of all the Æthyopians, 120. Forward to Acina 54. To Pitara 25. To Tergedum 106 miles. Where by the way it is to be noted, that in the middest of this tract lieth the Island Gagandus: where they began first to have a sight of the birds called Parrats: and beyond another Island in the same way which is called Artigula, they might see monkies and marmosets: but being once beyond Tergedum, they met with the beasts Cynocephali. From thence to Napata 80 miles: this is the only little towne among all the rest beforenamed. From which to the Island Meroë is 360 miles. They reported moreover, that about Meroë (& not before) the grasse and hearbes appeared fresh and greene; yea, and the woods shewed somewhat in comparison of all the way besides, and that they espied the tracts of Elephants and Rhinocerotes where they had gone. As for the towne it selfe Meroë, they said it was within the Island from the very entrie therof 70 miles: & that just by, there was another Island called Tatu, which yeelded a bay or haven to land at for them that took the arme and channell of Nilus on the right hand. As for the building within Meroë, there were but few houses in it: that the Isle was subject unto a ladie or queene named *Candace*, a name that for many yeeres alreadie went from one queene to another successively. Within this towne there is the temple of great holinesse and devotion in the honour of *Iupiter Hammon*: and in all that tract many other chappels. Finally, so long as the Æthyopians swaied the scepter and reigned, this Island was much renowmed and very famous. For by report, they were wont to furnish the Æthyopian king with armed men 250000, & to maintain of Artisanes 400000. Last of all there have been counted 45 kings of the Æthyopians, and so it is reported at this day.

Chap. xxx.

The manifold, strange, and wonderfull formes and shapes of men.

All Æthyopia in generall was in old time called Ætheria: afterwards Atlantia: and finally of *Vulcanes* sonne *Æthiops*, it tooke the name Æthyopia. No wonder it is, that about the coasts thereof there be found both men and beasts of strange and monstrous shapes, considering the agilitie of the Sunnes fierie heat, so strong and powerfull in those countries, which is able to frame bodies artificially of sundrie proportions, and to imprint and grave in them divers formes. Certes, reported it is, that far within the countrey Eastward there are a kind of people without any nose at all on their face, having their visage all plain and flat. Others again without any upper lip, and some tongueless. Moreover, there is a kind of them that want a mouth, framed apart from their nosethrils: and at one and the same hole, and no more taketh in breath, receiveth drinke by drawing it in with an oaten straw, yea, and after the same manner feed themselves with the graines of oates, growing of the owne accord without mans labour and tillage for their onely food. And others there be, who in steed of speech and words, make signes, as well with nodding their heads, as moving their other members. There are also among them, that before the time of *Ptolomæus Lathyrus* king of Ægypt, knew no use at all of fire. Furthermore, writers there bee, who have reported, that in the countrey neere unto the meeres and marishes from whence Nilus issueth, there inhabite those little dwarfes called Pygmei. But to returne againe to the utmost coasts of Æthyopia, where we left: there is a continuall raunge and course of mountaines all red like fire, as if they were ever burning. Moreover, beyond Meroë there is a countrey lying above the Troglodites and the red sea: where, after you be three daies journey from Napata toward the coast of the said red sea, you shall find that in most places they save raine water for their ordinarie use to drinke, and otherwise: all the countrey betweene is very plenteous and full

of

A of gold mines. All beyond this region is inhabited by the Atabuli, a people alſo of Æthyopia. As for the Megabares, whom ſome have named Adiabares, they lie againſt Meroë, and have a towne bearing the name of *Apollo*. Among them are certain Nomades encamping under tents and tabernacles, who live of Elephants fleſh. Iuſt againſt them in a part of Affricke are the long living Macrobians. Againe, being paſt the Megabarenes, you come unto the Memnones & Daveli: and 20 daies journey from them, to the Critenſes. Beyond whom you meet with the Dochi, and the Gymnetes who are ever naked. Soone after you ſhall find the Anderæ, Mathitæ, Meſagebes, Hipporeæ, who be all over blacke, and therfore they colour and paint their bodies with a kind of red chalke or rudle called Rubrica. But upon the coaſt of Affricke are the Medimni. Beyond whom you ſhal come to another ſort of Nomades living under tents, who feed of no other
B thing but the milke of certaine creatures headed like dogs, called Cynocephali: alſo to the Olabi and Syrbotæ, who are reported to be eight cubites high. Moreover, *Ariſtocreon* ſaith, That on Libya ſide, five daies journey from Meroë, there is a towne called Tolei: and 12 daies journey from thence, there ſtandeth Eſar, a towne built by the Ægyptians, who fled thither to avoid the crueltie and tyrannie of king *Pſammeticus*. And reported it is, that the Ægyptians held it for 300 yeeres. Alſo, that the ſame fugitives founded the towne Daron on the contrarie ſide in the coaſt of Arabia. But that which *Ariſtocreon* nameth Eſar, *Bion* called Sapa, and ſaith withall, that the very word Sapa ſignifieth in the Æthyopian language, ſtrangers or aliens come from other parts. Hee affirmeth beſides, that their capitall citie is within an Iſland, Sembobitis, and that Sai within Arabia, is the third citie of that nation. Now, betweene the mountaines and the river Ni-
C lus, are the Symbarians and the Phalanges: but upon the very hils live the Aſachæ, who have many other nations under them: and they are by report ſeven daies journey from the ſea. They live upon the veniſon of Elephants fleſh, which they uſe commonly to hunt and chaſe. As for the Iſland within Nilus, of the Semberrites, it is ſubject to a queene. And eight daies journey from thence lieth the country of the Æthyopians, named Nubæi. Their cheefe town Tenupſis is ſeated upon the river Nilus. Beyond the Nubians, you enter upon the countrey of the Sambri: where all the foure-footed beaſts, yea, even the very Elephants, are without eares. Vpon the coaſt of Affricke inhabite the Ptœambati and Ptœmphanæ: who have a dog for their king, and him they obey, according to the ſigns which he maketh by moving the parts of his bodie, which they take to be his commaundements, and religiouſly they doe obſerve them. Their head citie is Au-
D ruſpi, farre diſtant from Nilus. Beyond them are the Achiſarmi, Phaliges, Marigeri, and Caſamarri. *Bion* affirmeth, That beyond Pſembobitis, there bee other townes in the Iſlands of that coaſt, toward Meroë, all the way as you paſſe for 20 daies journey. The towne of the next Iſland is Semberritarum, under the queene: likewiſe another called Aſar. Alſo there is a ſecond Iſland hauing in it the towne Daron: a third which they call Medoe, wherein ſtandeth the towne Aſel: and a fourth named Garode, like as the towne alſo. Then along the bankes of Nilus are many townes, to wit, Navos, Modunda, Andabis, Setundum, Colligar, Secande, Navectabe, Cumi, Agroſpi, Ægipa, Candrogari, Araba, and Summara. The region above Sirbithim, where the mountaines doe end, is reported to have upon the ſea coaſt certaine Æthyopians called Niſicaſtes and Niſites, that is to ſay, men with three or four eies apeece: not for that they are ſo eied in-
E deed, but becauſe they are excellent archers, & have a ſpeciall good eie in aiming at their mark, which lightly they will not miſſe. *Bion* affirmeth moreover, That from that clime of the heaven which beareth above the greater Syrtes, & bendeth toward the South Ocean ſea, they be called Dalion, to wit, the Ciſorians and Longopores, who drinke and uſe raine water only. And beyond Oecalices for five daies journie, the Vſibalks, Iſuelians, Pharuſeans, Valians and Ciſpians. All the reſt are nothing but deſerts not inhabited. But then he telleth fabulous and incredible tales of thoſe countries. Namely, that Weſtward there are people called Nigroe, whoſe king hath but one eie, and that in the mids of his forehead. Alſo he talketh of the Agriophagi, who live moſt of panthers and lions fleſh. Likewiſe of the Pomphagi, who eat all things whatſoever. Moreover, of the Anthropophagi, that feed of mans fleſh. Furthermore, of the Cynamolgi, who have
F heads like dogs. Over and beſides, the Artabatites who wander and goe up and downe in the forreſts like fourefooted ſavage beaſts. Beyond whom, as hee ſaith, bee the Heſperij, and Peroeſi, who, as we ſaid before, were planted in the confines of Mauritania. In certain parts alſo of Æthyopia the people live of locuſts onely, which they pouder with ſalt, and hang up in ſmoke to harden, for their yeerly proviſion, and theſe live not above 40 yeers at the moſt. Finally, *Agrippa* ſaith

that all Æthyopia, and take the land with it of *Prester Iehan* bordering upon the red sea, containeth in length 2170 miles: & in breadth, together with the higher Ægypt, 1291. Some Geographers have taken the breadth in this maner. From Meroë to Sirbitum, 12 daies journie upon Nilus: from thence to the countrie of the Davillians another 12, and from them to the Æthyopian Ocean 6 daies. But in general al writers in a maner do resolve upon this, that between the Ocean and Meroë it is 725 miles: and from thence to Syene, as much as we have set down before. As for the positure and situation of Æthiopia, it lieth Southeast and Southwest. In the Meridian South parts thereof, there be great woods of Ebene especially, alwaies greene. Toward the mids of this region, there is a mightie high mountain looking over the sea, that burneth continually, which the Greeks call Theon-ochema, that is to say, the chariot of the gods: from the which it is counted foure daies journey by sea to the promontorie or cape called Hesperion-Ceras, which confineth upon Africke, neere to the Hesperian Æthiopians. Some writers hold, that this tract is beautified with pretie little hils, and those pleasantly clad and garnished with shadowie groves, wherein the Ægipanes and Satyres doe converse.

Cap. de bonne Esperance.

Chap. xxxi. *The Ilands in the Aethiopian sea.*

Ephorus, *Eudoxus*, and *Timosthenes*, do all agree in this, that there be very many Islands in all that sea. *Clitarchus* witnesseth, that report was made to *Alexander* the Great, of one above the rest, which was so rich and well monyed, that for an ordinarie horse the inhabitants would not sticke to give a talent of gold: also of another, wherein was found a sacred hill adorned with a goodly wood upon it, where the trees distilled and dropped sweet water of a wonderfull odoriferous smell. Moreover, full against the Persian gulfe, lyeth the Island named Cerne, opposite unto Æthiopia, but how large it is, or how farre off it beareth into the sea from the continent, is not certainly knowne: this onely is reported, that the Æthiopians and none but they, are the inhabitants thereof. *Ephorus* writeth, that they who would saile thither from the red sea, are not able for extreame heat to passe beyond certaine columnes or pillars, for so they call the little Islands there. Howbeit *Polybius* avoucheth, that this Island Cerne where it lyeth in the utmost coast of the Mauritanian sea over-against the mountaine Atlas, is but 8 stadia from the land. And *Cornelius Nepos* affirmeth, that likewise it is not above a mile from the land, over against Carthage: and besides, that it is not above two miles in circuit. There is mention made also by Authors, of another Iland before the said mountaine Atlas, named also thereupon Atlantis. And five daies sailing from it, appeare the deserts of the Æthiopian Hesperians, together with the foresaid cape, which we named Hesperion-Ceras, where the coasts of the land begin first to turne about their forefront to wind Westward, and regard the Atlanticke sea. Iust over-against this cape, as *Xenophon Lampsacenus* reporteth, lye the Islands called Gorgates, where somtimes the Gorgones kept their habitation, and two daies sailing they are thought to be from the firme land. *Hanno*, a great commaunder and generall of the Carthaginians, landed there with an armie: who made this report from thence, That the women were all over their bodies hairie: as for the men, he could not catch one of them, so swift they were of foot that they escaped out of all sight: but he flead two of these Gorgone women and brought away their skinnes, which for a testimoniall of his beeing there, and for a wonder to posteritie, hee hung up in *Iunoes* temple, where they were seene, untill Carthage was woon and sacked. Beyond these Iles, there are by report, two more discovered, by the name of Hesperides. But so uncertaine are all the intelligences delivered concerning these parts, that *Statius Sebosus* affirmeth, that it is 40 good daies sailing from the Islands of these Gorgones along the coast of Atlas, unto the Isles of the Hesperides; and from thence to Hesperion-Ceras, but one. As little resolution and certaintie there is, as touching the Islands of Mauritania. In this onely they all jumpe and accord, that king *Iuba* discovered some few of them over-against the Autolotes, in which hee meant and purposed to die Gætulian purple.

Chap. xxxii.

Of the Islands Fortunatæ, or Canarie.

Some Authors there be who thinke, that the Islands Fortunatæ, and certaine others besides them, are beyond the Autolotes: among whome, the same *Sebosus* above rehearsed was so bold, as to speake of their distances: and namely, that the Iland Iunonia is from Gades

750 miles;

A 750 miles: and that from it Weſtward, the Iſles Pluvialia and Capraria, are as much. Alſo that in the Iland Pluvialia there is no freſh water, but onely that which they have by ſhowres of rain. He ſaith moreover, that from them to the Fortunate Iſlands are 250 miles; which lye 8 myles from the coaſt of Mauritania to the left hand, called The coaſt of the ſunne, or Valley of the ſunne, for that it is like a valley or hollow levell floore of earth, whereupon alſo it is called Planaria, reſembling an even plaine. And in very truth, this valley containeth in circuit 300 miles: wherein are trees to be ſeene that grow up in height to 144 foot. As for the Iſlands named Fortunatæ, *Iuba* learned thus much by diligent inquiſition, that they lie from the South neere to the Weſt 625 miles from the Ilands Purpuratiæ, where they die purple: ſo as to come thither, a man muſt ſaile 250 miles above the Weſt, and then for 75 miles more bend his courſe Eaſtward. He
B ſaith moreover, that the firſt of theſe Iſlands is called Ombrion, wherein are to be ſeene no token or ſhew at all of houſes. Alſo that among the mountains, it hath a lake or meere: and trees reſembling the plant Ferula, out of which they preſſe water: that which iſſueth out of the blacke trees of that kind, is bitter; but out of the whiter ſort, ſweet and potable. As for a ſecond, he writeth that it is named Iunonia, wherin there is one little houſe or chappel made of ſtone: beyond it, but neere by, there is a third of the ſame name, but leſſe than the other: and then you come to a fourth called Capraria, full of great Lizards. Within a kenning from theſe, lyeth the Iſland Nivaria, which tooke this name of the ſnow that lieth there continually; and beſides, it is full of miſts and fogges. The next to it and the laſt of all, is Canaria, ſo called by reaſon of a number of dogges of mightie bigneſſe; of which king *Iuba* brought away two: and in this Iſland there are
C ſome markes remaining of buildings which give teſtimonie that ſometime it was inhabited and peopled. And as all theſe Ilands generally doe abound plentifully in fruitfull trees, and flying foules of all ſorts: ſo this above the reſt named Canaria, is repleniſhed with rowes of date trees that beare aboundance of dates, and likewiſe with pine trees that yeeld ſtore of pine nuts. Furthermore he affirmeth, that there is great plentie of honey in it: that the rivers therein are well ſtored with fiſh, and the Sturgeon eſpecially: in which there groweth the red Papyrus as ordinarily as in Nilus. Howbeit in concluſion he ſaith, that theſe Ilands are much annoyed with great whales and ſuch monſters of the ſea, that daily are caſt upon the ſhore, which lye above ground and putrifie like carrion. Thus having at large gone through the deſcription of the globe of the earth, as well without as within, it remaineth now to knit up briefly with the meaſure and com-
D paſſe of the ſeas.

Chap. xxxiii.

A ſummarie of the earth, digeſted according to the dimenſions thereof.

Polybius ſaith, that from the ſtreights of Gilbraltar, unto the very mouth and firth of Mœotis, it is found by a direct and ſtreight courſe to be 3437 miles and an halfe. Begin there againe, and hold on a right courſe Eaſtward to Sicilie, it is 1260 miles and an halfe. From thence forward to the Iland Creta, 375 miles: forward to Rhodes, 146 miles and an halfe: to the Chelidoniæ Ilands as much, and ſo to Cyprus 325 miles: from whence to Seleucia Pieria in Sy-
E ria, 115 miles. Which particulars being laid togither, make by computation the groſſe ſumme of 2340 miles. Howbeit, *Agrippa* counteth 3440 miles for all this diſtance above rehearſed, beginning at the ſtreights of Gilbraltar aboveſaid, and carrying the length ſtreight forward to the gulfe of Iſſa. In which reckoning of his, I wot not whether there be an errour in the number, foraſmuch as the ſame writer hath ſet downe from the ſtreight of Meſſine in Sicilie to Alexandria in Ægypt, 1250 miles. As for the whole circuit that may be comprehending therein, all the gulfes and creekes before-named, from the ſame point where we firſt began, as far as to the lake Mœotis, is 15600 miles. *Artemidorus* addeth thereto 756 miles. And the ſame Geographer writeth, that take the lake Mœotis to the reſt, all commeth to 17390 miles. Lo, what the meaſure is of the ſeas taken by Philoſophers and learned men, without armour and weapon in hand; of
F men I ſay, who have not feared to hazard themſelves boldly and provoke Fortune, in traverſing the ſeas ſo farre off. Now are we to compare reſpectively the greatnes of ech part of the world in ſeverall: notwithſtanding that I ſhall find much adoe and difficultie enough therin, conſidering the diſagreement of authors in that behalfe. But moſt fitly and eaſily ſhall this appeare which we ſeek for, if we join longitude & latitude togither. According to which preſcript rule to begin with

Europe, it may wel contain in largenes 8148 miles. Affrick (taking the middle and mean computation between them all that have set it down) containeth in length 3748 miles. As for the bredth of so much as is known and inhabited, in no place where it is wideſt exceedeth it 250 miles. True it is, that *Agrippa* would have it to contain 910 miles in breadth, beginning at the bounds of Cyrene, and so comprehending in this measure the deserts thereof as farre as to the Garamants, so far as is known and discovered, and then the whole measure collected into one generall summe, amounteth to 4608 miles. As for Asia, confessed it is and resolved upon by all Geographers, that in length it carrieth 63750 miles: and verily in bredth, (if you account from the Æthiopian sea to Alexandria situate upon Nilus, so as your measure run through Meroë and Syrene) it taketh 1875 miles: whereby it appeareth evidently, that Europe is little wanting of halfe as bigge againe as Asia: and the same Europa, is twise as much againe as all Africa and a sixt part over. Reduce now all these summes together, it will be found cleere, that Europe is a third part of the whole earth, and an eight portion over and somewhat more: Asia a fourth part, with an over-deale of 14: and Africke a fifth part, with an over-plus of a sixtieth portion. To this calculation, we will set to, as it were to boot, one subtill devise and invention more of the Greeks, which sheweth their singular wit (to the end we should omit nothing that may serve our turne in this Geographie of ours) and that is this: After that the positure and site of everie region is knowne and set downe, how a man may likewise come to the knowledge what societie and agreement there is betweene the one and the other, either by length of daies and nights, by the shadow at noone-day, or by the equalitie of climates of the world. To bring this about effectually, I must part and digest the whole earth into certaine sections or even portions, answerable to those in heaven; (whereof there be verie many) which our Astronomers and Mathematicians call Circles, but the Greekes, Parallels.

Chap. xxxiiii.

The division of the earth into Climates or lines Parallele, and equall shadowes.

For to make an equall partition of the world, begin we will at the Meridionall Indians, and go directly as farre as Arabia, and the inhabitants of the red sea. Vnder this climate are comprised the Gedrosians, Persians, Carmanes, and Elimæans: Parthyene, Aria, Susiane, Mesopotamia, Seleucia surnamed Babylonia, Arabia so farre as Petræ inclusively, Cœle-Syria, and Pelusium in Ægypt: the low countries, which are called the tract of Alexandria: the maritime coasts of Affricke: all the townes of Cyrenaica, Thapsus, Adrumetum, Clupea, Carthage, Vtica, both Hippoes, Numidia, both realmes of Mauritania, the Atlanticke sea, and *Hercules* pillars. In all the circumference of this climate and parallele, at noone-tide upon an Æquinoctiall day, the style in the diall which they call Gnomon 7 foot long, casteth a shadow not above foure foot. The longest night or day in this climate, is 14 houres: and contrariwise the shortest, ten. The second circle or parallele line, beginneth at the Indians Occidentall, and passeth through the mids of Parthia, Persepolis, the hithermost parts of Persis (in respect of Rome) the hither coast of Arabia, Iudæa, and the borders neere unto the mountaine Libanus. Vnder the same are conteined also Babylon, Idumæa, Samaria, Hierusalem, Ascalon, Ioppe, Cæsarea, Phœnice, Ptolemais, Sydon, Tyrus, Berytrus, Botrys, Tripolis, Byblus, Antiochia, Laodicea, Seleucia, the sea coasts of Cilicia, Cyprus, the South part of Candie, Lilybœum in Sicilia, the North parts of Affricke and Numidia. The Gnomon in a diall upon the Æquinoctiall day 35 foot of length, maketh a shadow 24 foot long. The longest day or night, is 14 houres Æquinoctiall, and the fifth part of an houre. The third circle beginneth at the Indians next unto the mountaine Imaus, and goeth by the Caspian gates or streights hard by Media, Cataonia, Cappadocia, Taurus, Amanus, Issus, the Cilician streights, Soli, Tarsus, Cyprus, Pisidia, Syde in Pamphilia, Lycaonia, Patara in Lycia, Xanthus, Caunus, Rhodus, Coüs, Halicarnassus, Gnidus, Doris, Chius, Delus, the mids of the Cyclades, Gytthium, Malea, Argos, Laconia, Elis, Olympia, Messene, Peloponnesus, Syracusa, Catine, the mids of Sicily, the South part of Sardinia, Cardei, and Gades. In this clime the Gnomon of 100 inches, yeeldeth a shadow of 77 inches. The longest day hath Æquinoctiall hours 14 and an halfe, with a thirtith part over. Vnder the fourth circle or parallele lye they that are on the other side of Imaus, the South parts of Cappadocia, Galatia, Mysia,

Sardis,

A Sardis, Smyrna, Sipylus, the mountaine Tmolus in Lydia, Caria, Ionia, Trallis, Colophon, Epheſus, Miletus, Samos, Chios, the Icarian ſea, the Iſlands Cyclades lying Northward, Athens, Megara, Corinth, Sicyon, Achæa, Patræ, Iſthmos, Epirus, the North parts of Sicilie, *Narbonenſis Gallia toward the Eaſt, the maritime parts of Spaine beyond new Carthage, and ſo into the Weſt. To a Gnomon of 21 foot, the ſhadowes anſwere of 17 foot. The longeſt day is 14 Æquinoctiall houres, and two third parts of an houre. The 5 diviſion conteineth under it, from the entrance of the Caſpian ſea, Bactra, Iberia, Armenia, Myſia, Phrygia, Helleſpontus, Troas, Tenedus, Abydus, Scepſis, Ilium, the hill Ida, Cyzicum, Lampſacum, Sinope, Aniſum, Heraclea in Pontus, Paphlagonia, Lemnus, Imbrus, Thaſus, Caſſandria, Theſſalia, Macedonia, Lariſſa, Amphipolis, Theſſalonice, Pella, Edeſſa, Beræa, Pharſaliæ, Caryſtum, Eubœa, Bœo-
B tia, Chalcis, Delphi, Acarnania, Ætolia, Apollonia, Brundiſium, Tarentum, Thurij, Locri, Rhegium, Lucani, Naples, Puteoli, the Tuſcan ſea, Corſica, the Baleare Iſlands, the middle of Spain: A Gnomon of 7 foot, giveth ſhadow 6 foot. The longeſt day is 15 Æquinoctiall houres. The ſixt parallele compriſeth the citie of Rome, and conteineth withall the Caſpian nations, Caucaſus, the North parts of Armenia, Apollonia upon Rhindacus, Nicomedia, Nicæa, Chalcedon, Bizantium, Lyſimachia, Cherrhoneſus, the gulfe Melane, Abdera, Samothracia, Maronea, Ænus, Beſſica, the midland parts of Thracia, Pœonia, the Illyrians, Dyrrhachium, Canuſium, the utmoſt coaſts of Apulia, Campania, Hetruria, Piſæ, Luna, Luca, Genua, Liguria, Antipolis, Maſſilia, Narbon, Tarracon, the middle of Spaine called Tarraconenſis, and ſo through Luſitania: To a Gnomon of 9 foot, the ſhadow is anſwerable 8 foot. The longeſt day hath 15 Æquinoctiall
C houres, and the ninth part of an houre, or the fifth as *Nigidius* is of opinion. The 7 diviſion beginneth at the other coaſt of the Caſpian ſea, and falleth upon Callatis, Boſphorus, Boryſthenes, Tomos, the backe parts of Thracia, the Tribals countrey, the reſt of Illyricum, the Adriaticke ſea, Aquileia, Altinum, Venice, Viceria, Patavium, Verona, Cremona, Ravenna, Ancona, Picenum, Marſi, Peligni, Sabini, Vmbria, Ariminum, Bononia, Placentia, Mediolanum, and all beyond Apenninum: alſo over the Alpes, Aquitane in Gaule, Vienna, Pyrenæum, and Celtiberia. The Gnomon of 35 foot, caſteth a ſhadow 36 foot in length; yet ſo, as in ſome part of the Venetian territorie, the ſhadow is equall to the Gnomon. The longeſt day is 15 Æquinoctiall houres, and three fift parts of an houre. Hitherto have we reported the labours in this point of auncient Geographers, and what they have reported. But the moſt diligent and exacteſt mo-
D derne writers that followed, have aſſigned the reſt of the earth not as yet ſpecified, to three other ſections or climates. The firſt, from Tanais through the lake Mœotis and the Sarmatians, unto Boryſthenes, and ſo by the Dakes and a part of Germanie, conteining therein Fraunce, and the coaſts of the Ocean, where the day is ſixteene houres long. A ſecond, through the Hyperboreans and Britaine, where the day is 17 hours long. Laſt of all is the Scythian parallele, from the Rhiphean hills into Thule: wherein (as we ſaid) it is day and night continually by turnes (for ſixe moneths.) The ſame writers have ſet down two parallele circles, before thoſe points where the other began, and which we ſet downe. The one through the Iſlands Meroë and Ptolemais upon the red ſea, built for the hunting of Elephants, where the longeſt daies are but 12 houres and an halfe: the ſecond paſſing through Syrene in Ægypt, where the day hath 13 houres. And
E the ſame Authours have put to every one of the other circles, even to the very laſt, halfe an houre more to the daies length, than the old Geographers.

Thus much of the Earth.

*Languedoc.

THE

THE SEVENTH BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

The Proëme.

THus as you see, we have in the former bookes sufficiently treated of the Vniversall world, of the Lands, Regions, Nations, Seas, Ilands, and renowmed Cities therein contained. It remaineth now to discourse of the living creatures comprised within the same, and their natures: a point doubtlesse that would require as deepe a speculation, as any part else thereof whatsoever, if so be the spirit and mind of man were able to comprehend and compasse all things in the world. And to make a good entrance into this treatise and historie, me thinkes of right wee ought to begin at Man, for whose sake it should seeme that Nature made and produced all other creatures besides: though this great favour of hers, so bountifull and beneficiall in that respect, hath cost them full deere. In so much, as it is hard to iudge, whether in so doing she hath done the part of a kind mother, or a hard and cruell step-dame. For first and formost, of all other living creatures, man she hath brought forth all naked, and cloathed him with the good and riches of others. To all the rest, given she hath sufficient to clad them everie one according to their kind: as namely, shells, cods, hard hides, prickes, shagge, bristles, haire, downe feathers, quils, skailes, and fleeces of wooll. The verie trunkes and stemmes of trees and plants, shee hath defended with barke and rind, yea and the same sometime double, against the iniuries both of heat and cold: man alone, poore wretch, she hath laid all naked upon the bare earth, even on his birth-day, to cry and wraule presently from the very first houre that he is borne into this world: in such sort, as among so many living creatures, there is none subiect to shed teares and weepe like him. And verily to no babe or infant is it given once to laugh before he be fortie daies old, and that is counted verie early and with the soonest. Moreover, so soone as he is entred in this manner to enioy the light of the sunne, see how he is immediatly tyed and bound fast, and hath no member at libertie; a thing that is not practised upon the young whelpes of any beast among us, be he never so wild. The child of man thus untowardly borne, and who another day is to rule and commaund all other, loe how he lyeth bound hand and foot, weeping and crying, and beginning his life with miserie, as if he were to make amends and satisfaction by his punishment unto Nature, for this onely fault and trespasse, that he is borne alive. O follie of all follies, ever to thinke (considering this simple beginning of ours) that we were sent into this world to live in pride and carrie our head aloft! The first hope that wee conceive of our strength, the first gift that Time affourdeth us, maketh us no better yet than four-footed beasts. How long is it ere we can goe alone? how long before we can prattle and speake, feed our selves, and chew our meat strongly? what a while continueth the mould and crowne of our heads to beat and pant, before our braine is well setled; the undoubted marke and token that bewrayeth our exceeding great weakenesse above all other creatures? What should I say of the infirmities and sicknesses that soone seaze upon our feeble bodies? what need I speake of so many medicines and remedies devised against these maladies: besides the new diseases that come everie day, able to checke and frustrate all our provision of Physicke whatsoever? As for all other living creatures, there is not one, but by a secret instinct of nature knoweth his owne good, and whereto he is made able: some make use of their swift feet, others of their flight wings: some are strong of limme; others are apt to swimme, and practise the same: man onely knoweth nothing unlesse hee be taught; he can neither speake, nor goe, nor eat, otherwise than he is trained to it: and to be short, apt and good at nothing he is naturally, but to pule and crie. And hereupon it is, that some have been of this opinion,

A *opinion, That better it had been, and simply best for a man, never to have been borne, or else speedily to die. None but we doe sorrow and waile, none but we are given to excesse and superfluitie infinitely in every thing, and shew the same in every member that we have. Who but we againe are ambitious and vainglorious? who but we are covetous and greedie of gathering good? wee and none but we desire to live long and never to die, are superstitious, carefull of our sepulture and buriall, yea, and what shall betide us when we are gone. Mans life is most fraile of all others, and in least securitie he liveth: no creature lusteth more after every thing than he: none feareth like unto him, and is more troubled and amazed in his fright: and if he be set once upon anger, none more raging and wood than he. To conclude, all other living creatures live orderly and well, after their owne kind: we see them flocke and gather together, and readie to make head and stand against all others of a contrarie kind: the lyons as fell*
B *and savage as they be, fight not one with another: serpents sting not serpents, nor bite one another*
3 *with their venimous teeth: nay the verie monsters and huge fishes of the sea, warre not amongst themselves in their owne kind: but beleeve me, Man at mans hand receiveth most harme and mischiefe.*

Chap. I.

The straunge and wondrous shapes of sundrie nations.

IN our Cosmographie and reports of nations and countreys, wee have spoken in generall of all mankind, spred over the face of the whole earth: neither is it
C our purpose at this present to decipher particularly all their customes and manners of life, which were a difficult enterprise, considering how infinit they be, and as many in manner as there be societies and assemblies of men. Howbeit I think it good, not to over-passe all, but to make relation of some things concerning those people especially, who live fartheſt remote from our seas; among whome, I doubt not but I shall find such matter, as to most men will seeme both prodigious and incredible. And verily, who ever beleeved that the Æthiopians had been so blacke, before he saw them with his eye: nay what is it, I pray you, that seemeth not a wonder at the first sight? How many things are judged impossible before they are seene done and effected? And certes, to speake a
4 truth, The power and majestie of Nature, in every particular action of hers and small things, see-
5 meth incredible, if a man consider the same severally, and enter not into a generall conceit of her
D wholly as she is. For to say nothing of the painted peacocks feathers, of the sundrie spots of ty-
2 gres, luzernes, and panthars, of the variable colours and markes of so many creatures besides: let us come to one only point, which to speake of seemeth but small, but being deeply weighed and considered, is a matter of exceeding great regard, and that is, The varietie of mens speech; so many tongues and divers languages are amongst them in the world, that one straunger to another seemeth well-neere to be no man at all. But come to view and marke the varietie that appeareth in our face and visage, albeit there be not past ten parts or litle more therein, see how among so many thousands as we are, you shall not find any two persons, who are not distinct in countenance and different one from another: a thing that no artificer nor painter (be he never so cunning and his craftsmaster every way) can perform, but in a few pictures, and take what heed
E he can with all his curious affectation. And yet thus much must I advertise the readers of this mine historie by the way, that I will not pawne my credit for many things that herein I shall deliver, nor bind them to beleeve all I write as touching straunge and forrein nations: referre them rather I will to mine authors, whome in all points (more doubtfull than the rest) I will cite and alledge, whom they may beleeve if they list: only let them not thinke much to follow the Greeke writers, who from time to time in this behalfe have been more diligent in penning, and more curious in searching after antiquities.

Chap. II.

Of the Scythians, and the diversitie of other nations.

F THat there bee Scythians, yea, and many kinds of them that feed ordinarily of mans flesh, wee have shewed alreadie in our former discourses. A report haply that would bee thought incredible, if wee did not consider and thinke withall, how in the very middle and heart of the world, even in Sicilie and Italie, here hard by, there have beene such monsters of men,

men, namely, the Cyclopes and Lystrigones: nay, if wee were not credibly enformed, that even G
of late daies, and goe no farther than to the other side of the Alpes, there be those that kill men for sacrifice after the maner of those Scythian people; and that wants not much of chewing and eating their flesh. Moreover, neere unto those Scythians that inhabite toward the pole Articke, and not farre from that climate which is under the very rising of the Northeast wind, and about that famous cave or hole out of which that wind is said to issue, which place they call Ges-clithron, [*i.* the cloisture or key of the earth] the Arimaspians by report doe dwell, who as wee have said before, are knowne by this marke, for having one eie onely in the mids of their forehead: and these maintaine warre ordinarily about the mettall mines of gold, especially with griffons, a kind of wild beasts that flie, and use to fetch gold out of the veines of those mines (as commonly it is received:) which savage beasts (as many authors have recorded, and namely *Herodotus* and *Aristeas* the Proconnesian, two writers of greatest name) strive as eagerly to keepe and hold those H
golden mines, as the Arimaspians to dissеize them thereof, and to get away the gold from them. Above those, are other Scythians called Anthropophagi, where is a country named Abarimon, within a certaine vale of the mountaine Imaus, wherein are found savage and wild men, living and conversing usually among the brute beasts, who have their feet growing backward, and turned behind the calves of their legs, howbeit they run most swiftly. These kind of men can endure to live in no other aire nor in any other clime els than their owne, which is the reason that they cannot be drawne to come unto other kings that border upon them, nor could be brought unto *Alexander* the great: as *Beton* hath reported, the marshall of that princes camp, and who also put
downe his geasts and journies in writing. The former Anthropophagi or eaters of mans flesh I
whom we have placed about the North pole, tenne daies journey by land above the river Borysthenes, use to drinke out of the sculs of mens heads, and to weare the scalpes, haire and all, in steed of mandellions or stomachers before their breasts, according as *Isegonus* the Nicean witnesseth. The same writer affirmeth moreover, That in Albanie there bee a sort of people borne with eies like owles, whereof the sight is fire red: who from their childhood are grey headed, and can see better by night than day. He reporteth also, that tenne daies journie beyond Borysthenes, the Sauromates never eat but one meale of meat in three daies. *Crates* of Pergamus saith, That in Hellespont about Parium there was a kind of men (whom he nameth Ophiogenes) that if one were stung with a serpent, with touching onely, will ease the paine: and if they doe but lay their
hands upon the wound, are wont to draw forth all the venome out of the bodie. And *Varro* testifi- K
eth, that even at this day there be some there who warish and cure the stinging of serpents with their spittle, but there are but few such as he saith. *Agatharcides* writeth, that in Affricke the Psyllians (so called of king *Psyllus*, from whose race they were descended, and whose sepulchre or tombe is at this day present to bee seene in a part of the greater Syrtes) could doe the like. These men had naturally that in their owne bodies, which like a deadly bane and poyson would kill all serpents: for the very aire and sent that breathed from them, was able to stupifie and strike them starke dead. And by this meanes they used to trie the chastitie and honestie of their wives. For so soone as they were delivered of children, their manner was to expose and present the silie babes newborne, unto the most fell and cruell serpents they could find: for if they were not right but
gotten in adultery, the said serpents would not avoid & flie from them. This nation verily in gene- L
rall hath ben defeated, & killed up in manner all, by the Nasamones, who now inhabit those parts wherein they dwelt: howbeit, a kind remaineth still of them, descended from those that made shift away and fled, or else were not present at the said bloudie battell, but there are very few of them at this day left. The Marsians in Italie at this present continue with the like naturall vertue against serpents: whom being reputed for to have descended from ladie *Circes* sonne, the people in this regard doe highly esteeme, and are verily perswaded, that they have in them the same faculтie by kind. And what great wonder is this, considering that all men carrie about them that which is poyson to serpents: for if it be true that is reported, they will no better abide the touching with mans spittle, than scalding water cast upon them: but if it happen to light within their chawes, or
get into their mouth, especially if it come from a man that is fasting, it is present death. Beyond M
those Nasamones, and their neighbours confining upon them (the Machlyes) there bee found ordinarily Hermaphrodites, called Androgyni, of a double nature, and resembling both sexes, male and female, who have carnall knowledge one of another interchangeably by turns, as *Callisphanes* doth report. *Aristotle* saith moreover, that on the right side of their breast they have a lit-

tle

A ttle teat or nipple like a man, but on the left ſide they have a full pap, or dug like a woman. In the ſame Affricke, both *Iſogonus* and *Nymphodorus* doe avouch, there be certain houſes and families of ſorcerers: who, if they chance to bleſſe, praiſe, and ſpeak good words, bewitch preſently withall; inſomuch as ſheepe therewith die, trees wither, and infants pine and winder away. *Iſogonus* addeth furthermore, That ſuch like there are among the Triballians and Illyrians, who with their very eieſight can witch, yea, and kill thoſe whom they looke wiſtly upon any long time, eſpecially if they be angred, and that their eies bewray their anger: and more ſubject to this daunger bee men growne, than children under foureteene yeeres of age. This alſo is in them more notable and to be obſerved, that in either eie they have two ſights or apples. Of this kind and propertie, as *Apollonides* mine authour ſaith, there be certain women in Scythia named Bithyæ. *Philarchus*
B witneſſeth, That in Pontus alſo the whole race of the Thibians, and many others beſides, have the ſame qualitie, and can do the like: & known they are (ſaith he) by theſe markes, In one of their eies they have two ſights, in the other the print or reſemblance of an horſe. Hee reporteth beſides of theſe kind of men, that they will never ſink or drown in the water, be they charged never ſomuch with weightie & heavie apparel. Not unlike to theſe there are a ſort of people in Æthyopia called Pharnaces, whoſe ſweat if it chaunce to touch a mans bodie, preſently he falleth into a phthiſick or conſumption of the lungs. And *Cicero* a Romane writer here among us teſtifieth, that generally all women that have ſuch double apples in their eies, have a venomous ſight, and doe hurt therewith. See how Nature, having engraffed naturally in ſome men this unkind appetite (like wild beaſts) to feed commonly upon the bowels and fleſh of men, hath taken delight alſo & pleaſure to give them inbred poyſons in their whole bodie, yea, and venome in the very eies of ſome;
C that there ſhould be no naughtineſſe in the whole world againe, but the ſame might be found in man. Not farre from Rome cittie, within the territorie of the Faliſci, there bee ſome few houſes and families called Hirpix, which at their ſolemne yeerely ſacrifice celebrated by them in the honour of *Apollo* upon the mount Soracte, walke upon the pile of wood as it is on fire, in great jolitie, and never a whit are burnt withall. For which cauſe ordained it is by an expreſſe areſt or act of the Senate, that they ſhould be priviledged, and have immunitie of warfare and all other ſervices whatſoever. Some men there bee that have certaine members and parts of their bodies naturally working ſtraunge and miraculous effects, and in ſome caſes medicinable. As for exam-
D ple, king *Pyrrhus*, whoſe great toa of his right foot was good for them that had big, ſwelled, or indurate ſplenes, if he did but touch the parties diſeaſed, with that toa. And they ſay moreover, that when all the reſt of his bodie was burned (after the manner) in the funerall fire, that great toa the fire had no power to conſume: ſo, that it was beſtowed in a little caſe for the nones, and hung up in the temple for an holy relique. But principally above all other countries, India and the whole tract of Æthyopia is full of theſe ſtraunge and miraculous things. And firſt and formoſt, the beaſts bred in India be exceeding big, as it may appeare by their dogs, which for proportion are much greater than thoſe in other parts. And trees be growing there to that talneſſe, that a man cannot ſhoot a ſhaft over them. The reaſon hereof is the goodneſſe and fatneſſe of the ground, the temperate conſtitution of the aire, and the abundance of water: which is the cauſe alſo that under one fig tree [beleeve it that liſt] there may certaine troupes and ſquadrons of horſemen
E ſtand in covert, ſhaded with the boughs. And as for reeds, they be of ſuch a length, that between every joint they will yeeld ſufficient to make boats able to receive three men apeece, for to row therein at eaſe. There are to bee ſeene many men there above five cubites tall: never are they known once to ſpit: troubled they are not with paine in the head, toothach, or greeſe of the eies; and ſeldome or never complaine they of any ſorance in other parts of the bodie, ſo hardie are they, and of ſo ſtrong a conſtitution through the moderate heat of the Sunne. Over and beſides, among the Indians be certaine Philoſophers, whom they call Gymnoſophiſts, who from Sunne riſing to the ſetting thereof are able to endure all the day long, looking full againſt the Sunne, without winking or once moving their eies: & from morning to night can abide to ſtand ſometimes upon one leg, and ſometimes upon the other in the ſand, as ſcalding hot as it is. Vpon a
F certaine mountaine named Milus, there be men whoſe feet grow the tother way backward, and of either foot they have eight toes, as *Megaſthenes* doth report. And in many other hils of that countrey, there is a kind of men with heads like dogs, clad all over with the skins of wild beaſts, who in lieu of ſpeech uſe to barke: armed they are and well appointed with ſharpe and trenchant nailes: they live upon the prey which they get by chaſing wild beaſts, and fowling. *Cteſias* writeth

that

that there were discovered and knowne of them above 120000 in number. By whose report also, G
in a certaine countrey of India the women beare but once in their life, and their infants presently waxe grey so soone as they are borne into the world. Likewise, that there is a kind of people named Monoscelli, that have but one leg apeece, but they are most nimble, and hop wonderous swiftly. The same men are also called Sciopodes, for that in hotest season of the Summer, they lie along on their backe, and defend themselves with their feet against the Sunnes heat: and these people as he saith are not farre from the Troglodites. Againe, beyond these Westward, some there bee without heads standing upon their neckes, who carrie eies in their shoulders. Among the Westerne mountaines of India the Satyres haunt, (the countrey wherein they are, is called the region of the Cartaduli) creatures of all other most swift in footmanship: which one whiles run with all foure; otherwhiles upon two feet onely like men: but so light-footed they are, that H
unlesse they be very old or sicke, they can never bee taken. *Tauron* writeth, That the Choromandæ are a savage and wild people: distinct voice and speech they have none, but in steed thereof, they keepe an horrible gnashing and hideous noise: rough they are and hairie all over their bodies, eies they have red like the houlets, and toothed they be like dogs. *Eudoxus* saith, That in the Southerne parts of India, the men kind have feet a cubite long, but the women so short & small, that thereupon they be called Struthopodes, *i.* sparrow footed. *Megasthenes* is mine author, that among the Indian Nomades there is a kind of people, that in steed of noses have only two small holes, and after the manner of snakes have their legs and feet limmer, wherewith they crawle and creepe, and named they are Syrictæ. In the utmost marches of India, Eastward, about the source & head of the river Ganges, there is a nation called the Astomes, for that they have no mouths: I
all hairie over the whole bodie, yet clothed with the soft cotton and downe that come from the leaves of trees: they live onely by the aire, and smelling to sweet odours, which they draw in at their nosethrils: No meat nor drinke they take, onely pleasant savours from divers and sundrie roots, floures, and wild fruits growing in the woods they entertaine: and those they use to carrie about with them when they take any farre journey, because they would not misse their smelling. And yet if the sent be any thing strong and stinking, they are soone therewith overcome, and die withall. Higher in the countrey, and above these, even in the edge and skirts of the mountaines, the Pygmæi Spythamei are reported to bee: called they are so, for that they are but a *cubite or three *shaftments (or spannes) high, that is to say, three times nine inches. The clime wherin they dwell is very holesome, the aire healthie, and ever like to the temperature of the Spring: by reason that the mountaines are on the North side of them, and beare off all cold blasts. And these K
pretie people *Homer* also hath reported to be much troubled and annoied by cranes. The speech goeth, that in the Spring time they set out all of them in battell array, mounted upon the backe of rammes and goats, armed with bowes and arrowes, and so downe to the sea side they march, where they make foule worke among the egges and young cranelings newly hatched, which they destroy without all pitie. Thus for three moneths this their journey and expedition continueth, and then they make an end of their valiant service: for otherwise if they should continue any longer, they were never able to withstand the new flights of this foule, growne to some strength and bignesse. As for their houses and cottages, made they are of clay or mud, fouls feathers, and birds egge shels. Howbeit, *Aristotle* writeth, That these Pygmæans live in hollow caves & holes L
under the ground. For all other matters he reporteth the same that all the rest. *Isogonus* saith, that certaine Indians named Cyrni, live a hundred and fortie yeeres. The like he thinketh of the Æthyopian Macrobij, and the Seres: as also of them that dwel upon the mount Athos: and of these last rehearsed, the reason verily is rendered to be thus, because they feed of vipers flesh, and therfore is it that neither lice breed in their heads, nor other vermine in their cloths, for to hurt and annoy their bodies. *Onesicritus* affirmeth, That in those parts of India where there are no shaddowes to be seene, the men are five cubites of stature, and two hand breadths over: that they live 130 yeeres: and never age for all that and seeme old, but die then, as if they were in their middle and settled age. *Crates* of Pergamus nameth those Indians who live above an hundred yeere, Gymnetes: but others there be, and those not a few, that call them Macrobij. *Ctesias* saith there M
is a race or kindred of the Indians named Pandore, inhabiting certain vallies, who live two hundred yeeres: in their youthfull time the haire of their head is white, but as they grow to age, waxeth blacke. Contrariwise, others there be neere neighbours to the Macrobij, who exceed not fortie yeeres, and their women beare but once in their life time. And this also is avouched by *Agatharcides*,

* πυγμαῖος
* ἀπὸ σπιθαμῆς.

A *tharcides*, who affirmeth moreover, that all their feeding is upon locusts, and that they are very quicke and swift of foot. *Clitarchus* and *Megasthenes* both nameth them Mandri, and make account that they have three hundred villages in their countrey. Over and besides, that the women bring forth children when they are but seven yeeres old, and waxe aged at fortie. *Artemidorus* affirmeth, That in the Island Taprobana the people live exceeding long without any maladie or infirmitie of the bodie. *Duris* maketh report, That certaine Indians engender with beasts, of which generation are bred certaine monstrous mungrels, halfe beasts and halfe men. Also, that the Calingian women of India conceive with child at five yeeres of age, & live not above eight. In another tract of that countrey, there be certaine men with long shagged tailes most swift and light of foot: & some again that with their eares cover their whole bodie. The Orites are neigh-
B bours to the Indians, divided from them onely by the river Arbis, who are acquainted with no other meat but fish: which they split and slice into peeces with their nailes, and rost them against the Sunne, and then make bread thereof as *Clitarchus* makes report. *Crates* of Pergamus saith likewise, That the Troglodites above Æthyopia be swifter than horses: and that some Æthyopians are above eight cubites high. And these are a kind of the Æthyopian Nomades, called Syrbotæ, as he saith, dwelling along the river Astapus, toward the North pole. As for the nation called Menismini, they dwell from the Ocean sea twentie daies journey, who live of the milk of certaine beasts that we call Cynocephales, having heads and snouts like dogs. And whole heards and flockes of the females they keepe and feed, killing the male of them all, save only to serve for maintenance of the breed. In the deserts of Affricke yee shall meet oftentimes with fairies, ap-
C pearing in the shape of men and women, but they vanish soone away like fantasticall illusions. See how Nature is disposed for the nones to devise full wittily in this and such like passimes to play with mankind, thereby not onely to make her selfe merrie, but to set us a wondering at such strange miracles. And I assure you, thus daily and hourly in a manner plaieth she her part, that to recount every one of her sports by themselves, no man is able, with all his wit and memorie. Let it suffice therefore, to testifie and declare her power, that wee have set downe those prodigious and strange workes of hers, shewed in whole nations. And then goe forward to discourse of some particulars, approved and knowne in man.

Chap. III.

D

& Of prodigious and monstrous births.

That women may bring forth three at one birth, appeareth evidently by the example of the three twins, *Horatij* and *Curiatij*. But to goe above that number, is reputed & commonly spoken to bee monstrous, and to portend some mishap: but onely in Ægypt, where women are more than ordinarie fruitfull, by drinking of Nilus water, which is supposed to helpe generation. Of late yeeres, and no longer since than in the latter end of the reigne of *Augustus Cæsar*, at Ostia there was a woman (a Commoners wife) delivered at one birth of two boies and as many girles, but this was a prodigious token, and portended no doubt the famine that ensued soone after. In Peloponnesus there is found one woman that brought forth at foure births twen-
E tie children, five at once, and the greater part of them all did well, and lived. *Trogus* is mine author, that in Ægypt it is an ordinarie thing for a woman to have seven at a burden. It falleth out moreover, that there come into the world children of both sexes, whom we call Hermophrodites. In old time they were knowne by the name of Androgyni, and reputed then for prodigious wonders, howsoever now men take delight and pleasure in them. *Pompey* the great, in his Theatre which he adorned and beautified with singular ornaments and rare devises of antique worke, as well for the admirable subject and argument thereof, as the most curious and exquisite hand of cunning and skilfull artificers, among other images and pourtraicts there set up, represented one *Eutiche*, a woman of Tralleis, who after she had in her life time borne thirtie births, her corps was
F carried forth by twentie of her children to the funerall fire for to bee burnt, according to the maner of that country. As for *Aleippe*, she was delivered of an Elephant, marie that was a monstrous and prodigious token, & foreshewed some heavie fortune that followed after. As also in the beginning of the Marsians warre, there was a bondwoman brought forth a serpent. In summe, there be many mishapen monsters come that way into the world, of divers and sundrie formes. *Claudius Cæsar* writeth, That in Thessalie there was borne a monster called an Hippocentaur, *i.* halfe

a man and halfe a horse: but it died the very same day. And verily, after he was come to wear the diademe, wee our selves saw the like monster, sent unto him out of Ægypt, embaulmed and preserved in honie. Among many strange examples appearing upon record in Chronicles, we read of a child in Sagunt, that very yeere that it was forced and rased by *Annibal*, which, so soone as it was come forth of the mothers wombe, presently returned into it againe. G

Chap. iiii.

Of the chaunge from one sex to another: and of twins borne.

IT is no lie nor fable, that females may turne to be males. For we have found it recorded in the yeerely Chronicles called Annales, that in the yeere when *Pub. Licinius Crassus*, and *C. Cassius Longinus* were Consuls of Rome, there was in Cassinum a maid child, under the very hand & tuition of her parents, without suspition of being a changeling, became a boy: and by an ordinance of the Southsaiers called Aruspices, was confined to a certaine desert Island, and thither conveighed. *Licinius Mutianus* reporteth, That himselfe saw at Argos one named *Arescon*, who beforetime had to name *Arescusa*, and a married wife: but afterwards in processe of time, came to have a beard, and the genetall parts testifying a man, and therupon wedded a wife. After the same sort he saw (as he saith) at Smyrna, a boy changed into a girle. I my selfeam an eie-witnesse, That in Affricke one *L. Cossicius*, a citizen of Tisdrita, turned from a woman to bee a man, upon the very mariage day: and lived at the time that I wrote this booke. Moreover, this is observed, that if a woman bring twins, it is great good hap if they all live, but either the mother dieth in child bed, or one of the babes, if not both. But if it fortune that the twins be of both sexes, the one male, the other female, it is ten to one if both of them escape. Moreover, this is well known, that as women age sooner than men, and seeme old: so they grow to their maturitie more timely than men, and are apt for procreation before them. Last of all, when a woman goeth with child, if it be a man child, it stirreth oftener in the wombe, and lieth commonly more to the right side: whereas the female moveth more seldome, and beareth to the left. H I

Chap. v.

Of the generation of man: the time of child birth from seven months to eleven, testified by many notable examples out of histories. K

ALL other living creatures have a set time limitted by Nature, both of going with their young, and also of bringing it forth, each one according to their kind. Man onely is borne at all times of the yeere: and there is no certain time of his abode in the wombe, after conception. For one commeth into the world at the seventh months end, another at the eight, and so to the beginning of the ninth and tenth. But before the seventh month, there is no infant ever borne that liveth. And none are borne at seven months end, unlesse they were conceived either in the very chaunge of the moone, or within a day of it under or over. An ordinarie thing it is in Ægypt for women to goe with young eight months, and then to be delivered. And even in Italie also now adaies, children so borne, live and doe well: but this is against the common received opinion of all old writers. But there is no certainetie for to ground upon in all these cases, for they alter divers waies. Dame *Vestilia* (the widdow of *C. Herditius*, wife afterwards of *Pomponius*, and last of all, maried to *Orfitus*; all right worshipfull cittizens, and of most noble houses) had foure children by her three husbands, to wit, *Sempronius*, whom she bare at the seventh month; *Suillius Rufus* at the eleventh; with *Corbulo* likewise shee went seven months, yet they lived all: and these two last, came both to be Consuls. After all these sonnes, she brought forth a daughter, namely, *Cæsonia*, wife to the Emperour *Caius* (*Caligula*) at the eight months end. They that are borne thus in this month, have much adoe to live, and are in great daunger for fortie daies space. Yea, and their mothers are very sickly, and subject to fall into untimely travell all the fourth moneth and the eight: and if they fall to labour, and come before their time, they die for it. *Masurius* writeth, That *L. Papyrius* the Pretour or lord cheefe justice, when a second heire in remainder made claime, and put in plea for his inheritance of the goods, made an award, and gave judgement against him, in the behalfe of an infant the right heire, borne after the decease of his father: upon this, that the mother came in and testified how shee was delivered of that child, within thirteene L M

months

A months after the death of the testator: the reason was, because there is no definite time knowne nor set downe for women to goe with child.

Chap. VI.

Of Conceptions: and signes distinguishing the sex in great bellied women, before they are delivered.

IF tenne daies after that a woman hath had the companie of a man, she feele an extraordinarie ach in the head, and perceive giddinesse in the braine, seeming that all things went round; find a dazeling and mistinesse in the eies, abhorring and lothing of meat, and withall, a turning
B and wambling of the stomacke: it is a signe that she is conceived, and beginneth to breed. If she goe with a boy, better coloured will she be all the time, and delivered with more ease: and by the fortieth day she shall feele a kind of motion and stirring in her wombe. But contrariwise it falleth out in the breeding of a girle: shee goeth more heavily with it, and findeth the burden heavier, her legs and thighes about the share will swell a little. And ninetie daies it will be before shee perceive any moving of the infant. But bee it male or female that shee breeds, they put her to much paine and greevance when their haire beginneth to bud forth, and ever at the full of the moone: and even the very infants after they are borne, are most amisse and fartheſt out of frame about that time. And verily, great regard must be had of a woman with child all the while that shee goeth therewith, both in her gate, and in every thing els that can be named. For if women feed usu-
C ally upon over-salt and powdered meat, they will bring forth a child without nailes: and if they hold not their wind in their labour, longer it will be ere they be delivered, and with more difficultie. Much yawning in the time of travell is a deadly signe: like as to sneese presently upon conception, threateneth abortion, or a slip.

Chap. VII.

Of the conception and generation of man.

I Am abashed much, and very sorrie to think and consider what a poore and tickliſh beginning man hath, the prowdest creature of all others: when the smell onely of the snuffe of a candle
D put out, is the cause oftentimes that a woman falleth into untimely travell. And yet see, these great tyrants, and such as delight onely in carnage & bloudshead, have no better originall. Thou then that presumest upon thy bodily strength, thou that standest so much upon fortunes favors and hast thy hands full of her bountiful gifts, taking thy selfe not to be a foster child and nourceling of hers, but her naturall sonne born of her own bodie: thou, I say, that busiest thy head evermore, and settest thy mind upon conquests and victories: thou that art upon every good successe and pleasant gale of prosperitie puffed up with pride, and takest thy selfe for a god, never thinkest that thy life, when it was hung upon so single a thred, with so small a matter might have miscaried. Nay more than that, even at this day in more daunger art thou than so, if thou chance to be but stung or bitten with the little tooth of a serpent: or if no more but the very kernell of a
E raisin goe downe thy throte wrong, as it did with the poët *Anacreon*, which cost him his life. Or, as *Fabius* a Senatour of Rome, and lord cheefe justice besides, who in a draught of milke fortuned to swallow a small haire, and was strangled withall. Well then, think better of this point. For he verily that will evermore set before his eies, and remember the frailetie of mans estate, shall live in this world uprightly and in even ballance, without enclining more to one side, than unto another.

Chap. VIII.

Of those that be called Agrippæ.

F TO be borne with the feet forward, is unnaturall and unkind. And such as come in that order into the world, the Latines were wont to name Agrippæ, as if a man should say, Born hardly and with much adoe. And in this manner *M. Agrippa* (as they say) came forth of his mothers wombe: the only man almost that is knowne to have brought any good fortune with him, and prospered in the world, of all that ever were in that sort borne. And yet as happie as hee was,

and how well soever he chieved in some respects, hee was much pained with the gout, and passed G
all his youth and many a day after in bloudie warres, and in daunger of a thousand deaths. And
when he had escaped all these harmeful perils, unfortunate he was in all his children, and espe-
cially in his two daughters the *Agrippinæ* both: who brought forth those unhappie impes so perni-
cious to the whole earth, namely, *C. Caligula* and *Domitius Nero*, two Emperours, that is to say,
two fierie flames for to consume and wast all mankind. Over and besides, his infelicitie herein ap-
peared, that he lived so small a time, dying as he did a strong and lustie man, in the one and fiftie
yeere of his age, tormented and vexed with the adulteries of his owne wife: oppressed with the
heavie & intollerable servitude that he was in under his wives father. In which regards it seemeth
he paid full deere for the præsage of his untoward birth and nativitie. Moreover, *Agrippina* hath
left in writing, That her sonne *Nero* also, late Emperour, who all the time of his reigne was a H
verie enemie to all mankind, was borne with his feet forward. And in truth by the right order
and course of Nature, a man is brought into the world with his head first, but it carried forth
with his feet formost.

Chap. IX.

Births cut out of the wombe.

BVt more fortunate are they a great deale, whose birth costeth their mothers life, and part
from their mothers by meanes of incision: like as *Scipio Africanus* the former, who came
into the world in that wise: and the first that ever was surnamed *Cæsar*, so called because hee I
was ript out of his mothers bellie. And hereof commeth the fore-name also of the *Cæsones*. In
like manner also was that *Manlius* borne, who entred Carthage with an armie.

Chap. X.

Who are Vopisci.

*Opiscus rather. THe Latines were wont to call him * Vopiscus, who being one of two twinnes happened to
stay behind in the wombe the full tearme, when the other miscarried before by abortive
and untimely birth. And in this case there chaunce right straunge and wonderfull acci-
dents, although they fall out but very seldome. K

Chap. XI.

Examples of many infants at one birth.

FEw creatures there be but women again, that seeke after the male and can skill of their com-
panie, after they be once conceived with young: one kind verily or two at the most there is,
knowne to conceive double one upon the other. We find in bookes written by Physicians,
and in their records who have studied such matters and gathered observations, that there have
passed or been cast away from a woman at one onely slip, 12 distinct children: but when it falleth
out that there is some prettie time betweene two conceptions, both of them may tarrie their I
complete time, and be borne with life: as it appeared in *Hercules* and his brother *Iphiclus*: as al-
so in that harlot who was delivered of two infants, the one like her owne husband, the other re-
sembling the adulterer: likewise in a Proconnesian bond-servant, who was in one day gotten
with child, to wit, by her master, and his baily or procurator: and being afterwards delivered of
two children, they bewraied plainly who were their fathers. Moreover, there was another who
went her full time, even nine moneths for one child, but was delivered of another at the five
moneths end. Furthermore in one other, who having dropped downe one child at the end of
seven moneths, by the end of the ninth came with two twinnes more. Over and besides it is
commonly seene, that children be not alwaies answerable to the parents in every respect: for of
perfect fathers and mothers who have all their limmes, there are begotten children imperfect M
and wanting some members: and contrariwise, parents there are maimed and defective in some
part, who nevertheles ingender children that are sound and entire, and with all that they should
have. It is seene also, that infants are at a default of such parts as their parents misse: yea and they
carrie often-times certaine markes, moles, blemishes, and skarres, of their fathers and mothers,

as

A as like as may be. Among the people called Dakes, the children uſually carrie the markes imprinted in their armes, of them from whome they are deſcended, even to the fourth generation.

Chap. xii.

Examples of many that have been very like and reſembled one another.

IN the raſe and familie of the *Lepidi*, it is ſaid there were three of them (not ſucceſſively one after another, but out of order after ſome intermiſſion) who had everie one of them when they were borne, a little pannicle or thinne skinne growing over the eye. Some have beene
B knowne to reſemble their grandſires: and of two twinnes, one hath been like the father, the other the mother: but hee that was borne a yeere after, hath beene ſo like his elder brother, as if hee had beene one of the twinnes. Some women there bee that bring all their children like to themſelves: and others againe, as like to their husbands: and ſome like neither the one nor the other. Yee ſhall have women bring all their daughters like to their fathers, and contrariwiſe, their ſonnes like the mothers. The example is notable, and yet undoubted true, of one *Nicæus*, a famous wreſtler of Conſtantinople, who having to his mother a woman begotten in adulterie by an Æthyopian, and yet with white skin, nothing different from other women of that countrey, was himſelfe blacke, and reſembled his grandſire, the Æthyopian aboveſaid. Certes, the cogitations and diſcourſes of the mind make much for theſe ſimilitudes
C and reſemblances whereof wee ſpeake: and ſo likewiſe many other accidents and occurrent objects, are thought to bee very ſtrong and effectuall therein, whether they come by ſight, hearing, and calling to remembrance; or imaginations onely conceived, and deepely apprehended in the very act of generation, or the inſtant of conception. The wandering cogitation alſo and quicke ſpirit either of father or mother, flying too and fro all on a ſuddaine, from one thing to another, at the ſame time, is ſuppoſed to bee one cauſe of this impreſſion, that maketh either the foreſaid uniforme likeneſſe, or confuſion and varietie. And hereupon it commeth, and no marvell it is, that men are more unlike one another, than other creatures: For the nimble motions of the ſpirit, the quicke thoughts, the agilitie of the mind, the varietie of diſcourſe in our wits, imprinteth diverſe formes, and many markes of ſundrie cogitations.
D Whereas the imaginate facultie of other living creatures, is unmoveaable, and alwaies continueth in one: in all it is alike, and the ſame ſtill in every one, which cauſeth them alwaies to engender like to themſelves, each one in their ſeverall kind. *Artenon* a meane man among the Commons, was ſo like in all points to *Antiochus* king of Syria, that *Laodicea* the queene, after that *Antiochus* her husband was killed, ſerved her owne turne by the ſaid *Artenon*, and made him play the part of *Antiochus*, untill ſhee had by his meanes, as in the kings perſon, recommended whom ſhee would, and made over the kingdome and crowne in ſucceſſion and reverſion to whom ſhee thought good. *Vibius* a poore Commoner of Rome, and *Publicius*, one newly of a bondſlave made a free man, were both of them ſo like unto *Pompeius* the great, that unneth or hardly the one could bee diſcerned from the other: ſo lively did they repreſent that
E good viſage of his ſo full of honeſtie, ſo fully expreſſed they and reſembled the ſingular majeſtie of that countenance, which appeared in *Pompeius* his forehead. The like cauſe it was that gave his father alſo the ſurname of *Menogenes*, his cooke, albeit hee was ſurnamed alreadie *Strabo*, for his ſquint eies: but hee would needs beare the name of a defect and infirmitie even in his bonſervant for the love hee had unto him, by reaſon of his likeneſſe. So was one of the *Scipioes* alſo ſurnamed *Serapius* upon ſuch an occaſion, after the name of one *Serapia*, who was but a baſe ſlave of his, and no better than his ſwine-heard, or dealer in buying and ſelling his ſwine. Another *Scipio* after him, of the ſame houſe, came to bee ſurnamed *Salutio*, becauſe a certaine jeſter of that name was ſo like unto him. After the ſame manner one *Spinter*, a plaier of the ſecond place or part, and *Pamphilus* another plaier of the third part, or in the third
F place, gave their names to *Lentulus* and *Metellus*, who both were Conſuls together in one yeere, for that they reſembled them ſo truly. And certes, mee thinkes this fell out very untowardly, and was but a ridiculous pageant, and a very unſeemely ſhew upon a ſtage, to ſee both Conſuls lively repreſented there at once in the perſons of theſe two plaiers. Contrariwiſe, *Rubrius* the ſtage-plaier was ſurnamed *Plancus*, becauſe hee was ſo like to *Plancus* the Oratour.

Againe, *Burbuleius* and *Menogenes*, both plaiers of Enterludes, resembled *Curio* the father or the elder, and *Messala Censorius*, for all he had been Censor, that the one could not shift & avoid the surname of *Burbuleius*, and the other of *Menogenes*. There was in Sicilie a certaine fisherman who resembled in all points *Sura* the pro-consull, not onely in visage and feature of the face, but also in mowing with his mouth when he spake, in drawing his tongue short, and in his huddle and thicke speech. *Cassius Severus* that famous Orator was reproched for being so like unto *Mirmillo* a drover or keeper of kine and oxen. *Toranius* a merchant slave-seller, sold unto *Marcus Antonius* (now one of the great Triumvirs) two most beautifull and sweet-faced boies, for twins, so like they were one to the other, albeit the one was borne in Asia, & the other beyond the Alpes. But when *Antonie* afterwards came to the knowledge thereof, and that this fraud and cousenage was bewraied and detected by the language and speech of the boies, he fell into a furious fit of choler, and all to berated the foresaid *Toranius*. And when among other challenges hee charged him with the high price that he made him pay (for they cost him two hundred Sesterces, as for twins, and they were none such) the wilie merchant that was his craftsmaster, answered, That it was the cause why he held them so deere and sold them at so great a rate: For (quoth hee) it is no marvell at all, if two brethren twins that lay both together in one bellie, doe resemble one the other; but that there should bee any found, borne as these were in diverse countries, so like in all respects as they, he held it for a most rare and wonderfull thing, and such a commoditie as could not be prised by a merchant to the worth. This answere of his was delivered in so good time, and so fitly to the purpose, that *Antonie* the great man, who never was well but when he outlawed cittizens of Rome, and did confiscate their goods, he I say that erewhile was all enraged and set upon reviling and reprochfull tearmes; was not onely appeased, but also contented so with his bargaine, that he made as great a reckoning of those two boies, as of any thing els that hee had in all that wealth of his.

Chap. xiii.

The cause and manner of generation.

Some bodies there be by a secret of Nature so disagreeing, that they are unfit for generation one with another. And yet as barren as they be themselves so coupled together, fruitful they are enough when they are joined with others. Such were *Augustus* the Emperor and his wife *Livia*. In like manner, some men there be as well as women, that can skill of getting and breeding none but daughters: and others there bee againe that are good at none but sonnes. And many times it falleth out that folke have sonnes and daughters both, but they by turns, this yeere a son and the next a daughter, in order. Thus [*Cornelia*] the mother of the *Gracchi*, who for twelve childbeds kept this course duly: and *Agrippina* the wife of *Cæsar Germanicus* for nine, ever changing from the male to the female. Some women are barren all their youth: and others againe beare but once in their whole life. Some never goe their full time with their children: & such women, if peradventure by the helpe of physicke and other good means, and choise-keeping, they overcome this infirmitie, bring daughters ordinarily, and no other. The Emperour *Augustus* among other singularities that he had by himselfe during his life, saw ere hee died the nephew of his neece, that is to say, his progenie to the fourth degree of lineall descent, and that was *Mar. Syllanus* who happened to be borne that very yeere when he departed out of this world. Hee having beene Consull, and afterward lord governour of Asia, was poysoned by prince *Nero*, to the end that hee might thereby attaine to the Empire. *Qu. Metellus Macedonicus*, left behind him sixe children, and by them eleven nephewes: but daughters in law, and sonnes in law, and of all such as called him father, seven. In the Chronicles of *Augustus Cæsar* his acts for his time, wee find upon record, that (in his twelfth Consulship, when *L. Sylla* was his companion and colleague in government, upon the eleventh day of Aprill) *C. Crispinus Helarus*, a gentleman of Fesulæ, came with a solemne pompe carried before him into the Capitoll, attended upon with his nine children, seven sonnes and two daughters; with seven and twentie nephewes, the sonnes of his children: and nine and twentie nephewes more, once removed, who were his sonnes nephewes, and twelve neeces besides, that were his childrens daughters, and with all these solemnly sacrificed.

A

Chap. xiiii.

☞ *Of the ſame matter more at large.*

A Woman commonly is paſt child-bearing after fiftie yeeres of her age. And for the moſt part their monthly tearmes ſtay at fortie. As for men, it is cleere and well known, that king *Maſiniſſa* when he was above foureſcore and ſixe yeeres old, begat a ſonne whom he called *Methymathmas*. And *Cato Cenſorius* that famous Cenſor begat another upon the daughter of *Salonius* his vaſſale, when he was paſt foureſcore yeers of age. And hereof it commeth, that the race which came of his other children, were ſurnamed *Liciniani*, but the off-ſpring of this laſt ſonne,
B *Salonini*, from whom *Cato Vticenſis* (who ſlew himſelfe at Vtica) is lineally deſcended. Moreover, it is not long ſince, that dame *Cornelia* of the houſe and linage of the *Scipioes*, bare unto *Lu. Saturninus* her husband (who died whiles he was Provoſt of the citie of Rome) a ſonne named *Voluſius Saturninus*, and who afterwards lived to bee Conſull, who was begotten when his father was threeſcore and two yeeres old with the better. To conclude, there have been among meaner perſons very many knowne to have gotten children after foureſcore and five.

Chap. xv.

☞ *Of womens monthly ſickneſſe.*

C OF all living creatures a woman hath a flux of bloud every moneth: and hereupon it is, that in her wombe onely there are found a falſe conception called Mola, *i.* a moone calfe, that is to ſay, a lumpe of fleſh without ſhape, without life, and ſo hard withall, that uneth a knife will enter and pierce it either with edge or point. Howbeit, a kind of moving it hath, & ſtaieth the courſe of her moneths: and ſometime after the manner of a child indeed, it coſteth the woman her life: otherwhiles it waxeth in her bellie as ſhee groweth, and ageth with her: now and then alſo it ſlippeth and falleth from her with a laske or looſenes of the guts. Such a thing breeds likewiſe in the bellies of men, upon the hardneſſe of liver or ſplene, which the Phyſicians call Scirrhus, *i.* an hard wedge & cake under their ſhort ribs. And ſuch an one had *Oppius Cato* a nobleman of Rome, late Pretour. But to come againe to women, hardly can there be found a thing
D more monſtrous than is that fluxe and courſe of theirs. For if during the time of this their ſickneſſe, they happen to approch or goe over a veſſell of wine, bee it never ſo new, it will preſently ſoure: if they touch any ſtanding corne in the field, it will wither and come to no good. Alſo, let them in this eſtate handle any graffes, they will die upon it: the hearbes and young buds in a garden if they doe but paſſe by, will catch a blaſt, and burne away to nothing. Sit they upon or under trees whiles they are in this caſe, the fruit which hangeth upon them will fall. Doe they but ſee themſelves in a looking glaſſe, the cleare brightneſſe therof turneth into dimneſſe, upon their very ſight. Look they upon a ſword, knife, or any edged toole, be it never ſo bright, it waxeth duskiſh, ſo doth alſo the lively hue of yvorie. The very bees in the hive die. Yron and ſteele preſently take ruſt, yea, and braſſe likewiſe, with a filthie, ſtrong, and poyſoned ſtinke, if they lay but hand
E thereupon. If dogs chance to taſt of womens fleures, they runne mad therewith: and if they bite any thing afterwards, they leave behind them ſuch a venome, that the wounds are incurable: nay the very clammie ſlime Bitumen, which at certaine times of the yeere floteth and ſwimmeth upon the lake of Sodome, called Aſphaltites in Iurie, which otherwiſe of the owne nature is pliable enough, ſoft and gentle, and ready to follow what way a man would have it, cannot be parted and divided aſunder, (for by reaſon of the viſcoſitie, it cleaveth and ſticketh like glew, and hangeth all together, plucke as much as a man will at it) but onely by a thred that is ſtained with this venomous bloud. Even the ſilie Pismires (the leaſt creature of all others) hath a perceivance & ſence of this poyſon, as they ſay: for they caſt aſide and will no more come to that corne, which they have once found by taſt to bee infected with this poyſon. This maladie, ſo venomous and hurtfull
F as it is, followeth a woman ſtill every thirtie daies: and at three moneths end, if it ſtay ſo long, it commeth in greater abundance. And as there be ſome women that have it oftener than once a month, ſo there are others againe that never ſee ought of it. But ſuch lightly are barren, and never bring children. For in very deed, it is the materiall ſubſtance of generation: and the mans ſeed ſerveth in ſteed of a runnet to gather it round into a curd: which afterwards in proceſſe of

time quickeneth and groweth to the forme of a bodie: which is the cause that if women with child have this fluxe of the moneths, their children are not long lived, or else they proove feeble, sickly, and full of filthie humors, as *Nigidius* writeth. G

Chap. xvi.

In like manner, of births: and infants in the mothers wombe.

THe same *Nigidius* is of opinion, that a womans milke, nource to her own child and giving it sucke, will not corrupt and be naught for the babe, if she conceive againe by the same man to whom she brought the former child. Also it is held, that in the beginning and end of the foresaid menstruall fleures, a woman is very apt to conceive. Moreover, it is commonly received for an infallible argument in women, that they are fruitfull and with child, if when they annoint their eyes with their owne spittle as with a medicine, the same appeare infected and to chaunge the colour thereupon. Furthermore, doubtlesse it is, that children breed their fore-teeth in the seventh moneth after they are borne, and first those in the upper chaw, for the most part: likewise, that they shed the same teeth about the seventh yeere of their age, and others come up new in the place. Certaine it is also, that some children are borne into the world with teeth, as *M. Curius*, who thereupon was surnamed *Dentatus*: and *Cn. Papyrius Carbo*, both of them very great men and right honourable personages. In women the same was counted but an unluckie thing, and presaged some misfortune, especially in the daies of the KK. regiment in Rome: for when *Valeria* was borne toothed, the wizards and soothsayers being consulted thereabout, answered out of their learning by way of propheſie, That looke into what citie she was carried to nource, she should be the cause of the ruine and subversion thereof: whereupon had away shee was and conveyed to Suessa Pometia, a citie at that time most flourishing in wealth and riches: and it prooved most true in the end, for that cittie was utterly destroyed. *Cornelia* the mother of the *Gracchi* is sufficient to prove by her owne example, that women are never born for good whose genitall parts for procreation are growne together, and yeeld no entrance. Some children are borne with an entire whole bone that taketh up all the gumbe, instead of a row of distinct teeth; as a sonne of *Prusias* king of the Bythinians, who had such a bone in his upper chaw. This is to be observed about teeth, that they onely checke the fire and burne not to ashes with other parts of the bodie: and yet as invincible as they are and able to resist the violence of the flame, they rot and become hollow with a litle catarrhe or waterish rheum that droppeth and distilleth upon them: white they may be made, with certaine mixtures and medicines called *Dentifices*. Some weare their teeth to the very stumpes onely with use of chawing: others again loose them first out of their head: they serve not only to grind our meat for our daily food and nourishment, but necessarie also they be for the framing of our speech. The fore-teeth stand in good stead to rule and moderate the voice by a certaine concent and tuneable accord, answering as it were to the stroke of the tongue: and according to that row and ranke of theirs wherein they are set, as they are broader or narrower, greater or smaller, they yeeld a distinction and varietie in our words, cutting and hewing them thicke and short, framing them pleasant, plaine, and readie, drawing them out at length, or smuddering and drowning them in the end: but when they be once falne out of the head, man is bereaved of all meanes of good utterance and explanation of his words. Moreover, there are some presages of good or bad fortune, gathered by the teeth: men ordinarily have given them by nature two and thirtie in al, except the nation of the Turduli. They that have above this number, may make account (as it is thought) to live the longer. As for women, they have not so many: they that have on the right side in the upper jaw two eye-teeth, which the Latines call Dogs-teeth, may promise themselves the flattering favours of fortune, as it is well seene in *Agrippina* the mother of *Domitius Nero*: but contrariwise, the same teeth double in the left side above, is a signe of evill lucke. It is not the custome in any countrey to burne in a funerall fire the dead corps of any infant before his teeth be come up: but hereof will we write more at large in the Anatomie of man, when we shall discourse purposely of every member and part of the bodie. *Zoroastres* was the onely man that ever we could here of, who laughed the same day that he was borne: his brain did so evidently pant and beat, that it would beare up their hands that laid them upon his head: a most certein presage and fore-token of that great learning that afterwards he attained unto. This also is held for certein and resolved upon, that a man at three yeeres of age, is come to one moitie of his growth and heigth. As also this H I K L M

is

A is obſerved for an undoubted truth, that generally all men come ſhort of the full ſtature in times paſt, and decreaſe ſtill every day more than other: and ſeldome ſhall ye ſee the ſonne taller than his father: for the ardent heat of the elementarie fire (whereunto the world inclineth alreadie now toward the latter end, as ſometimes it ſtood much upon the waterie element) devoureth and conſumeth that plentifull humor and moiſture of naturell ſeed, that engendreth all things: and this appeareth more evidently by theſe examples following. In Crete, it cãunced that an hill clave aſunder in an earthquake, and in the chinke thereof was found a bodie ſtanding, 46 cubits high: ſome ſay it was the bodie of *Orion*: others, of *Otus*. We find in chronicles and records of good credit, that the bodie of *Oreſtes* being taken up, by direction from the Oracles, was ſeven cubits long. And verily that great and famous poët *Homer*, who lived almoſt a thouſand yeeres agoe, complained and gave not over, That mens bodies were leſſe of ſtature even then, than in old time. The Annales ſet not downe the ſtature and bigneſſe of *Nævius Pollio*; but that he was a mightie gyant, appeareth by this that is written of him, namely, That it was taken for a wonderfull ſtraunge thing, that in a great rout and preaſe of people that came running togither upon him, he had like to have been killed. The talleſt man that hath been ſeene in our age, was one named *Gabbara*, who in the daies of prince *Claudius* late Emperour, was brought out of Arabia; nine foot high was he, and as many inches. There were in the time of *Auguſtus Cæſar* 2 others, named * *Puſie* and *Secũdilla*, higher than *Gabbara* by halfe a foot, whoſe bodies were preſerved and kept for a wonder in a charnell houſe or ſepulchre within the gardens of the Saluſtians. Whiles the ſame *Auguſtus* ſate as preſident, his neece *Iulia* had a little dwarfiſh fellow not above two foot and a hand breadth high, called *Conopas*, whome ſhe ſet great ſtore by and made much of: as alſo another ſhee-dwarfe named *Andromeda*, who ſomtime had been the ſlave of *Iulia* the princeſſe, and by her made free. *M. Varro* reporteth, that *Manius Maximus*, and *M. Tullius*, were but two cubits high, and yet they gentlemen and knights of Rome: and in truth we our ſelves have ſeene their bodies how they lie embalmed and cheſted, which teſtifieth no leſſe. It is well knowne, that there be ſome that naturally are never but a foot and an halfe high; others again ſomewhat longer: and to this heigth they came in three yeeres, which is the full courſe of their age, and then they die. We read moreover in the Chronicles, that in Salamis one *Euthimenes* had a ſonne, who in three yeeres grew to be three cubits high, but hee was in his gate ſlow and heavie, and in his wit as dull and blockiſh: howbeit in this time under-growne he was, and his voice chaunged to be great, and at three yeeres end died ſodainly of a generall crampe or contraction of all the parts of his bodie. It is not long ſince I ſaw my ſelfe the like in all reſpects (ſaving that undergrowing aforeſaid) in a ſonne of one *Cornelius Tacitus* a Romane knight, and a procurator or generall receiver and treaſurer for the State in Gaule Belgique: ſuch the Greekes call Εκτραπελος, *i. Ectrapelos*: we in Latine have no name for them.

* Ten foot and an halfe.

* Such an one as little *Iohn*, for ſo the nick-name ſignifieth.

Chap. xvii.

Certaine notable obſervations in bodies of men and women.

WEe ſee tried by experience, that take meaſure of a man from the ſole of the foot up to the crowne of the head, ſo farre it is betweene the ends of his two middle and longeſt fingers, when hee ſtretcheth out his armes and hands to the full. As alſo, that ſome men and women be ſtronger of the right ſide than of the left: others againe that be as ſtrong of one as the other: and there be, that are altogither left handed, and beſt with that hand: but that is ſeldome or never ſeene in women. Moreover, men weigh heavier than women: and in everie kind of creature, dead bodies be more heavie, than the quicke: and the ſame parties ſleeping weigh more than waking. Finally, obſerved it is, that the dead corps of a man floteth upon the water with the face upward, but contrariwiſe women ſwimme groveling, as if Nature had provided to ſave their honeſtie and cover their ſhame, even when they are dead.

Chap. xviii.

Examples of divers extraordinarie caſes in mans bodie.

WEe have heard, that ſome mens bones are ſolide and maſſie, and ſo do live without any marow in them: you may know them by theſe ſignes, they never feele thirſt, nor put forth any ſweat: and yet we know that a man may conquer and maſter his thirſt if hee liſt:

liſt: for ſo a gentleman of Rome one *Iulius Victor*, deſcended from the race of the Vocontians our allies; being falne into a kind of dropſie betweene the skin and the fleſh during his minoritie and nonage, and forbidden by the Phyſicions to drinke; ſo accuſtomed himſelfe to obſerve their direction, that naturally he could abide it: in ſo much, that all his old age even to his dying day, he forbare his drinke. Others alſo have ben able to command and over-rule their nature in many caſes, and breake themſelves of divers things. G

Chap. xix.

Straunge natures and properties of divers perſons.

IT is ſaid, that *Craſſus* (grandfather to that *Craſſus* who was ſlaine in Parthia) was never knowne to laugh all his life time, and thereupon was called *Agelaſtus*: and contrariwiſe, many have been found that never wept. Alſo that ſage and renowmed wiſe man *Socrates*, was ſeen alwaies to carrie one and the ſelfeſame countenance, never more merrie and cheerfull nor more ſolemn and unquiet, at one time than at another. But this obſtinate conſtancie and firme cariage of the mind, turneth now and then in the end into a certaine rigour and auſteritie of nature, ſo hard and inflexible that it cannot be ruled, and in very truth deſpoileth men of all affections; and ſuch are called of the Greekes, Apathes, who had the experience of many ſuch: and (that which is a marveilous matter) thoſe eſpecially that were the great pillars of Philoſophie and deepe learned Clerkes, namely *Diogenes* the Cinicke, *Pyrrho*, *Heraclitus*, and *Timo*, and as for him he was ſo farre gone in this humor, that he ſeemed profeſſedly to hate all mankind. But theſe were examples of a corrupt, perverſe, and froward nature. As for other things, there be ſundrie notable obſervations in many, as in *Antonia* the wife of *Druſus*, who as it was well knowne, never ſpit: in *Pomponius* the poët, one that had ſometimes beene Conſull, who never belched. But as for ſuch as naturally have their bones not hollow, but whole and ſolid, they be very rare and ſeldom ſeene, and called they are in Latine *Cornei*, *i.* hard as horne. H I

Chap. xx.

Of bodily ſtrength and ſwiftneſſe.

VArro in his treatiſe of prodigious and extraordinatie ſtrength, maketh report of one *Tritanus*, a man that of bodie was but little and leane withall, howbeit of incomparable ſtrength, much renowmed in the fenſe ſchoole, and namely, in handling the Samnites weapons, wearing their manner of armor, and performing their feats and maſteries of great name. He maketh mention alſo of a ſonne of his, a ſouldier, that ſerved under *Pompeius* the Great, who had all over his bodie, yea and throughout his armes and hands, ſome ſinewes running ſtreight out in length, others croſſing over-thwart lattiſe-wiſe: and he ſaith moreover of him, that when an enemie out of the campe gave him defiance and challenged him to a combat, he would neither put on defenſive harneſſe, ne yet arme his right hand with offenſive weapon; but with naked hand made means to foile and overcome him, and in the end when he had caught hold of him, brought him away perforce into his owne campe with one finger. *Iunius Valens* a captain, penſioner, ot centurion of the guard ſouldiers about *Auguſtus Cæſar*, was wont alone to beare up a charriot laden with certaine hogſheads or a butt of wine, untill it was diſcharged therof, and the wine drawn out: alſo his manner was with one hand to ſtay a coach againſt all the force of the horſes ſtriving and ſtraining to the contrarie: and to perforce other wonderfull maſteries, which are to be ſeene engraven upon his tombe: and therefore (qd. *Varro*) being called *Hercules Ruſticellus*, he tooke up his mule upon his backe and carried him away. *Fuſius Salvius* having two hundred pound weights at his feet, and as many in his hands, and twiſe as much upon his ſhoulders, went withall up a paire of ſtaires or a ladder. My ſelfe have ſeene one named *Athanatus*, do wonderfull ſtraunge matters in the open ſhew and face of the world, namely, to walke his ſtations upon the ſtage with a cuirace of lead weighing 500 pound, booted beſides with a paire of buskins or greives about his legges that came to as much in weight. As for *Milo* the great wreſtler of Crotone, when hee ſtood firme upon his feet, there was not a man could make him ſtirre one foot: if he held a pomegranat faſt within his hand, no man was able to ſtretch a finger of his and force it out at length. It was counted a great matter, that *Philippides* ran 1140 ſtadia, to K L M

wit,

A wit, from Athens to Lacedæmon in two daies, untill *Laniſis* a courrier of Lacedæmon, and *Philonides* footman to *Alexander* the great, ran betweene Sicyone and Olis in one day, 1200 ſtadia. But now verily at this day we ſee ſome in the grand cirque, able to endure in one day the running of 160 miles. And but a while agoe wee are not ignorant, that when *Fonteius* and *Vipſanius* were Conſuls, a young boy but nine yeers old, betweene noone and evening ran 75 miles. And verily a man may wonder the more at this matter, and come to the full conceit thereof, if hee doe but conſider, that it was counted an exceeding great journey that *Tiberius Nero* made with three chariots (ſhifting from one to the other freſh) in a day and a night, riding poſt haſt unto his brother *Druſus* then lying ſicke in Germanie, and all that, was but 200 miles.

B

Chap. xxi.

Examples of good eieſight.

C WE find in hiſtories as incredible examples as any be, as touching quickneſſe of eieſight. *Cicero* hath recorded, that the whole Poëme of *Homer* called Ilias, was written in a peece of parchmin, which was able to be couched within a nut ſhell. The ſame writer maketh mention of one that could ſee and diſcerne outright 135 miles. And *M. Varro* nameth the man, and ſaith he was called *Strabo:* who affirmeth thus much moreover of him, that during the Carthaginian war hee was wont to ſtand and watch upon Lilybæum, a cape in Sicilie, to diſcover the enemies fleet loſing out of the haven of Carthage, & was able to tell the very juſt number of the ſhips. *Callicrates* uſed to make Piſmires and other ſuch like little creatures, out of yvorie ſo artificially, that other men could not diſcerne the parts of their bodie one from another. There was one *Myrmecides*, excellent in that kind of workmanſhip: who of the ſame matter wrought a chariot with foure wheeles and as many ſteeds, in ſo little rowme, that a ſilie flie might cover all with her wings. Alſo he made a ſhip with all the tackling to it, no bigger than a little bee might hide with her wings.

Chap. xxii.

Of hearing.

D AS for hearing, there is one example wonderfull. For the bruit of that battell, whereupon Sybaris was forced and ſacked, was heard the very ſame day as farre as to Olympia [in Greece.] As touching the news of the Cimbrians deſeature, as alſo the report and tidings of the victorie over the Perſians, made by the Romane Caſtores, the ſame day that it was atchieved, were held for divine revelations rather than humane reports, and the knowledge thereof came more by way of viſion than otherwiſe.

Chap. xxiii.

Examples of patience.

E MAny are the calamities in this life, incident to mankind, which have affourded infinite trials of mens patience, in ſuffering paines in their bodie. Among others for women, the example of *Leana* the courtiſan, is moſt rare and ſingular, who for all the dolorous tortures that could be deviſed, would never bewray *Harmodius* and *Ariſtogiton*, who ſlew the tyrannous king. And for men, *Anaxarchus* did the like, who being for ſuch a cauſe examined upon the racke, in the middeſt of his torments bit off his owne tongue with his teeth, the onely meanes wherby he might haply reveale and diſcloſe the matter in queſtion, and ſpit it in the face of the Tyrant that put him to this torture.

Chap. xxiiii.

F

Examples of memorie.

AS touching memorie, the greateſt gift of Nature, and moſt neceſſarie of all others for this life; hard it is to judge and ſay who of all others deſerved the cheefe honour therein: conſidering how many men have excelled, and woon much glorie in that behalfe. King *Cyrus*

was

was able to call every souldior that he had through his whole armie, by his owne name. *L. Scipio* could doe the like by all the citizens of Rome. Semblably, *Cineas*, Embassador of king *Pyrrhus*, the very next day that he came to Rome, both knew and also saluted by name all the Senate, and the whole degrees of Gentlemen and Cavallerie in the cittie. *Mithridates* the king, reigned over two and twentie nations of diverse languages, and in so many tongues gave lawes and ministred justice unto them, without truchman: and when hee was to make speech unto them in publicke assemblie respectively to every nation, he did performe it in their owne tongue, without interpretor. One *Charmidas* or *Carmadas*, a Grecian, was of so singular a memorie, that he was able to deliver by heart the contents word for word of all the bookes that a man would call for out of any librarie, as if he read the same presently within booke. At length the practise hereof was reduced into an art of Memorie: devised and invented first by *Simonides Melicus*, and afterwards brought to perfection and consummate by *Metrodorus Scepsius*: by which a man might learne to rehearse againe the same words of any discourse whatsoever, after once hearing. And yet there is not a thing in man so fraile and brittle againe as it, whether it be occasioned by disease, by casual injuries and occurrents, or by feare, through which it faileth sometime in part, and otherwhiles decaieth generally, and is cleane lost. One with the stroke of a stone, fell presently to forget his letters onely, and could read no more: otherwise his memorie served him well ynough. Another, with a fall from the roufe of a very high house, lost the remembrance of his own mother, his next kinsfolke, friends, and neighbours. Another, in a sickness of his forgot his owne servants about him: and *Messala Corvinus* the great Oratour, upon the like occasion, forgot his owne proper name. So fickle and slipperie is mans memorie: that oftentimes it assaieth and goeth about to leese it selfe, even whiles a mans bodie is otherwise quiet and in health. But let sleep creepe at any time upon us, it seemeth to be vanquished, so as our poore spirit wandereth up and down to seeke where it is, and to recover it againe.

Carneades, according to *Cicero* and *Quintilian*.

Chap. xxv.

The praise of C. Julius Cæsar.

For vigor and quickness of spirit, I take it, that *C. Cæsar* Dictatour, went beyond all men besides. I speake not now of his vertue and constancie, neither of his high reach and deep wit, whereby he apprehended the knowledge of all things under the cope of heaven; but of that agilitie of mind, that prompt and readie conceit of his, as nimble and active as the very fire. I have heard it reported of him, that hee was wont to write, to read, to endite letters, and withall to give audience unto suiters and heare their causes, all at one instant. And being employed, as you know he was, in so great and important affaires, hee ordinarily endited letters to foure secretaries or clearkes at once: and when he was free from other greater businesse, he would otherwhiles find seven of them worke at one time. The same man in his daies fought fiftie set battels with banners displaied against his enemies: in which point, he alone outwent *M. Marcellus*, who was seene fortie times save one in the field. Besides the carnage of citizens that hee made in the civile warres when he obtained victorie, he put to the sword 1192000 of his enemies, in one battell or other. And certes for mine owne part, I hold this for no speciall glorie and commendation of his, considering so great injurie done to mankind by this effusion of bloud: which in some part he hath confessed himselfe, in that he hath forborne to set downe the overthrowes and bloudshed of his adversaries (fellow-citizens) during the civile wars. Yet *Pompey* the great deserveth honor more justly for scouring the seas, and taking from the rovers 846 saile of ships. But to returne againe to *Cæsar*, over and above the qualities of worth before rehearsed, an especiall propertie of his owne he had, for clemencie and mercie, wherein he so farre forth surmounted all other men, that hee repented therof in the end. As for his magnanimitie, it was incomparable, and he left such a president behind him, as I forbid all men to match or second it. For to speake of his sumptuosities, of his largesses, of the magnificent shewes exhibited to the people, the exceeding cost & charges therein bestowed, with all the stately furniture thereto belonging, were a point of him that favoured such lavish expence and superfluities. But herein appeared his true hautinesse of mind indeed, and that unmatchable spirit of his, That when upon the battell at Pharsalia, as wel the cofers and caskets with letters & other writings of *Pompey*, as also those of *Scipios* before Thapsus, came into his hands, he was most true unto them, & burnt al, without reading one script or scroll.

A

Chap. XXVI.

The commendation of Pompey the Great.

AS concerning all the titles and victorious triumphs of *Pompey* the great, wherein hee was equall in renowme and glorie, not onely to the acts of *Alexander* the great, but also of *Hercules* in a manner, and god *Bacchus*: if I should make mention thereof in this place, it would redound not to the hónour onely of that one man, but also to the grandeur and majestie of the Romane Empire. In the first place then, after hé had recovered Sicilie, and reduced it under obeisance (where his first rising was, and where he began to shew himselfe in the quarell of the
B Commons, and to side with *Sylla*) having also conquered and subdued Affricke, and raunged it under the obedience of Rome, where hee acquired the surname of *Magnus*, by reason of the great bootie and pillage which hee brought from thence: being no higher of birth and calling, than a Romane gentleman or man of armes, entred with triumphant chariot into Rome; a thing that was never seene before in a man of that place and qualitie. Immediately after this, he made a voiage into the West, and having brought under obeisance of the Romanes 876 great townes, which he forced by assault betweene the Alpes and the marches of Spaine, he erected Trophees and triumphant columnes upon the mountaine Pyrenæus, with the title and inscription of these
C victorious exploits: and never made one word of his victorie over *Sertorius*, so brave a mind hee carried with him. And after the civile troubles and broiles appeased and quenched (which drew after them all forraine warres) hee triumphed againe the second time, being as yet but a knight of Rome: so oftentimes a generall of commaund and conduct: before hee ever served as soldiour in the field. These famous deeds atchieved, sent out he was in another expedition, to scoure and cleere all the seas, and so forward into the East parts. From whence he returned with more titles still of honor to his countrey, after the manner of those that win victories at the solemn feastivall *Games. For as the victors use not themselves to accept the chaplets & guirlands in their own names, but to be crowned therwith in the behalf of their native countries: even so, *Pompeius*, in that temple which he caused to be built of the bootie and pillage woon from the enemies, and dedicated to *Minerva*, entituled the cittie with the whole honour, and attributed all unto them in an inscription or table engraven in this manner: POMPEIUS *the Great, lord generall, having*
D *finished the warres which continued thirtie armies, during which hee had discomfited, put to flight, slaine, or received to mercie upon submission 2183000 men: sunke or taken 846 ships: taken & brought to his devotion, of cities, townes, and castles, to the number of 1538: subdued and put under subiection all lands and nations, betweene the lake Maotis and the red sea, hath dedicated of right and good desert this temple to* MINERVA. This is the breefe and summarie of his service in the East. As for the triumph, wherein he rode the third day before the Calends of October, in the yeere wherein *M. Messala* and *M. Piso* were Consuls, the tenure or title ran in this forme. Whereas *Cn. Pompeius* "
hath cleared all the sea-coasts from pirates and rovers, and thereby recovered unto the people of "
Rome the lordship and soveraignetie of the seas: and withall subdued Pontus, Armenia, Paphla- "
gonia, Cappadocia, Cilicia, Syria: the Scythians, Indæa, & the Albanois: the Iland Creta, and "
E the Bastarnians, hath triumphed over them all, as also for the vanquishing of the two kings *Mi-* "
thridates and *Tigranes*. But the greatest glorie of all glories in him was this (as himselfe delivered "
openly in a ful assembly, at what time as he discoursed of his own exploits) That wheras Asia when
he received it, was the utmost frontier province and limit of the Roman Empire, he left the same in the very hart & mids therof, and so delivered it up to his country. Now if a man would set *Cæsar* on the other side against him, and likewise rehearse his noble acts, who indeed of the two seemed greater in the sight of the world, he had need verily to fetch a circuit about the world, & comprehend the whole globe thereof, which were an infinit peece of worke, and in all reason impossible.

F

Chap. XXVII.

The praise of Cato, the first of that name.

IN sundrie other kinds of vertues many men have diversly excelled. But *Cato*, the first of the *Porcian* house, was thought to be the only person who was able to perform three things in the highest degree that are most commendable in a man. For first and formost hee was a singular

*Olympia, Nemæa, Pythia, Isthmia.

* or Victorie.

good Oratour: secondly, a most brave captaine and renowmed commander in the field: and last of all, a right worthie Senatour and approved counsellor. And yet in my conceit, all these excellent parts seeme to have shined more bright (although he came after the other) in *Scipio Æmylianus*. To say nothing of this blessed gift besides, that he was not hated and spighted of so many men, as *Cato* was. But if you will seeke for one especiall thing in *Cato* by himselfe, this is reported of him, That he was judicially called to his answer 44 times, and never was there man accused oftener than he, yet went he ever cleare away and was acquit.

Chap. xxviii.

Of Valour and Fortitude.

AN endlesse peece of worke it were to know and set downe who bare the price for valiancie, & namely if we admit the fabulous tales of poets. As for the poet *Ennius*, he had in greatest admiration. *T. Cæcilius Teucer*, and especially his brother: and in regard of those two, he compiled the sixt booke of his Annales to the rest. But *L. Siccius Dentatus*, a Tribune of the Commons, not long after the banishment of the kings, when *Sp. Tarpeius* and *A. Æternius* were Consuls, by most voices surpasseth in this kind, if it be true that a number of men report of him: namely, that he served in 120 foughten fields: 8 times maintained combate with his enemie, giving defiance, and evermore got the upper hand: carried before him the glorious markes of 45 skarres received by wounds, and never a one in the backe parts of his bodie. Moreover, hee woon the spoile of 34 severall enemies: and had given him of his captaines, for his proëesse and good service, 18 headlesse speares, 25 caparisons and furnitures of great horses, 83 chains, 160 bracelets for to adorne his arms: 26 crowns, or triumphant chaplets, wherof 14 were civick, for rescuing of Roman citizens in jeopardie of death, 8 of beaten gold: three other murall, for mounting first over the enemies wall: and last of all, one obsidionall, for enforcing the enemie to levie and breake up his siege and depart: also with a stipend or pension-fee out of the Exchequer & chamber of the citie: and lastly, the price or raunsome of ten prisoners, with twentie oxen besides to make up the reward: and in this glorious pompe and shew he followed nine captaine Generals, going before him, who by his meanes triumphed all. Over and besides (which I suppose, was the worthiest act that ever he did) he accused in open court before the bodie of the people, one commander and great captaine, named *T. Romulius*, (notwithstanding he had been a Consull) & convicted him for his ill management and conduct of the warres. As for *Manlius Capitolinus*, he wan as many honourable testimonies of valour, but that he lost them all againe, with that unhappie end of his life that hee made. Before hee was full 17 yeeres of age, hee had gained alreadie two complete spoiles of his enemies. He was the first Roman knight or man of armes, that was honored with a murall crown of gold for skaling over the wall in an assault: with sixe civike chaplets for saving the life of cittizens sixe times out of the enemies hands. Moreover, he received 37 gifts of the people for his good service, and carried the skars in the fore-part of his bodie of 33 wounds. He rescued *P. Servilius*, generall of the Roman Cavallerie, and in the rescue was himselfe wounded for his labour in shoulder and thigh both. Above all other hardie acts, hee alone guarded and defended the Capitoll, and thereby the whole State of Rome, against the Gaules: a brave peece of service, but that he marred all againe in aspiring to bee king over the same. In these above rehearsed examples, certes vertue hath carried a great stroke, but yet fortune hath been the mightier, and prevailed more in the end. And in my judgement verily, none may right and justly preferre any man before *M. Sergius*: albeit *Catiline* his nephewes sonne discredited that name of his, and derogated much from the honour of his house. The second time that hee went into the field and served, his hap was to loose his right hand: and in two other services hee was wounded no fewer than three and twentie times: by meanes whereof hee had little use of either hand, and his feet stood him in no great steed. Howbeit, thus maimed and disabled as he was for to be a soldiour, he went many a time after to the warres, attended with one slave onely, and performed his devoire. Twise was he taken prisoner by *Anniball*, (for hee dealt not I may tell you with ordinarie enemies) and twise brake he prison and made escape, notwithstanding, that for twentie moneths space he was every day ordinarily kept bound with chaines and fetters. Foure times fought hee with his left hand only, untill two horses one after another, were killed under him. Then he made himselfe a right hand of yron, which he fastened to his arme, and fighting with the helpe of it, he raised

A raiſed the ſeege from before Cremona, and ſaved Placentia. In Fraunce he forced twelve fortified campes of the enemies. All which exploits appear upon record in that Oration of his which hee made in his Pretourſhip, at what time as his Colleagues and companions in government would not permit him to be at the ſolemne ſacrifices, becauſe he had a maime, and wanted a lim. But what heapes of crownes and chaplets, thinke you, would hee have gathered together, if hee had been committed and matched with any other enemies but *Annibal*? Certes, to know a man of worth indeed, much materiall it is to conſider in what time he liveth, and is emploied, for the proofe of his valour. For what ſtore of civicke coronets and garlands, yeelded either the battell of Trebia and Ticinus, or of Thraſymenus the lake? what crowne could have been gained and woon at the journey of Cannæ, where the beſt ſervice was by good footmanſhip to flie and
B run away? To conclude, all others may vaunt verily, that they have vanquiſhed men: but *Sergius* may boaſt, that he hath conquered and overcome even Fortune her ſelfe.

Chap. xxix.

The commendations of ſome men for their quicke wits.

WHo is able to make a muſter as it were of them that have been excellent in wit: ſo difficult a matter it is to run through ſo many kinds of ſciences, and to take a ſurvey of curious handie workes in ſuch varietie, of moſt rare and ſingular artifanes? Vnleſſe haply wee agree upon this, and ſay, that *Homer* the Greeke poet excelled all other, conſidering
C either the ſubject matter, or the happie fortune of his worke. And hereupon it was, that *Alexander* the great (for in this ſo prowd a cenſure and compariſon, I ſhall doe beſt to cite the judgement of the higheſt, and of thoſe that bee not ſubject to envie) having found among the ſpoiles of *Darius* the king, his perfumier or casket of ſweet ointments, and the ſame richly embelliſhed with gold, with coſtly pearles and precious ſtones: when his friends about him, ſhewed him many uſes whereto the ſaid coffer or cabinet might bee put unto, conſidering that *Alexander* himſelfe could not away with thoſe delicate perfumes, being a warriour, and ſlurried with bearing armes, and following warfare: when, I ſay, his gallants about him could not reſolve well what ſervice to put it to: himſelfe made no more adoe, but ſaid thus, I will have it to ſerve for a caſe of
D *Homers* bookes: judging hereby, that the moſt rare and precious worke proceeding from that ſo admirable a wit of man, ſhould bee beſtowed and kept in the richeſt boxe and casket of all others. The ſame prince, in the forcing and ſaccage of the cittie of Thebes, cauſed by expreſſe commaundement, That the dwelling houſe and whole familie of *Pindarus* the Poet ſhould bee ſpared. Hee built againe the native cittie wherein *Ariſtotle* the Philoſopher was borne: and in ſo glorious a ſhew of his other worthie deeds, would needs intermingle this teſtimonie of his bountie, in regard of that rare clearke who gave light to all things in the world. The murderers of *Archilochus* the Poet, the verie Oracle of *Apollo* at Delphi, diſcloſed and revealed. When *Sophocles* the prince of all tragicall Poets was dead in Athens, at what time as the cittie was beſieged by the Lacedæmonians, god *Bacchus* appeared ſundrie times by way of viſion in a dreame to *Lyſander* their king, admoniſhing him to ſuffer his delight, and him whom
E he ſet moſt ſtore by, for to bee enterred. Whereupon the king made diligent enquirie who lately was departed this life in Athens: and by relation of the citizens ſoone found it out and perceived who it was that the foreſaid god meant, and ſo gave them leave to burie *Sophocles* in peace, and to performe his funerals without any moleſtation or impeachment.

Chap. xxx.

Of Plato, Ennius, Virgil, M. Varro, and M. Cicero.

F DEnis the tyrant, borne otherwiſe to pride and crueltie, being advertiſed of the comming and arrivall of *Plato*, that great clerke and prince of learning, ſent out to meet him a ſhip adorned with goodly ribbands, and himſelfe mounted upon a charriot drawne with foure white horſes, received him as if hee had beene a K. at the haven, when hee disbarked and came a land. *Iſocrates* ſold one Oration that he made, for 20 talents of gold. *Æſchines*, that famous orator of Athens in his time, having at Rhodes rehearſed that accuſatorie oration which hee had

made against *Demosthenes*, read withall his adversaries defence againe; by occasion whereof he was confined to Rhodes, and there lived in banishment: and when the Rhodians that heard it wondred thereat; Nay (qd. *Æschines*) you would have marveiled much more at it, if you had heard the man himselfe pronouncing it, and pleading *Viva voce*: yeelding thus as you see a notable testimonie of his adversarie, in the time of his adversitie. The Atheniens exiled *Thucydides* their Generall captain: but after he had written his Chronicle, they called him home again, wondring at the eloquence of the man, whose vertue and proweſſe they had before condemned. The KK. of Ægypt and Macedonie gave a singular testimonie how much they honoured *Menander* the Comicall poët, in that they sent embassadours for him, and a fleet to waft him for his more securitie: but he wan unto himselfe more fame and glorie by his owne setled judgement, for that he esteemed more of his owne privat studie and following his booke, than of all those favours offered unto him from great princes. Moreover, there have beene great personages and men of high calling at Rome, who have shewed the like in token, how they esteemed and regarded the learned crew of forrein nations. *Cn. Pompeius*, after he had dispatched the warre against *Mithridates*, intended to go and visit *Posidonius*, that renowmed professor of learning: and when he should enter into the mans house, gave straight commandement to his Lictors or Huishers, that they should not (after their ordinarie manner with all others) rap at his dore: and this great warriour, unto whome both the East and West parts of the world had submitted, vailed bonet as it were, and based his armes and ensigns of state which his officers caried, before the very dore of this Philosopher. *Cato* surnamed *Censorius*, upon a time when there came to Rome that noble embassage from Athens, consisting of three, the wisest Sages among them; when hee had heard *Carneades* speake (who was one of those three) gave his opinion presently, That those embassadors were to be dispatched and sent away with all speed; for feare least if that man argued the case, it would be an hard peece of worke to sound and find out the truth, so pregnant were his reasons and so wittie his discourses. But Lord! what a chaunge is there now in mens manners and dispositions! This *Cato*, the renowmed Censor, both now and at all times else, could not abide to have any Grecian within Italy, but alwayes gave judgement to them all in generall to be expelled: but after him there comes his nephew once removed, or his nephewes sonne, who brought one of their Philosophers over with him, when he had ben militarie Tribune or knight marshall: and another likewise upon his embassage to Cyprus. And verily a wonder it is and a memorable thing, to consider how these two *Catoes* differed in another point: for the former of them could not away with the Greeke tongue; the other that killed himselfe at Vtica, esteemed it as highly. But to leave straungers, let us now speake of our owne countreymen, so renowmed in this behalfe. *Scipio Africanus* the elder, gave expresse order and commaunded, That the statue of *Q. Ennius* the poët should be set over his tombe, to the end, that the great name and stile of *Africanus*, or indeed the bootie rather that hee had woon and carried away from a third part of the world, should in his monument upon the relickes of his ashes be read together with the title of this poët. *Augustus Cæsar* late emperour, expressely forbad that the Poëme of *Virgil* should be burned, notwithstanding that he by his last will and testament upon a modestie, gave order to the contrarie: by which means there grew more credit and authoritie unto the Poët, than if himselfe had approoved and allowed his owne verses. *Asinius Pollio* was the first that set up a publick librarie at Rome, raised of the spoile and pillage gained from the enemies. In the librarie of which gentleman, was erected the image of *M. Varro*, even whiles he lived: a thing that woon as great honour to *M. Varro* in mine opinion (considering that among those fine wits, whereof a great number then flourished at Rome, his hap onely was to have the guirland at the hands of a noble citizen and an excellent oratour beside:) as that other navall crowne gained him, which *Pompey* the Great bestowed upon him for his good service in the pyrats warre. Infinite examples more there are of us Romanes, if a man would seeke after them and search them out: for this onely nation hath brought forth more excellent and accomplished men in every kind, than all the lands besides of the whole world. But what a sinne should I commit, if I proceeded farther and spake not of thee, ô *M. Cicero*? and yet how should I possibly write of thee according to thy worthinesse? would a man require a better proofe of thy condigne praises, than the most honorable testimonie of the whole bodie of that people in generall, and the acts onely of thy Consulship, chosen out of all other vertuous deeds throughout thy whole life? Thine eloquence was the cause that all the Tribes renounced the law *Agraria*, as touching the division of lands among

among the commons, albeit their greateſt maintenance and nouriſhment conſiſted therein. Through thy perſuaſion they pardoned *Roſcius*, the firſt authour of that ſeditious bill and law, whereby the States and degrees of the cittie were placed diſtinctly in their ſeats at the Theatre: they were content, I ſay, and tooke it well, that they were noted and pointed at for this difference in taking place and rowmes, which he firſt brought in. By meanes of thy orations, the children of proſcript and outlawed perſons, were aſhamed and abaſhed to ſue for honorable dignities in common-weale: thy wittie head it was that put *Catiline* to flight, and baniſhed him the cittie: thou, and none but thou didſt out-law *M. Antonius*, and put him out of the protection of the ſtate. All haile therefore, ô *M. Tullius*: faire chieve thee, thou that firſt was ſaluted by the name of *Parens Patriæ*, *i.* Father of thy countrey: firſt that deſerved triumph in thy long robe, and the lawrell guirland, for thy language: the only father indeed of eloquence and of the Latin tongue: and (as *Cæſar* Dictator ſometime thine enemie hath written of thee) haſt deſerved a crowne above all other triumphs, by how much more praiſe-worthie it is, to have amplified and ſet out the bounds and limits of Romane wit and learning, than of Romane ground and dominion.

Chap. xxxi.

Of a certaine maieſtie in behaviour and carriage.

THoſe, who among other gifts of the mind have ſurpaſſed other men in ſage adviſe and wiſdome, were thereupon at Rome ſurnamed *Cati*, and *Corculi*. In Greece, *Socrates* carried the name away from all the reſt, beeing deemed by the Oracle of *Apollo Pythius*, the wiſeſt man of all others.

Chap. xxxii.

Of Authoritie.

AGaine, *Chilo* the Lacedemonian was of ſo great reputation among men, that his ſayings were held for Oracles: and three precepts of his were written in letters of gold, and conſecrated in the temple of *Apollo* at Delphi: where the firſt was this, *Know thy ſelfe*: the ſecond, *Set thy mind too much of nothing*: the third, *Debt and law are alwaies accompanied with miſerie*. His hap was to die for joy, upon tidings that his ſonne wan the beſt prize and was crowned victour at the ſolemne game Olympia: and when he ſhould be interred, all Greece did him honour, and ſolemnized his funerals.

Chap. xxxiii.

Perſons of a divine ſpirit and heavenly nature.

AMong women, *Sibylla* was excellent at divination, and for a certaine fellowſhip and ſocietie with cœleſtiall wights, of great name. As for men, among the Greekes, *Melampus*: and with us Romanes, *Martius*, carried as great an opinion.

Chap. xxxiiii.

Scipio Naſica.

SCipio *Naſica* was judged once by the Senat (ſworne to ſpeake without paſſion and affection) to be the beſt and honeſteſt man that ever was from the beginning of the world: howbeit the ſame man, as upright as hee was, ſuffered a repulſe and diſgrace at the peoples hands in his white robe when he ſued for a dignitie: and to conclude, in the end his hap was not to depart this life in his owne countrey; no more than it was the will of God that *Socrates* the wiſeſt man, (ſo deemed by the Oracle of *Apollo*) ſhould die out of priſon.

Chap. xxxv.

Of Chaſtitie.

SVlpitia, daughter of *Paterculus* and wife to *Fulvius Flaccus*, by all the voices in generall of Romane dames, carried away the prize for continencie, and was elected out of the hundred principall matrons of Rome to dedicate and conſecrate the image of *Venus*, according to

an ordinance out of *Sibyls* bookes. *Claudia* likewise, was by a religious and devout experiment prooved to be such another, at what time as shee brought the mother of the gods, *Cybele*, to Rome. C

Chap. xxxvi.

Of Pietie, or kindnesse.

IN all parts verily of the world, there have been found infinite examples of naturall love and affection, but one example thereof at Rome hath been knowne singular above all others, and incomparable. There was a poore young woman of the common sort, and therefore base and of no account, who lately had been in childbed, whose mother was condemned to perpetuall H prison, and there lay, for some great offence that she had committed: this daughter of hers and young nource aforesaid, obtained leave to have accesse unto her mother, and evermore by the goaler was narrowly searched for bringing to her any victuall, because her judgement was to be famished to death: thus shee went and came so long, untill at last she was found suckling of her mother with the milke of her breasts. This was reputed for such a straunge and wondrous example, that the mother was released and given to the daughter for her rare pietie and kindnes: both of them had a pension out of the cittie allowed them for their maintenance for ever; and the place where this hapned was consecrated to *Pietie*: in so much, as when *C. Quintius* and *M. Acilius* were Consuls, there was a temple to her built, in the very place where this prison stood, just where as now standeth the Theatre of *Marcellus*. The father of the *Gracchi* happened to light I upon and take two serpents within his house, whereupon hee sent out to the soothsayers for to know, What this thing might presage? who made this answer, That if he would himselfe live, the female snake should be killed: Nay marry (qd. hee) not so, but rather kill the male; for my wife *Cornelia* is young enough, and may have more children. This said he, meaning to spare his wives life, in consideration of the good shee might doe to the common-weale. And in truth, like as the wizards propheside, so it fell out soone after, and their words tooke effect. *M. Lepidus* so entirely loved his wife *Apuleia*, that he died for very thought and griefe of heart, after shee was divorced from him and turned away. *P. Rutilius* chaunced to be somewhat ill at ease and sickish, but hearing of his brothers repulse and that he was put by his Consulship (for which hee stood in suite) died sodainly for sorrow. *P. Catienus Philotimus* so loved his lord and master, that notwithstanding he was by him made his sole heir of all that ever he had, yet for kind heart, cast himselfe into the funerall fire to be burnt with him. K

Chap. xxxvii.

Of divers excellent men in many Arts and Sciences, and namely, in Astrologie, Grammer, and Geometrie.

IN the skill and knowledge of sundrie Sciences, an infinite number of men have excelled: howbeit, we will but take the very flower of them of them all, and touch those onely whome meet it is to be named for their speciall desert. In Astrologie, *Berosus* was most cunning: in so L much as the Atheniens for his divine predictions and prognostications; caused his statue with a golden tongue, to be erected in the publicke schoole of their Vniversitie. For Grammer, *Apollodorus* was singular, and therefore was highly honoured of the States of Greece, called Amphictyones. In Physicke, *Hippocrates* excelled, so farre forth as by his skill he fore-told of a pestilence that should come out of Sclavonia: and for to cure & remedie the same, sent forth his disciples and schollers to all the citties about. In recompence of which good desert of his, all Greece by a publicke decree ordained for him the like honours, as unto *Hercules*. For the very same cunning and science, king *Ptolomæ* gave unto *Cleombrotus* of Cea (at the solemne feast holden in the honour of the great mother of the gods) a hundred talents, and namely for curing king *Antiochus*. *Critobulus* likewise acquired and got himselfe a great name, for drawing an arrow forth of king M *Philips* eie, and curing the wound when he had done, so as the sight remained, and no blemish or deformity appeared. But *Asclepiades* the Prusian, surpassed al others in this kind, who was the first authour of that new sect which bare his name, rejected the Embassadors, the large promises and favours offered of king *Mithridates*: found out the way and meanes to make wine holesome and medici-

A medicinable for ſicke folke: and recoveted a man to his former ſtate of health, who was carried forth upon his beire to be buried: and laſtly he attained to the greateſt name, for laying a wager againſt fortune, and pawning his credite ſo farre, as hee ſhould not to be reputed a Phyſician, in caſe he ever were knowne to be ſicke, or any way diſeaſed. And in truth the wager hee woon. For his hap was to live in health untill he was very aged, and then to fall downe from a paire of ſtaires and ſo to die ſuddainely. A ſingular teſtimonie of skill and cunning *M. Marcellus* gave unto *Archimedes* that notable Geometrician and Enginer of Syracuſa, who in the ſaccage and rifling of that cittie, gave expreſſe commaundement concerning him alone, that no violence ſhould bee done unto his perſon: howbeit his will failed of execution, by occaſion of a ſoldior, who in that hurliburly ſlew him, and knew not who he was. Much commended & praiſed is *Cteſiphon* of Gno-
B ſos for his notable knowledge in Architecture, and namely, for the wonderfull frame of *Dianaes* temple at Epheſus. *Philon* likewiſe was highly eſteemed for making the Arſenall at Athens, able to receive a thouſand ſhips. *Cteſibius* alſo was much accounted of for deviſing wind inſtruments: and by the meanes of certaine engines to draw and ſend water to any place. *Dinocrates* moreover the Enginer, immortaliſed his name for caſting the plot, and diviſing the Modell of Alexandria in Ægypt, at what time as *Alexander* the greate founded it. To conclude, this mightie prince and commander *Alexander*, ſtreightly forbad by expreſſe edict, That no man ſhould draw his pourtrait in colours, but *Apelles* the painter: that none ſhould engrave his perſonage, but *Pyrgoteles* the graver: and laſt of all, that no workman ſhould caſt his image in braſſe, but *Lyſippus* the founder. In which three feats, many Artiſanes have excelled for their rare workmanſhip.

C

Chap. xxxviii.

& *Singular workes of Artificers.*

KIng *Attalus* cheapened one picture wrought by *Ariſtides* the Thebane painter, and bad a hundaed talents for it. *Cæſar* the Dictatour offered unto *Timomachus* eight talents for two pourtraits, to wit, of *Medea* and *Aiax*, which hee meant to ſet up and conſecrate in the temple of *Venus Genetrix*, *i.* Mother *Venus*. King *Candaules* bought of *Butarchus* a painted table, wherein was drawne the defeature and deſtruction of the Magnetes, which tooke up no great roume, and weighed out the poiſe thereof in good gold. King *Demetrius* ſurnamed *Expugnator*
D [*i.* the conquerour and great forcer of citties] forbare to ſet Rhodes on fire, becauſe hee would not burne one painted table, the handie worke of *Protogenes*. *Praxiteles* was ennobled for a rare Imager, and cutter of ſtones and marble: hee eterniſed his memoriall by making one image of *Venus*, for the Gnidians, ſo lively, that a certaine young man became ſo amorous of it, that he doted for love thereof, and went beſides himſelfe: which peece of worke was eſteemed of ſuch price by king *Nicomedes*, that whereas the Gnidians owed him a great ſum of money, hee would have taken it for full paiment and ſatisfaction of the whole debt. The ſtatue of *Iupiter Olympius* is to be ſeene, and daily commendeth the workeman *Phydias*. *Iupiter* likewiſe *Capitolinus*, and *Diana* in Epheſus yeeld good teſtimonies of *Mentors* cunning: & the tooles or inſtruments of the ſaid workeman were conſecrated (for their exquiſite making) unto them in their temples, and there
E remaine.

Chap. xxxix.

& *Of ſervants and ſlaves.*

IHave not knowne or hard to this day of a man borne a ſlave, that was priſed ſo high as *Daphnis* the Grammarian was: for *Cn. Piſaurenſis* held him at 300700 Seſterces to *M. Scaurus* a great man, and a principall perſon of Rome. Howbeit, in this our age certaine ſtage plaiers have gone beyond this price, and that not a little: marry they were ſuch as had bought out their freedome before, and were not then ſlaves. And no marvell, for wee find upon record, That the great
F actor *Roſcius* in former time might yeerely diſpend by the ſtage 500000 Seſterces. Vnleſſe a man deſire in this place to heare of the Treaſurer and purveiour generall of the armie in Armenia for the late wars of king *Tyridates*, who was enfranchiſed by the meanes of *Nero*, for 120000 Seſterces. But it was the warre that coſt thus much, and not the man. Like as *Sutorius Priſcus* gave unto *Seianus* 3500 Seſterces, for *Pæzon*, one of his guelded Eunuches: for a man would ſay this

was

was more for to satisfie his filthie lust, than for any especiall beautie to be seen in the said *Pæzon*. G
But hee took the vantage of the time, and went cleere away with this impious villanie: for at what time às hee bought him, the citie was in perplexitie and sorrow, and no man for thinking of greater affaires and troubles, had any leisure to find fault or say a word in reproofe of such enormities.

Chap. xl.

The excellencie of Nations.

DOubtlesse it is, and past all question, that of all nations under the sunne, the Romanes excell and are the onely men for all kind of vertues: but to determine who was the happiest man in all the world, it is above the reach of humane wit; considering that some take contentment and repose felicitie in this thing, others in that; and every one measureth it according to his severall fancie and affection: but to say a truth and judge aright indeed, laying aside all the glosing flatteries of Fortune, and without courting her to determine this point, There is not a man to be counted happie in this world. Right well it is of our side, and Fortune dealeth in exceeding favour with us, if we may not justly be called unhappie: for, set case there be no other miserie and calamitie besides, yet surely a man is ever in feare least Fortune will frown upon him and doe him a shrewd turne one time or another: and admit this feare once, there can be no sound happinesse and contentment in the mind. What should I say moreover to this, That there is not a man, at all times wise and in his perfect wits? Would God that this were taken of most men for a poëts word only, and not a true said saw indeed. But such is the vanitie and follie of poore mortall men, that they flatter themselves, and are verie wittie to deceive themselves, making their accounts and reckonings of good and evill fortune, like to the Thracians; who by certaine white and blacke stones which they cast into a certaine vessell, and there laid up, for the better proofe and triall of every daies fortune; and at their last day and time of death they fall to parting these stones one from another and telling them apart: and according to the number of the white and the blacke, give judgement and pronounce of ech ones fortune. But what say they to this, that many times it falleth out that the day marked with a white stone for a good day, had in it the beginning and overture of some great misfortune and calamitie? How many a man hath seemed to fall into fortunes lap, and entred upon great empires and dominions, which in the K
end turned to their afflictions and miseries? How many have wee seene overthrowne, punished extreamely, and brought to utter ruine, even by the meanes of their owne good parts and commendable gifts? Certes these be good things and great favours, if a man could make full account to enjoy them but one houre with contentment. But thus verily stands the case, and this is the ordinarie course of this world; one day is the judge of another, and the day of death judgeth and determineth all: and therefore there is no trust in them, neither may wee assure our selves of any. To say nothing of this, That our good fortunes are not in number æquall to our bad: and say there were as many of the one as the other, Is there any one joy and mirth to be weighed in true ballance against the least griefe and sorrow that commeth? Foolish and sottish men that wee L
are with all our curiositie! for we reckon our dayes by tale and number, whereas we should ponder and peise them by weight.

Chap. xli.

Of the highest tipe and pitch of felicitie.

Lampido a Lacedæmonian ladie, is the onely woman that ever was knowne, to have been the daughter to a king, a kings wife, and mother of a king. Also *Pherenice* was knowne alone to be the daughter, sister, and mother to them that wan the victorie and carried away the best prize at the Olympian games. In one house and race of the *Curioes*, there were knowne to have been three excellent oratours one after another, by descent from the father to the sonne. M
The onely familie and line of the *Fabij* affourded three Presidents of the Senate in course, one immediatly under another, to wit, *M. Fabius Ambustus* the father, *Fabius Rullianus* the sonne, and *Q. Fabius Gurges* the nephew.

Chap.

A

Chap. xlii.

☞ *Examples of Fortunes mutabilitie.*

INfinite examples otherwiſe wee have of the varietie and inconſtancie of Fortune: for what great joyes to ſpeake of gave ſhe ever, but upon ſome miſhap or other? Againe, the greateſt miſeries and calamities that have beene, have they not enſued upon the moſt joyes and contentments?

Chap. xliii.

☞ *Of one twiſe outlawed and out of protection: as alſo of Q. Metellus, and L. Sylla.*

B

FOrtune preſerved for ſixe and thirtie yeeres *M. Fiduſtius* a Senator, outlawed by *Sylla*: yet was his hap afterwards to be outlawed the ſecond time: for hee over-lived *Sylla* and continued unto the time of *Marcus Antonius*; and for certaine it is knowne, that by him he was baniſhed and outlawed againe, for no other reaſon but becauſe hee had been ſo before time. So kind was Fortune to *P. Ventidius*, as that ſhee would have him triumph alone over the Parthians: but ſhee had been before-time ſo good as to play with him, when ſhee ſaw him led (being a boy) as priſoner in *Cn. Pompeius Strabo* his triumph for the deffeiture and overthrow of the Aſſulanes. Although *Maſſurius* teſtifieth, that he was ſo led in triumph as a ſlave twiſe; *Cicero* ſaith,

C that he was at firſt but a mulitier & drave mules laden with meale for the oven, to ſerve the camp. Many other affirme, that in his youth he was a poore ſouldier, and ſerved as a footman in his ſingle trouſſes and grieves. Moreover, ſuch good fortune had *Balbus Cornelius*, as to be the Senior Conſull and declared Elect, before his fellow: but before-time he had been in trouble and judicially accuſed, yea and a jurie was empanelled to goe of him, ſo as in daunger he was to be whipped, upon their verdict. Well, this mans hap for all this, was to be the firſt Romane Conſull of forreiners, and namely, Ilanders within the maine ocean: hee (I ſay) attained to that place of

D dignitie, which our fore-fathers denyed flatly to the Latines their neighbours. Among other notable examples, *L. Fulvius* may goe for one, who was Conſull of the Tuſculans when they revolted and rebelled againſt the Romanes: howbeit forſaking his owne citizens and returning to Rome, was preſently by the whole people advaunced to the ſame honour among them: and hee was the man alone knowne to have triumphed at Rome over them whoſe Conſull hee was, even the ſame yeere that he was himſelfe a Romane enemie in the field. *L. Sylla* was the only man untill our time, that challenged to himſelfe the ſurname of *Fœlix*, *i.* happie, or fortunate. But how was he adopted as it were into this name? forſooth even by ſhedding and ſpilling ſo much blood of good Romane citizens, and by waging warre againſt his native country. And whereupon, I pray you, grounded he this happineſſe of his, and had ſo great an opinion thereof, if this were not it, That hee was able to baniſh, confiſcate, and put to death, ſo many thouſand citizens? O falſe and deceitfull interpretation, daungerous, unhappie, and pernicious, even to poſteritie and the time to come! For were not they more bleſſed and happie, who then fortuned to looſe their

E lives, whoſe death at this day wee pittie, and whome we take compaſſion of, than *Sylla*, whome there is no man living at this day but he hateth and abhorreth? Moreover, was not his end more cruell and horrible, than the miſerie of all thoſe that by him were outlawed and their goods forfeit? for his owne wretched bodie did eat, gnaw, and conſume it ſelfe, and bred daily and hourely vermine to put the ſame to paine and torment. And ſay that hee diſſembled all this, and would not be knowne of it; and ſuppoſe we gave credit to that laſt dreame of his (wherein hee lay as it were dead and in a traunce) upon which he gave out this ſpeech, That himſelfe and none but he had his glorie to ſurmount all Envie: yet in this one thing he plainly confeſſed, That his felicitie came ſhort and was defective, in that he had not time to conſecrate the Capitoll temple. *Q. Me-*

F *tellus* in that funerall oration of his which he made in praiſe and commendation (as the manner was) for *L. Metellus* his father, gave theſe lawdable reports of him, That he had been the ſoveraigne Pontifie or high prieſt of Rome, twiſe Conſull, Dictatour, Generall of the horſe, one of the 15 Quindecemvirs deputed for diviſion of lands among ſouldiers and commons, and that in the firſt Punicke warre hee ſhewed many Elephants in a triumph: moreover he left in writing, That he had accompliſhed ten of the greateſt and beſt points belonging to this life; in ſeeking

whereof and in atteining thereunto, all the great Sages of the world spend their whole time: G
for (saith hee) his desire was, and therto he aimed, namely, to be a most doubtie and hardie warriour, an excellent orator, a right valiant captaine and commaunder: *Item*, to have the conduct, charge, and execution of the greatest and most important affaires, to be in the highest place of honour, to be singular for wisdome, to be accounted the principall and chiefe in Senat, to come to great wealth and riches by good and lawfull meanes, to leave much faire issue behind him: and to conclude, to be simply the best man of all other, and the noblest personage in the cittie. To these perfections, he and none hut he since the time that Rome was Rome, attained. Now to confute this, were a long and needlesse peece of worke, considering that one onely mischance checked these favours of Fortune, and fully disprooved all: for the very same *Metellus* became blind in his old age: for he lost both his eyes in a skare-fire, at what time as he would have saved H
and got away the Palladium, *i.* the image of *Minerva*, out of the temple of *Vesta*. His act, I confesse, was vertuous and memorable, but the event was ill for him and miserable. In regard whereof, I know not how he should be called unhappie and wretched: and yet I see not why he should be named happie and fortunate. This I must needs say in conclusion, that the people of Rome graunted unto him that priviledge, that never man before him in the world was known to have, namely, to ride in his coach to the Senat-house so oft as hee went to sit at the councell table. A great prerogative I confesse, and most stately, but it was allowed him for the want of his eyes.

Chap. xliiii.

Of another Metellus. I

A Sonne likewise of this *Q. Metellus*, who gave out those commendations aboveſaid of his father, may be put in the ranke of the most rare precedents of felicitie in this world: for over and besides the most honourable dignities and promotions that hee was advaunced unto in his life time, and the glorious addition and surname of *Macedonicus*, which hee got in Macedonie; when he was dead, there attended upon his dead corps at his funerals to interre it, foure sonnes of his; the one Pretor for the time being: the other three had been Consuls in their time: and of these three, two had triumphed in Rome, and the third had ben Censor. These were points, I may tell you, of great marke and regard, and few men are to be found in comparison, that can come to any one of them. And yet see! in the very prime and flower of all these K
honours, it fortuned that *Catinius Labeo* surnamed *Macerio*, a Tribune or protector of the commons (whome he before-time by vertue of his Censorship had displaced out of the Senat) waited his time when he returned about noone from *Mars* field, and seeing no man stirring in the market place nor about the Capitoll, tooke him away perforce to the cliffe Tarpeius, with a full purpose to pitch him downe headlong from thence, and to breake his necke. A number came running about him of that crew and companie, which was wont to salute him by the name of Father; but not so soone as such a case required, considering this so sodaine an occurrent: and when they were come, went but slowly about any rescue, and kept a soft pace as if they had waited upon some corps to a buriall: and to make resistance and withstand perforce the Tribune, armed with his sacrosanct and inviolable authoritie, they had no warrant by law: in so much as he L
was like to have perished and come to a present mischiefe, even for his vertue and faithfull execution of his Censorship, had there not been one Tribune of ten found, hardly and with much adoe to step betweene, and oppose himselfe against his colleague, and so by good hap rescued him out of his clutches, and saved him as it were at the very pits brinke, even from the utmost point of death. And yet he lived afterwares of the courtesie and liberalitie of other men: for why? all his goods from that day forward, were seized as forfeit and confiscate, by that Tribune whom before-time he had condemned: as if he had not suffred punishment and sorrow enough at his hands, to have his necke so writhed by him, as that the bloud was squeased out at his verie eares. Certes, for mine owne part, I would reckon this for one of his crosses and calamities, That he was an enemie to the later *Africanus Æmylianus*, even by the testimonie and confession of M
Macedonicus himselfe. For after the death of the said *Africanus*, these were his words unto his owne sonnes: Go your waies sirs, and doe honour unto his obsequies, for the funerals of a greater personage and a better cittizen, shall ye never see. And this spake hee to them, when as they had conquered Creta and the Baleare Ilands, and therof wer surnamed *Creticus* and *Balearicus*,

and

A and had worne the lawrell diademe in triumph: being himſelfe alreadie entituled with the ſtile of *Macedonicus*, for the conqueſt of Macedonie. But if wee conſider and weigh that onely wrong and injurie offered unto him by the Tribune, who is it that can juſtly deeme him happie, being expoſed ſo as he was to the pleaſure, mercie, and devotion of his enemie, farre inferiour to *Africanus*, and ſo to come to confuſion? What were all his victories to this one diſgrace? what honours and triumphant charriots ſtrooke not fortune downe with her foot, and overturned all againe, or at leaſt wiſe ſet not backe againe with this her violent courſe, ſuffering a Romane Cenſor to bee haled and tugged in the very heart of the cittie (the onely way indeed to bring him to his death) to be harried I ſay up to that capitoll hill, there to make his end, whether aforetime he aſcended triumphant, but never committed that outrage upon thoſe priſoners and captives,
B whom he led in triumph, and for whoſe ſpoiles he triumphed, as to hale and pul them in that rude ſort? And verily, the greater was this outrage, and ſeemed the more heinous, in regard of the felicitie which afterwards enſued: conſidering, that this *Macedonicus* was in danger to have loſt ſo great an honour as he had in his ſolemne and ſtately ſepulture, namely, wherein hee was carried forth to his funerall fire, by his triumphant children, as if hee had triumphed once againe at his very buriall. In ſumme, that can bee no ſound and aſſured felicitie which is interrupted by any indignitie or diſgrace whatſoever, much leſſe then by ſuch an one as this was. To conclude, I wot not well whether there be more cauſe to glorie for the modeſt carriage of men in thoſe daies, or
C to greeve at the indignitie of the thing, in that among ſo many *Metelli* as then were, ſo audacious a villaine as this was of *Catinius*, was never revenged to this day.

Chap. xlv.

Of Auguſtus Ceſar, late Emperour.

AS touching the late Emperour *Auguſtus*, whome all the world raungeth in this ranke of men fortunate: if we conſider diligently the whol courſe of his life, we ſhall find the wheele to have turned often, and perceive many chaunges of variable Fortune. Firſt and formoſt his owne vncle by the mothers ſide put him by the Generalſhip of the horſe; and notwithſtanding all his earneſt ſuite, preferred *Lepidus* to that place before him: ſecondly, he was noted and thought hardly of for thoſe outlawries of Romane cittizens, and thereby purchaſed himſelfe
D much hatred and diſpleaſure: tainted alſo he was for being one of thoſe three in the Triumvirate, yoked and matched with wicked companions and moſt daungerous members to the weale publick: and this galled him the more, That in this fellowſhip, the Romane Empire was not equally and indifferently parted among them three, but *Antonie* went away with the greateſt ſhare by ods. Alſo his ill fortune was in the battaile before Philippos to fall ſicke, to take his flight; and for three daies, diſeaſed as he was, to lurke and lye hidden within a marriſh: whereupon (as *Agrippa* and *Mecænas* do confeſſe) he grew into a kind of dropſie, ſo as his belly and ſides were puft up and ſwelled with a wateriſh humor gotten and ſpred between the fleſh and the skin. Furthermore he ſuffred ſhipwracke in Sicily, and there likewiſe he was glad to skulke within a cave in the
E ground. What ſhould I ſay, how when he was put to flight at ſea, and the whole power of his enemies hard at his heels, he beſought *Proculeius* in that great danger to rid him out of his life: how he was perplexed for the quarels and contentions at Peruſium: in what fear and agonie he was in the battell at Actium (a towne of Albanie,) as alſo for the iſſue of the Pannonian war, for the fall of a bridge, and a towne both. So many mutinies among his ſouldiours: ſo many daungerous diſeaſes that put him to a plung. The jelouſie and ſuſpition that he had evermore of *Marcellus*. The reproch and ſhame that he ſuſtained for confining and baniſhing *Agrippa*: his life ſo many times laid for, by poiſon and other ſecret traines: the death of his children, ſuſpected to have beene
F wrought by indirect meanes: the double ſorrow and greefe of heart thereby: and not altogether for his childleſſe eſtate: the adulterie of his owne daughter, and her purpoſe of taking his life away, detected and made knowne to the world: the reprochfull departure and ſlipping aſide of *Nero*, his wives ſonne: another adulterie committed by one of his neeces. Over and above all this, thus many croſſes more and troubles comming one in the necke of another: namely, want of pay for his ſouldiours: the rebellion of Slavonia: the muſtering of ſlaves and bond-ſervants to make up his armie, for want of other able youths to levie unto the warres: peſtilence in Rome citie: famine & drought univerſally through Italie: and that which more is, a deliberate purpoſe

and

and resolution of his to famish and pine himselfe to death, having to that end fasted 4 dayes and foure nights, and in that time received into his bodie the greater part of his own death. Besides, the overthrow and rout of *Varius* and his forces, the foule staine and blemish to the touch of his honour and majestie very neer: the putting away of *Posthumius Agrippa* after his adoption, and the misse that he had of him after his banishment: then, the suspicion that he conceived of *Fabius*, for disclosing his secrets: adde hereto, the opinion and conceit that he tooke of his owne wife and *Tiberius*, which surpassed all his other cares. To conclude, that god, and hee who I wot not whether he obtained heaven or deserved it more, departed this life, and left behind him for his heire to the crowne, his enemies sonne.

Chap. xlvi.

Whome the Gods iudge most happie.

I Cannot over-passe in this discourse and consideration, the Oracles of Delphos, delivered from that heavenly god to chastise and represse as it were, the folly and vanitie of men: and two there be which give answer to the point in question, after this manner: First, that *Phedius* (who but a while before died in the service of his countrey) was most happie. Moreover, *Gyges* (the most puissant K. in those daies of al the earth) sent a second time to know of the Oracle, Who was the happiest man next him? and answer was made, That *Aglaus Psophidius* was happier than the former: now this *Aglaus* was a good honest man well stept in yeeres, dwelling in a very narrow corner of Arcadia, where he had a little house and land of his own, sufficient with the yeerly commodities thereof to maintaine him plentifully with ease; out of which hee never went, but employed himselfe in the tillage and husbandrie thereof, to make the best benefite he could: in such sort, that (as it appeared by that course of life) as he coveted least, so he felt as little trouble and adversitie while he lived.

Chap. xlvii.

Who was canonized a god, here upon earth living.

BY the ordinance and appointment of the same Oracle, as also by the assent and approbation of *Iupiter* the soveraigne God, *Euthymus* the famous wrestler (who evermore wan the best prize at Olympia, save once) was reputed and consecrated a god whiles he lived, and knew thereof: borne he was at Locri in Italie, where one statue of his, as also another at Olympia, were both upon one day strucken with lightning: whereof I see *Callimachus* wondred at, as if nothing else were worthie admiration, and gave order that he should be sacrificed unto as a god: which was performed accordingly, both whiles he lived and after he was dead. A thing, that I marveile more at than any thing else, That the gods were therewith contented, and would permit such a dishonour to their majestie.

Chap. xlviii.

Of the longest lives.

THe tearme and length of mans life is uncertein, not only by reason of the diversitie of climats, but also because the Historians have delivered such varietie of mens ages, and every man by himselfe hath a severall time limited unto him, at the very day of his nativitie. *Hesiodus*, the first writer (as I take it) who hath treated of this argument, and yet like a poët, in his fabulous discourse as touching the age of man, saith forsooth, That a crow liveth 9 times as long as we; and the harts or stags 4 times as long as the crow; but the ravens thrice as long as they. As for his other reports as touching the Nymphes and the bird Phœnix, they are more like poëticall tales, than historicall narrations. *Anacreon* the poët maketh report, that *Arganthonius* king of the Tartessians, lived 150 yeeres: and *Cynaras* likewise king of the Cyprians, ten yeeres longer. *Theopompus* affirmeth, that *Epimenides* the Gnossian, died when he was 157 yeeres old. *Hellanicus* hath written, that among the Epians in Ætolia, there be some that continue ful two hundred yeeres: and with him accordeth *Damases*; adding moreover, that there was one *Pictoreus* among them, a man of exceeding stature, mightie and strong withall, who lived 300 yeeres.

Ephorus

A *Ephorus* testifieth, that ordinarily the KK. of Arcadia were 300 yeers old ere they died. *Alexander Cornelius* writeth of one *Dando* a Sclavonian, that lived 500 yeers. *Xenophon* in his treatise of old age, maketh mention of a king of the Latines, or as some say, over a people upon the sea coasts, who continued alive 600 yeeres: and because he had not lied loud enough already, he goeth on still and saith, That his sonne came to 800. All these strange reports proceed from the ignorance of the times past, and for want of knowledge how they made their account: for some reckoned the summer for one yeere, and the winter for another. There were againe, that reckoned everie quarter for a yeer, as the Arcadians, whose yeere was but three moneths. Ye shall have some, and namely the Ægyptians, that count every chaunge or new moone, for a yeere: and therefore no marveile if some of them are reported to have lived 1000 yeeres. But to passe from these uncer-
B teinties to things confessed and doubtlesse, held it is in manner for a certaine truth, that *Arganthinus* king of Calis, reigned full 80 yeeres: and it is supposed, that 40 yeeres old he was when he came first to the crowne. And as undoubted ttue it is, that *Masanissa* ware the crowne 60 yeeres: as also that *Gorgias* the Sicilian lived untill hee was 108 yeeres old. As for *Q. Fabius Maximus* (a Romane) he continued Augure 63 yeeres. *M. Perpenna*, and of late daies *L. Volusius Saturninus*, out-lived all those Senators who sat in counsell with them when they were Consuls, & whose opinions they were wont to aske. As for *Perpenna*, when he died, left but 7 of those Senators alive whom he had either chosen or re-elected in his Censorship: & he lived himself 98 yeers. Where by the way one thing commeth unto my mind worth the noting, That one Lustrum or 5 yeeres space there was, and never but one, in which there died not a Roman Senator: and that was from
C the time that *Flaccus* and *Albinus* the Censors, finished their survey and solemnly purged the citie after the order, unto the comming in of the next new Censors; which was from the yeere after the foundation of Rome 579. *M. Valerius Corvinus* lived 100 yeers complet: between his first Consulate and sixt, were 46 yeers: he tooke his seat upon the yvorie chaire of estate, and was created a magistrate Curule 21 times; and no man ever besides him, so often. *Metellus* the Pontifie or soveraigne Priest, lived full as long as he.

To come now to women: *Livia* the wife of *Rutilius* lived 97 yeers with the better. *Statilia* a noble ladie of Rome, in the time of *Claudius* the Emperor, was knowne to be 99 yeers of age. *Ciceros* wife *Terentia* out-lived her husband, untill she was 103 yeers old. *Clodia* wife to *Ofilius*, went beyond her, and saw 115 yeers, and yet she had in her youth 15 children. *Lucceia* a common vice
D in a play, followed the stage and acted thereupon 100 yeeres. Such another vice that plaied the foole and made sport betweene whiles in enterludes, named *Galeria Copiola*, was brought againe to act her feats upon the stage, when *Cn. Pompeius* and *Q. Sulpitius* were Consuls, at the solemne plaies vowed for the health of *Augustus Cæsar* the Emperour, when she was in the 104 yeere of her age: the first time that ever she entred the stage to shew proofe of her skill in that profession, was 91 yeers before, and then she was brought thither by *M. Pomponius* an Ædile of the Commons, in the yeere that *C. Marius* and *Cn. Carbo* were Consuls. And once againe *Pompeius* the Great, at the solemne dedication of his stately Theatre, trained the old woman to the stage for to make a shew, to the wonder of the world. Moreover, *Asconius Pædianus* is mine author, that one *Samula* lived 110 yeeres: and therefore I marveile the lesse, that one *Stephanio* (who was the
E first of the long robe that brought up dauncing and footing upon the stage) plaied his part and daunced in both the Secular plaies, as well those that were set out by *Augustus* late Emperour, as which *Claudius Cæsar* exhibited in his 4 Consulate, considering that betweene the one and the other there were but 63 yeeres: and yet lived *Stephanio* many a day after. *Mutianus* witnesseth, that in Tempsis (for so they call the crest or pitch of the mountaine Tmolus) folke lived ordinarily 150 yeeres. At that age, *T. Fullonius* of Bononia entred his name into the subsidie booke, at the time that *Claudius Cæsar* held the generall taxe: and that hee was so old indeed, appeared truly as well upon record in the Registers office, by conferring and laying togither severall paiments that he had made from time to time, as also by certain things that he had seen and known done in his life time (for the Emperor had a special care & regard that way to find out the truth.)

Chap. xlix. *Of the divers Horoscopes, or nativities of men.*

THis point would require the conference and advice of Astrologers: for *Epigenes* saith, that it is not possible for a man to live an hundred and two and twentie yeeres: and *Berosus* is of opinion, that one cannot passe an hundred and seventeene. The proportion and reckoning

koning holdeth still for good which *Petosiris* and *Necepsos* calculated and grounded upon their G
Quadrant, which they call *Tetartemorion*, that is to say, the compasse in the Zodiacke of three signes (Orientall, which determine of the life or death of men) according to which account it is evident, that in the tract or climat of Italie, men may reach to a hundred twentie and six yeeres. The above-named Astrologers affirmed, that a man could not possibly passe the space of 90 degrees from the Ascendent or erection of his nativitie (which they call Anaphoras) and that even this course through the degrees of three signes, is many times interrupted and cut short, either by the opposition and encounter of some wicked planets, or by the maligne aspects of them or the sunne. On the other side, *Asclepiades* and his sect affirme, that the length of our life proceedeth from the influence of the [fixed] starres: but as touching the utmost tearme therof, they set downe nothing definitively: mary thus much they say, That the fewer sort of men live any H
long time; for that the greatest number by farre, have their nativitie incident and liable to the daungerous houres and times either of the moones occurrence (as in her Quadrature, Opposition, and Sextile aspect) or of daies according to the number of seven or nine (which are daily and nightly marked and observed:) wherupon ensueth the rule of the dangerous graduall yeers, called Climactericke: and such as are in that wise borne, lightly live not above foure and fiftie yeeres. But here may wee see by the doubtfulnesse and incertitude of this Science of Astrologie, how uncertein this whole matter is which we have in hand. Over and besides, we found the contrarie by experience, and many examples; and namely, in the last taxation, numbring, and review of the provinces subject to Rome within Italie, that was taken under the *Cæsars Vespasians* the father and the sonne, both Emperours and Censors. And here we need not to search every corner, and to ransacke every place narrowly; wee will onely give instance and set downe the I
examples of the one moitie thereof, namely that tract which lyeth betweene Apennine and the Po. At Parma, three men were found that lived a hundred and twentie yeeres: at Brixels, one that was an hundred twentie and five yeeres old: at Parma moreover two, an hundred and thirtie yeeres of age: at Plaisance, one elder by a yeere: at Faventia, there was one woman an hundred thirtie and two yeers old: at Bononie, *L. Terentius* the sonne of *Marcus*, and at Ariminum *M. Aponius*, reckoned each of them an hundred and fiftie yeeres. *Tertulla* was knowne to be an hundred thirtie and seven yeeres old. About Plaisance, there is a towne situate upon the hills, named Velleiacium, wherein six men brought a certificate, that they had lived an hundred yeeres apeece: foure likewise came in with a note of an hundred and twentie yeeres: one, of an hundred and fourteen, namely *M. Mutius* sonne of *Marcus* surnamed *Galerius Fœlix*. But because we will not dwell long in a matter so evident and commonly confessed: in the review taken of the eigth region of Italie, there were found in the roll, foure and fiftie persons of an hundred yeeres of age: 57, of an hundred and ten: two, of an hundred and five and twentie: foure, of an hundred and thirtie: as many that were 135 or 137 yeeres old: and last of all, three men of an hundred and fortie. Let us leave these ages, and consider a while another inconstant varietie in the nature of mortall men: *Homer* maketh report, that *Hector* and *Polydamas* were borne in one night, men so different in nature and qualitie. Whiles *C. Marius* was Consull and *Cn. Carbo* with him, who had beene twise before Consull, the fifth day before the calends of Iune, *M. Cæcilius Ruffus* and *C. Licinius Calvus* were borne upon a day, and both of them verily prooved great Orators: but they sped not alike, but mightily differed one from the other in the end. And this is a thing seene daily to happen throughout the world, considering that in one houre kings and beggers are borne, likewise lords and slaves.

Chap. L.

Sundrie examples of divers diseases.

Pub. Cornelius Rufus, who was Consull togither with *M. Curius*, dreamed that hee had lost his sight: and it prooved true indeed, for in his sleepe he became blind and never saw again. Contrariwise *Phalereus* [or *Iason Phæreus*] being given over by the Physicions for an impostume that he had in his chest, in despaire of all health (purposing to kill himselfe for to be rid out of his paine) stabbed his breast with a knife; but he found this deadly enemie to be his onely Physicion. *Q. Fabius Maximus* being long sicke of a quartane ague, strucke a battaile with the people of Savoy and Auvergne neer the river Isara, upon the sixt day before the Ides of August,

wherein

A wherein hee ſlew of his enemies 13000, and therewith was delivered from his fever, and never had fit more. Certes, this gift of life that wee have from Nature, be it more or be it leſſe, is fraile and uncertein: and ſay that it be given to any in largeſt meaſure; it is but ſcant yet and very ſhort, yea and of ſmall uſe, if we conſider the whole courſe thereof from the beginning to the end. For firſt, if we count our repoſe and ſleepe in the night ſeaſon, a man may be truly ſaid to live but the one halfe of his life: for ſurely a good moitie and halfe deale thereof which is ſpent in ſleeping, may be likened well to death: and if hee cannot ſleepe, it is a paine of all paines and a very puniſhment. I reckon not in this place the yeeres of our infancie, which age is void of reaſon and ſenſe; ne yet of old age, which the longer that it continueth, the more are they plagued that be in it. What ſhould I ſpeake of ſo many kinds of daungers, ſo many diſeaſes, ſo many feares, ſo
B many penſive cares, ſo many prayers for death, as that in manner we pray for nothing oftner? In which regards, how can a man be ſaid to live the while? and therefore Nature knoweth not what better thing to give a man, than ſhort life. Firſt and formoſt, the ſenſes waxe dull, the members and limmes grow benummed, the eye-ſight decayeth betimes, the hearing followeth ſoon after, then faile the ſupporters, the teeth alſo and the verie inſtruments that ſerve for our food and nouriſhment: and yet forſooth, all this time ſo full of griefe and infirmities, is counted a part of our life. Hereupon it is taken for a miraculous example, and that to which againe we cannot find a fellow, That *Xenophilus* the muſitian lived 105 yeeres, without any ſickneſſe or defect in all his bodie. For all other men, beleeve me, are vexed at certaine houres (like as no other creatures beſides) with the peſtiferous heats and ſhaking colds of the fever in every joynt, ſinew,
C and muskle of the bodie, which goe and come, keeping their times in their ſeverall fits, not for certaine houres in a day onely, but from one day to another, and from night to night; one while every third day or night, other-whiles everie fourth, yea and ſometime a whole yeere togither. Moreover, what is it but a very diſeaſe, To know the time and houre of a mans owne death, and ſo to die forſooth in wiſdome? For maladies there be, in which Nature hath ſet downe certaine rules and laws: and namely, a quartane fever never lightly beginneth in the ſhorteſt daies of the yeere, neither in the three moneths of winter, [to wit, December, Ianuarie, and Februatie.] 3
Some diſeaſes are not incident to thoſe that are above 60 yeeres of age: others againe, do end and paſſe away when youths begin to be under-growne, and eſpecially this is obſerved in young maidens. Moreover, old folke of all other are leaſt ſubject to take the plague. Furthermore, ſick-
D neſſes there be, that follow this region or that; aſſailing and infecting the inhabitants generally therein. There be ſome againe, that ſurprize and take hold of ſervants onely, both all and ſome: others touch the beſt perſons alone of the higheſt calling, and ſo from degree to degree. But in this place, obſerved uſually it is by experience, That a peſtilence beginning in the South parts, goeth alwaies toward the Weſt; and never lightly but in winter, neither continueth it above three moneths. 3

Chap. LI.

& Of the ſignes of death.

E NOw let us take a view of deadly tokens in ſickneſſe. In rage and furious madneſſe, to laugh is a mortall ſigne. In phrenſie, wherein men are beſtraught of their right wits, to have a care of the skirts, fringes, and welts of their garments, that they be in good order; to keepe a fumbling and pleiting of the bed-cloths; the neglect of ſuch things as would trouble them in their ſleepe and breake it; the voluntarie letting goe of their water; prognoſticate death. A man may ſee death alſo in the eies and noſe moſt certainly of all other parts: as alſo in the manner of lying; as namely, when the patient lieth alwaies upon his backe with his face upward. We gather ſignes alſo, by the uneven ſtroke of the arterie: as alſo when the pulſe beateth ſo under the Phyſicians hand, as if he felt an ant creeping under it. Other ſignes moreover there be which *Hippocrates*, the prince and cheefe of all Phyſicians, hath very well obſerved and ſet down. Now,
F whereas there bee an infinite number of ſignes that preſage death: there is not knowne ſo much as one that can aſſure a man certainely of life and health. For *Cato* that famous Cenſor, writing to his ſonne as touching this argument, hath delivered, as it were out of an Oracle, That there is an obſervation of death to be collected even in them that are in perfect health. For (ſaith hee) youth reſembling age, is an undoubted ſigne of untimely death, or ſhort life. As for diſeaſes, they

* i. Lise. are so innumerable, that *Pherecydes* of the Island Syros, died of a great quantitie of * creepers that came crawling out of his bodie. Some are knowne to be never free of the ague, as *C. Mecœnas*. The same man for three yeeres together, before he died, never laid his eies together for sleep the minute of an houre. *Antipater Sidonius* the poet, once a yeere during his life, had an ague-fit upon his birth day onely. He lived for all that to be an old man, and upon the day of his nativitie died in such a fit.

Chap. lii.

Of such as were carried forth upon the biers to be buried, and revived againe.

A *Viola*, one that had been Consull, came againe to himselfe when he was cast or put into the funerall fire to be burnt: but because the flame was so strong that no man could come neere to recover him, burnt he was quick. The like accident (as it is reported) befell to *Lu. Lamia*, Pretour lately before. As for *C. Ælius Tubero*, that he was brought alive againe from the like fire, after he had been Pretour of Rome, both *Messala Rufus*, and many besides, doe constantly affirme. See how it goeth with mortall men: see, I say, our uncertaine state and condition, and how wee are borne, exposed, and subject to these and such like occasions of fortune: insomuch, as in the case of man, there is not any assurance at all, no not in his death. We read in Chronicles, that the ghost of *Hermotimus Clazomenius* was woont usually to abandon his bodie for a time, and wandering up and downe into farre countries, used to bring him newes from remote places, of such things as could not possibly bee knowne, unlesse it had been present there: and all the while his bodie lay, as it were, halfe dead in a traunce. This manner it continued so long, untill the Cantharidæ, who were his mortall enemies, tooke his bodie upon a time in that extasie, and burnt it to ashes: and by that meanes disappointed his poor soule when it came back again, of that sheath, as it were, or case, where shee meant to bestow her selfe. Moreover, wee find in records, That the spirit or ghost of *Aristæas* in the Island Proconnesus, was seene evidently to flie out at his mouth in forme of a raven; and many a like tale followeth therupon. For surely I take it to be no better than a fable, which is in like manner reported of *Epimenides* the Gnosian; namely, that when he was a boy, he being for heat and travell in his journey all wearie, laid him downe in a certaine cave, and there slept 57 yeeres. At length he wakened as it were upon the next morrow, and wondered at such a suddaine chaunge of every thing that hee saw in the world, as if hee had taken but one nights sleepe. Hereupon forsooth, in as many daies after, as hee slept yeeres, hee waxed old. Howbeit hee lived in all 175 yeeres. But to returne unto our former discourse, women of all others by reason of their sex, are subject to this daunger, to bee reputed for dead, when there is life within them: and namely, by occasion of the disease of the Matrice, called the rising of the Mother: which, if it be brought againe and settled streight in the place, they soone recover and take breath again. Not impertinent to this treatise, is that notable and elegant book among the Greekes, compiled by *Heraclides*, where he writeth of a woman, that for a seven-night lay for dead, and fetched not her breath sensibly, who in the end was raised againe to life. Moreover, *Varro* reporteth, That upon a time when the twentie deputed commissioners were deviding lands in the territorie of Capua, there was one there carried forth in his bier to be burnt, & came home againe upon his feet. Also, that the like happened at Aquinum. Likewise, that in Rome one *Corfidius* who had married his owne aunt by the mothers side, after he had taken order for his funerals, and set out a certaine allowance therefore, seemed to yeeld up his ghost and die: howbeit he revived againe, and it was his chaunce to carie him forth indeed to buriall, who had provided the furniture before for his funerall. This *Varro* writeth besides, of other miraculous matters, which verily are worth the rehearsall at large. One of them is this. Two brethren there were, by birth and calling gentlemen of Rome: whereof the elder named *Corfidius*, happened (in all apparance) to die: and when his last will and testament was once opened and published, the younger brother, who was his heire, was verie busie and readie to set forward his funerall. In the meane while the man that seemed dead, fell to clap one hand against the other, and therewith raised the servants in the house: when they were come about him, hee recounted unto them, that hee was come from his younger brother, who had recommended his daughter to his tuition and guardenage: and moreover had shewed and declared unto him in what place hee had hidden certaine

A gold under the ground, without the privitie of any man: requesting him withall, to employ that funerall provision which he had prepared for him, about his owne buriall and sepulture. As hee was relating this matter, his brothers servitors came in great hast to the house of this elder brother, and brought word, that their maister was departed this life: and the treasure beforesaid was found in the place accordingly. And verily, there is nothing more common in our daily speech than of these divinations, but they are not to be weighed in equall ballance with these, nor to bee reported or credited all so confidently. For as much as for the most part they are meere lies, as we will prove by one notable example. In the Sicilian voiage it fortuned, that *Gabienus*, one of the bravest servitours that *Cæsar* had at sea, was taken prisoner by *Sex. Pompeius*: and by commaundement from him, his head was stricken off in a manner, and scarce hung to the necke by the skin,
B and so lay he all day long upon the sands in the shore. When it grew toward the evening, & that a companie were flocked about him, hee fetched a great grone, and requested that *Pompeius* would come unto him, or at leastwise send some one of his deere familiars that were neere unto him: and why? Come I am (quoth he) from the infernall spirits beneath, and have a message to deliver unto him. Then *Pompey* sent divers of his friends to the man, unto whom *Gabienus* related in this manner, That the infernall gods were well pleased with the just quarrell and cause of *Pompey*: and therefore hee should have as good an issue thereof as hee could wish. Thus much (quoth he) was I charged & commanded to deliver. And for a better proofe of the truth in effect, so soon as I have done mine errand, I shall forthwith yeeld up the ghost. And so it came to passe indeed. Histories also make mention of them that have appeared after they were committed to earth.
C But our purpose is to write of Natures workes, and not to prosecute such miraculous and prodigious matters.

Chap. LIII.

Of suddaine deaths.

AS for suddaine death, that is to say, the greatest felicitie and happinesse that can fall unto a man; many examples we have thereof, that alwaies seeme strange and marvellous, notwithstanding they are common. *Verrius* hath set forth a number of them, but I will keepe within a meane, and make choise of them all. Besides *Chilon* the Lacedæmonian, of whom wee
D spake before, there died suddainely for very joy *Sophocles* the Poet; and *Denis*, a king or tyrant of Sicilie: both of them upon tidings brought unto them, that they had won the best price among the tragicall Poëts. Presently after that famous defeature at Cannæ, a mother died immediately upon the sight of her sonne alive, whom by a false messenger shee heard to have beene slaine in that battel. *Diodorus* a great professed Logician, for very shame that he could not readily assoile a frivolous question, nor answere to some demands proposed by *Stilbo*, swouned and never came againe. Without any apparent cause at all that could be seene, divers have left their life: namely, two of the *Cæsars*, the one Pretour for the time being: the other who had borne that dignitie, the father of *Cæsar* the Dictatour: both of them in the morning when they were new risen,
E and putting on their shoes: the one at Pisæ, the former at Rome. In like manner *Q. Fabius Maximus* in his very Consulship, upon the last day of December, [which was the last also of his magistracie, if hee had lived longer] in whose place *Rebilus* made suit to bee Consull, for a very few houres that remained of that yeere. Semblably, *C. Vulcatius Gurges* a Senatour. All of them in perfect health, so lustie and well liking, that they thought to goe forth presently, and of nothing lesse than to die before. *Q. Æmylius Lepidus*, even as he was going out of his bed-chamber, hit his great toa against the dore side, and therewith died. *C. Ausidius* was gotten forth of his house, and as hee was going to the Senate, stumbled with his foot in the Comitium or common place of assemblies, and died in the place. Moreover, a certaine Embassadour of the Rhodians, who had to the great admiration of all that were present, pleaded their cause before the Senate, in the very entrie of the Counsell house, as he was going forth, fell downe dead, and never spake word.
F *Cn. Bæbius Pamphilus*, who had been Pretour, died suddainely, as he was asking a boy what it was a clocke. *A. Pompeius*, so soone as he had worshipped the gods in the Capitoll, and said his Oraisons, immediately died. So did *M. Iuventius Talva* the Consull, as he was sacrificing. And *Caius Servilius Pansa*, as hee stood at a shop in the market place, about eight of the clocke in the morning, leaning upon his brother *P. Pansa* his shoulders. *Bæbius* the judge, as hee was adjourning

ning the day of ones apparence in the court. *M. Terentius Corax*, whiles he was writing of letters G
in the market place. No longer since than the very last yeere, a knight of Rome, as he was talking with another that had been Consull, and rounding him in the eare, fell downe starke dead: and this happened before the yvorie statue of *Apollo*, which standeth in the Forum of *Augustus*. But above all others it is straunge, that *C. Iulius* a Chyrurgian, should die as he was dressing of a sore eie with a salve, and drawing his instrument along the eie. What should I say of *L. Manlius Torquatus*, a man who had beene sometime Consull, whose hap was to die sitting at supper, even in reaching for a cake or wafer upon the bourd. *L. Durius Valla* the Physician, died whiles hee was drinking a potion of mede or sweet honnie-wine. *Appius Ausius* being come out of the Baine, after he had drunke a draught of honied wine, as hee was supping of a rere egge, died. *P. Quintius Scapula*, as he was at supper in *Aquillius Gallus* his house. *Decimus Saufeius* the Scribe, as hee H
sat at dinner in his owne house. *Cornelius Gallus*, one who had beene lord Pretour, and *T. Ætherius* a Romane knight, died both in the very act of *Venus*, whiles they lay upon women. The like befell in our daies to two gentlemen of Rome, who died both as they were dealing contrarie to kind with one and the same counterfet jester named *Mithycus*, a youth in those daies of surpassing beautie. But of all others, *M. Ofilius Hilarus* an actor and plaier in Comedies, as it is reported by auncient writers, died most secure of death, and with the greatest circumstances about it. For after he had done much pleasure to the people, and made them sport to their contentment upon his birth day, he kept a feast at home in his house: and when the supper was set forth upon the table, he called for a messe of hot broth in a porrenger to drinke of: and withall, casting his eie upon the maske or visor that he put on that day, fitted it againe to his visage, and took off the chaplet or guirland from his bare head, and set it thereupon: in this habite, disguised as he sat, hee was starke dead and key cold before any man perceived it: untill he that leaned next unto him at the bourd, put him in mind of his pottage that it cooled, and when he made no answere again, they found in what case he was. These examples all be of happie deaths. But contrariwise, there bee an infinite number of those that are as miserable and unfortunate. *L. Domitius*, a man descended of a most noble house and parentage, being vanquished by *Cæsar* before Marseils, and taken prisoner at Corfinium by the same *Cæsar*, for very irksomenesse of his tedious life, poysoned himselfe: but after he had drunke the poyson, repented of that which he had done, and did all that ever he could to live still, but it would not be. Wee find upon record in the publicke registers, That when *Felix* one of the carnation or flesh colour liverie, that ran with charriots in the great cirque or K
shew-place, was had forth dead to be burnt, one of his favourites and consorts flung himselfe into his funerall fire for companie. A frivolous and small matter it is to speake of: but they of the other side that tooke part with the adverse faction of other liveries, because this act should not turne to the honour and credite of their concurrent the active Charotier abovenamed, gave it out and said, That this friend and well-willer of his, did it not for love, but that his head was intoxicate with the strong savor of the incense and odours that were in the fire, and so being beside himselfe, did he wist not what. Not long before that this chaunced, *M. Lepidus*, a gentleman of Rome, and descended of a most noble familie, who (as is abovesaid) died for thought and greefe of heart that he had divorced his wife, was by the violent force of the flame cast forth of the funerall fire: and becaus of the extreame heat thereof, no man could come neere to lay his corps L
againe in the place where it was and should be: they were faine to make another fire hard by of drie vine cuttings, and such like stickes, and so he was burnt bare and naked as he was.

Chap. liiii.

Of Buriall and Sepulture.

TO burne the bodies of the dead, hath been no auncient custome among the Romanes: the manner was in old time to enterre them. But after that they were given once to understand that the corses of men slaine in the warres a farre off, and buried in those parts, were taken forth of the earth againe, ordained it was to burne them. And yet many families kept them still M
to the old guise and ceremonie of committing their dead to the earth: as namely, the house of the *Cornelij*, whereof there was not one by report burnt before *L. Sylla* the Dictatour. And hee willed it expressely, & provided for it aforehand, for feare himselfe should be so served as *C. Marius* was, whose corpes he caused to be digged up after it was buried. Now in Latine, hee is said to

bee

A bee *Sepultus*, that is bestowed or buried any way, it makes no matter how: but *humatus* properly, who is enterred onely, or committed to the earth.

Chap. lv.

Of the ghosts or spirits of men departed.

After men are buried, great diversitie there is in opinion, what is become of their soules and ghosts, wandering some this way, and others that. But this is generally held, that in what estate they were before men were borne, in the same they remain when they are dead. For neither body nor soule hath any more sence after our dying day, than they had before the day of
B our nativitie. But such is the follie and vanitie of men, that it extendeth still even to the future time, yea, and in the very time of death flattereth it selfe with fond imaginations, and dreaming of I wot not what life after this. For some attribute immortalitie to the soule: others devise a certaine transfiguration thereof. And there be againe who suppose, that the ghosts sequestred from the bodie, have sence: whereupon they do them honour and worship, making a god of him that is not so much as a man. As if the manner of mens breathing differed from that in other living creatures: or as if there were not to bee found many other things in the world, that live much longer than men, and yet no man judgeth in them the like immortalitie. But shew mee what is the substance and bodie as it were of the soule by it selfe? what kind of matter is it apart from the bodie? where lieth her cogitation that she hath? how is her seeing, how is her hearing perfor-
C med? what toucheth she? nay, what doth she at all? How is she emploied? or if there bee in her none of all this, what goodnesse can there be without the same? But I would know where she setleth and hath her abiding place after her departure from the bodie? and what an infinite multitude of soules like shaddowes would there be, in so many ages, as well past as to come? now surely these be but fantasticall, fooliſh, and childish toies: devised by men that would fain live alwaies, and never make an end. The like foolerie there is in preserving the bodies of dead men. And the vanitie of *Democritus* is no lesse, who promised a resurrection thereof, and yet himselfe could never rise againe. And what a follie is this of all follies to thinke (in a mischeefe) that death should bee the way to a second life? what repose and rest should ever men have that are borne of a woman, if their soules should remaine in heaven above with sence, while their shaddowes tarried be-
D neath among the infernall wights? Certes, these sweet inducements and pleasing persuasions, this fooliſh credulitie and light-beleefe, marreth the benefite of the best gift of Nature, to wit, Death: it doubleth besides the paine of a man that is to die, if he happen to thinke and consider what shall betide him the time to come. For if it bee sweet and pleasant to live, what pleasure and contentment can one have, that hath once lived, and now doth not. But how much more ease and greater securitie were it for each man to beleeve himselfe in this point, to gather reasons, and to ground his resolution and assurance upon the experience that hee had before hee was borne?

Chap. lvi.

E

The first inventers of diverse things.

Before wee depart from this discourse of mens nature, me thinkes it were meet and convenient to shew their sundrie inventions, and what each man hath devised in this world. In the first place, prince *Bacchus* brought up buying and selling: he it was also that devised the diademe that roiall ensigne and ornament, and the manner of triumph. Dame *Ceres* was the first that shewed the way of sowing corne, whereas beforetime men lived of mast. Shee taught also, how to grind corne, to knead dough, and make bread thereof, in the land of Attica, Italie, and Sicilie: for which benefite to mankind, reputed shee was a goddesse. Shee it was that began to make lawes, howsoever others have thought, that *Rhadamanthus* was the first law-giver. As
F for letters, I am of opinion, that they were in Assyria from the beginning, time out of mind: but some thinke, and namely *Gellius*, that they were devised by *Mercurie* in Ægypt, but others say they came first from Syria. True it is, that *Cadmus* brought with him into Greece from Phœnice to the number of sixteene, unto which, *Palamedes* in the time of the Trojane warre added foure more in these characters following, Θ. Ξ. Φ. Χ. And after him *Simonides Melicus* came with other

other foure, to wit, Z.H.Y.Ω. the force of all which letters we acknowledge and see evidently expressed in our Latine Alphaphet. *Aristotle* is rather of mind, that there were eighteene letters in the Greeke Alphaphet from the beginning, namely, Α.Β.Γ.Δ.Ε.Ζ.Ι.Κ.Λ.Μ.Ν.Ο.Π.Ρ.Σ.Τ.Υ.Φ, and that the other two Θ. and Χ. were set too by *Epicharmus*, and not by *Palamedes*. *Anticlides* writeth, That one in Ægypt named *Menon*, was the inventor of letters, fifteene yeers before the time of *Phoroneus*, the most auncient king of Greece: and he goeth about to prove the same by auncient records and monuments out of histories. Contrariwise, *Epigenes*, an authour as renowmed, and of as good credite as any other, sheweth, that among the Babylonians there were found Ephemerides containining the observation of the starres, for 720 yeeres, written in brickes & tiles: and they that speake of the least, to wit, *Berosus* and *Critodemus*, report the like for 480 yeeres. Whereby it appeareth evidently, that letters were alwaies in use, time out of mind. The first that brought the Alphabet into Latium or Italie, were the Pelasgians. *Euryalus* and *Hyperbius*, two brethren at Athens, caused the first bricke and tile kils, yea, and houses therof to be made: whereas before their time men dwelt in holes and caves within the ground. *Gellius* is of opinion, that *Doxius*, the sonne of *Cœlus*, devised the first houses that were made of earth and cley: taking his patterne from swallowes and Martines neasts. *Cecrops* founded the first towne that ever was, and called it after his own name Cecropia: which at this day is the castle or citadell in Athens. Some will have that Argos was built before it, by king *Phoroneus*: and others againe, that Sycione was before them both. And the Ægyptians affirme, That long before that, their citie Diospolis was founded. *Cinyra*, the sonne of *Agriopa*, devised tiling and slating of houses first, as also found out the brasse mines: both, within the Isle Cyprus. He invented besides pinsers, hammers, yron crows, and the Anvil or Stithe. *Danaus* sunk the first pits for wels in Greece, which then was called Argos Dipsion: & sailed out of Ægypt thither, for that purpose. *Cadmus* at Thebes (or, as *Theophrastus* saith) in Phœnice, found out stone quarries first. *Thrason* was the first builder of towne walls: of towers and fortresses, the Cyclopes, as *Aristotle* thinketh: but the Tyrinthians, according to *Theophrastus*. Weaving was the invention of the Ægyptians: and dying wooll, of the Lydians in Sardis. *Closter* the sonne of *Arachne* taught the first making of the spindle for woollen yearne: and *Arachne* her selfe was the first spinner of flax thred, the weaver of linnen, and of nets. *Niceas* the Megarean devised the fullers craft: *Boethius* shewed the art of sowing, as well for tailors, as Corviners and shoemakers. The Ægyptians would have the skill of physicke to have beene first among them: but others affirme, That *Arabus*, the son of *Babylon* & *Apollo*, was the author thereof. The first Herbarist and Apothecarie, renowmed for the knowledge of simples, & composition of medicines, was *Chrion*, son of *Saturne* and *Phyllira*. *Aristotle* thinketh, that *Lydus* the Scythian taught the feat of casting and melting brasse, with the tempering also of the same: howbeit, *Theophrastus* saith it was *Delas* the Phrygian. As for the forges and furnaces of brasse, some think the Chalypes devised, others attribute that to the Cyclopes. The discoverie of the yron and steele mines, as also the working in them, was the invention (as *Hesiodus* saith) of those in Creet, who were called Dactyli Idæi. Likewise of silver, *Erichthonius* the Athenian beareth the name, or (after some) *Aeacus*. The gold mines, together with the melting & trying thereof, *Cadmus* the Phœnician first found out neere the mountaine Pangæus: but there be that give the praise hereof to *Thoas* and *Aeaclis* in Panchaia: or els to *Sol* the sonne of *Oceanus*, unto whom *Gellius* attributeth the invention of Phisicke, and making honny. *Midacritus* was the first man that brought lead out of the Island Cassiteris. And the Cyclopes invented first the yron-smiths forge. *Corœbus* the Athenian devised the potters craft, shewing how to cast earthen vessels in moulds, and bake them in furnaces. And therin, *Anacharsis* the Scythian, or after some, *Hyperbios* the Corinthian, invented the cast of turning the roundell or globe. Carpenters art was the invention of *Dædalus*, as also the tooles thereto belonging, to wit, the saw, the chip, axe, and hatchet, the plumbe line, the augoer and wimble, the strong glew, as also fish-glew, and stone-Saudre. As for the rule & squire, the levell, the turners instrument, and the key, *Theodorus Samius* devised them. *Phidon* the Argive, or *Palamedes* as *Gellius* rather thinketh, found out measures and weights. *Pyrodes* the sonne of *Cilix*, devised the way to strike fire first out of the flint: and *Prometheus*, the meanes to preserve and keepe it in a stalke of *Ferula*, or Fennell geant. The Phrygians invented first the waggon and charriot with foure wheeles. As for trafficke and merchandise, the Carthaginians had the first honour thereof. *Eumolpus* the Athenian was of name for planting, pruning, and cutting vines: also for setting and graffing trees. *Staphylus* the sonne of *Silenus* taught men how to delay wine

with

A with water. *Ariſtæus* the Athenian invented the making of oyle olive, as alſo the preſſe and mill thereto belonging. The ſame man taught the caſt of drawing honie out of the combes. *Buzyges* the Athenian, or as others would have it, *Triptolemus*, yoked oxen firſt for tillage of the ground, and deviſed the plough. The Ægyptians were the firſt of all men that were governed by the Monarchie: and the Athenians, by a Popular ſtate. After the reigne of *Theſeus*, the firſt king or tyrant was *Phalaris*, at Agrigentum in Sicilie. The Lacedæmonians brought in, bondage & ſlaverie, firſt. The firſt judgement that paſſed for life & death, was in the court Ariopagus at Athens. The firſt battell that ever was fought, was betweene the Affricanes and Ægyptians; and the ſame performed by baſtons, clubs, & coulſtaves, which they call Phalangæ. Shields, bucklers, and targuets were deviſed by *Prætus* and *Aniſius*, when they warred one againſt the other: or els by *Cal-*
B *chus* the ſonne of *Athamas*. *Midias* of Meſſene made the firſt cuirace. And the Lacedæmonians, the mourian, the ſword, and the ſpeare. The Carians deviſed the grieves, the creſts, and pennaches upon helmets. *Scythes* the ſonne of *Iupiter*, deviſed bow and arrowes: although ſome ſay that *Perſes*, the ſon of *Perſeus*, invented arrowes. The Ætolians invented the launce and the pike: the dart with a loupe, *Ætolus* the ſonne of *Mars*, deviſed. As for the light javelines, and the Partuiſanes, *Tyrrhenus* brought them firſt into uſe: and *Penthesilea* the Amazon-queene, the gleive, bill, battell-axe, and halbard. *Piſeus* found out the boreſpeare and chaſing ſtaffe. Among engins of artillery, the Cretes invented the Scorpion or croſſe-bow: the Syrians, the Catapult: the Phenicians the baliſt or brake, and the ſling. *Piſeus* the Tyrrhenian brought up the uſe of the braſen trumpet: and *Artenon Clazomenius* of the pavois, mantilets, targuet-roofes, for the aſſault of ci-
C ties. The engine to batter walls (called ſometime the horſe, and now is named the ram) was the deviſe of *Epeus* at Troy. *Bellerophon* ſhewed firſt how to ride on horſebacke. *Pelethronius* invented ſaddle, bridle, and other furniture for the horſe. The Theſſalians, called Centaures, inhabiting neere to the mountaine Pelius, were the firſt that fought on horſebacke. The Phrygians deviſed firſt to drive and draw a chariot with two horſes: *Erichthonius*, with foure. *Palamedes* invented (during the Trojane warre) the manner of ſetting an armie in battaile array: alſo the giving of ſignall, the privie watch-word, the *corps de guard*, the watch and ward. In the time of the ſame warre, *Sinon* deviſed the ſentinels and watch-towers, as alſo the eſpiall. *Lycaon* was the firſt maker of truce. *Theſeus*, of leagues and alliances. *Car*, of whom Caria tooke the name, obſerved firſt the flight and crie of birds, and thereby gave præſages and fore-tokens. *Orpheus* went farther in this
D skill, and tooke markes from other beaſts. *Delphus* pried into beaſts inwards, and thereby foretold things to come. *Amphiaraus* was the firſt that had knowledge in Pyromancie, and gathered ſigns by ſpeculation of fire: like as *Tyreſias* the Thebane, by the feeding and geſture of birds. *Amphicly-*
on gave the interpretation of ſtrange and prodigious ſights, as alſo of dreames. *Atlas* the ſonne of *Libya* (or as ſome ſay, the Ægyptians, and as others the Aſſyrians) invented Aſtrologie: and in that ſcience *Anaximander* deviſed the Sphere. As for the knowledge & diſtinction of the winds, *Æolus* the ſonne of *Hellen*, he profeſſed it firſt. *Amphion* brought muſicke firſt into the world. The flute and the ſingle pipe or recorder, were the inventions of *Pan*, the ſon of *Mercurie*. The crooked cornet, *Midas* in Phrygia deviſed. And in the ſame countrey *Marſyas* invented the double fluit. But *Amphion* taught firſt to ſing and play to the Lydian meaſures: *Thamyras* the Thracian
E to the Dorian: and *Marſyas* of Phrygia, to the Phrygian. *Amphion* likewiſe (or, as ſome ſay, *Orpheus*, and after others *Linus*) plaied firſt upon the Citterne or the Lute. *Terpander* put ſeven ſtrings more unto it: *Simonides* added thereto an eight: and *Timotheus* the ninth. *Thamyras* was the firſt that plaied upon the ſtringed inſtrument, Lute, Citterne, or Harpe, without ſong: & *Amphion* ſung withall; or according to ſome, *Linus*. *Terpander* was the firſt that ſet ſongs for the foreſaid ſtringed inſtrument. And *Dardanus* the Trœzenian began firſt vocall muſicke to the pipe. The Curets taught to daunce in armour; and *Pyrrhus* the Moriſk, in order of battell: and both theſe were taken up firſt in Crete. The heroick or hexametre verſe we acknowledge to have come firſt from the Oracle of *Pythius Apollo*. But about the originall of Poëmes and Poëtrie, there is a great queſtion among authors. And it is probably gathered by hiſtories, that there were Poëts
F before the time of the Trojane warre. *Pherecydes* of Syros, in the daies of king *Cyrus*, invented firſt the writing in proſe. *Cadmus* the Mileſian wrote Chronicles, and compiled the firſt hiſtorie. *Lycaon* hath the report of ſetting out the firſt publicke games, and proving of maiſtries and feats of ſtrength and activitie, in Arcadia. To *Acaſtus* in Iolcum, wee are beholden for the firſt ſolemnities and games at funerals: and after him to *Theſeus*, in the ſtreights of Iſthmus. *Hercules*

inſtitu-

instituted the exercise of wrestlers and champions at Olympia: and *Pythus* was the first player at tennise. *Gyges* the Lydian gave the first proofe of painting and limning, in Ægypt: but in Greece, *Euchir* a cousin of *Dædalus* was the first painter, as *Aristotle* supposeth: but after *Theophrastus*, it was *Polygnotus* the Athenien. *Danaus* was the first that sailed with a ship, and so hee passed the seas from Ægypt to Greece: for before that time they used but troughs or flat planks, devised by king *Erythra* to crosse from one Iland to another in the red sea. But we meet with some writers who affirme, that the Trojans and Mysians were the first sailers, and devised navigation before them in Hellespont, when they set out a voyage against the Thracians. And even at this day in the British ocean, there be made certaine wicker boats of twigs covered with leather and stitched round about: in Nilus, of paper, cane-reed, and rushes. *Philostephanus* witnesseth, that *Iason* first used the long ship or galley: but *Egesias* saith, that it was *Paralus*: *Ctesias* attributeth it to *Samyras*: *Saphanus*, to *Semyramis*: and *Archimachus*, to *Ægeon*. *Damastes* testifieth, that the Erythræans made the Bireme or galley with two bankes of oares. *Thucydides* writeth, that *Aminocles* the Corinthian built the first Trireme with three rowes of ores to a side. *Aristotle* saith, that the Carthaginians were the first that set to sea the Quadrireme with 4 rankes of oares to a side: and *Nesichthon* the Salaminian, set aflote the first Quinquereme with 5 course of oares on either side. *Zenagoras* of Syracusa brought up those of sixe: and so from it to those of ten, *Mnesigeton* was the inventer. It is said, that *Alexander* the Great built galleys for 12 bankes to a side: and *Philostephanus* reporteth, that *Ptolomæ* surnamed *Soter*, rose to fifteene: *Demetrius* the sonne of *Antigonus*, to thirtie: *Ptolomæ Philadelphus*, to fortie: and *Ptolomæ Philopator* surnamed *Tryphon*, to fiftie. As for ships of burden and merchandise, as hoyes, &c. *Hippus Tyrius* invented them. The Cyrenians, made fregates; the Phœnicians, the barke; the Rhodians, the pinnace and brigantine: and last of all, the Cyprians made the hulke and great carrack. The Phœnicians were the first that in sailing, observed the course of the starres. The Copeans devised the oare: the Plateans invented the broad and flat end thereof: *Icarus* the sailes: *Dædalus* the mast, and the crosse saile-yard. The vessels for transporting of horses, were the invention of the Samians, or else of *Pericles* the Athenien. The Thasij had the honour for framing the long shippes covered with hatch: for before-time they fought onely from out of the hindecke in the poupe, and the fore-castle in the proe. Then came *Piseus* the Tyrrhene, and armed the stemme and beake-head of the ship with sharpe tines and pikes of brasse: *Eupalamus* devised the anchor: *Anacharsis* made it first with two teeth or floukes: the grapling hookes and the yron hands were the devise of *Pericles* the Athenien: and finally, *Typhis* invented the helpe of the helme, for the pylot to steere and rule the ship. The first that set out an Armada to the sea for fight, was *Minos*. The first that killed beasts was *Hyperbius* the sonne of *Mars*: and *Prometheus* ventured to slay an oxe or a bœuse.

Chap. lvii.

Wherein appeared first the generall agreement of all nations.

The secret consent of all countries was shewed first in this, That they should universally in all places use the Ionian letters.

Chap. lviii.

Of Antique letters.

The old characters of Greeke letters, were the same in manner that the Latine be in these daies: and this appeareth sufficiently by an antique table of brasse which came from the temple at Delphos, the which at this day is in the great librarie of the Palatium dedicated to *Minerva*, by the liberalitie of the Emperours, with this or such like inscription upon it, Ναυσικράτης ποσαμένε ἀθλωσάσ, κόρᾳ νῦ ἀθλῶσα ἀνέθηκεν, *i. Nausicrates* (the sonne) of *Tisamenus* an Athenien, caused this table to be made and set up to the noble virgine *Minerva*.

Chap. lix.

When Barbers were first seene at Rome.

The next thing that all people of the world agreed in, was to entertaine Barbers, but it was late first ere they were in any request at Rome. The first that entred into Italie came out of Sicilie, and it was in the 454 yeere after the foundation of Rome. Brought in they were by

A by *P. Ticinius Mena*, as *Varro* doth report: for before-time they never cut their haire. The firſt that was ſhaven every day was *Scipio Africanus*: and after him commeth *Auguſtus* the Emperour, who evermore uſed the raſour.

Chap. lx.

Of Horologes or Dials, when they were firſt deviſed.

THe third univerſall accord of all nations, was in the obſervation how the houres went; and this was a point grounded upon good reaſon: but at what time, and by whome this was deviſed in Greece, we have declared in the ſecond booke of this worke: and long it was before B this order came up at Rome, as well as the uſe of the Barber. In the 12 tables of Romane lawes, there is no mention at all made but of Eaſt and Weſt: after certein yeeres, the noon-ſteed point in the South quarter alſo was obſerved, and the Conſuls bedle or cryer pronounced noon, when ſtanding at the hall or chamber of the councell, hee beheld the ſunne in that wiſe betweene the pulpit called Roſtra, and the Grecoſtaſis [which was a place where forrein embaſſadours gave their attendance:] but when that the ſame ſunne enclined downward from the columne named Mœnia, to the common goale or priſon, then hee gave warning of the laſt quarter of the day, and ſo pronounced. But this obſervation would ſerve but upon cleere daies when the ſunne ſhined: and yet there was no other meanes to know how the day went, untill the firſt Punicke warre. *Fabius Veſtalis* writeth, that *L. Papyrius Curſor* 12 yeeres before the warre with *Pyrrhus*, was the C firſt, that for to doe the Romanes a pleaſure, ſet up a ſunne-dyall to know what it was a clocke, upon the temple of *Quirinus* at the dedication thereof, when his father had vowed it before him. Howbet mine author ſheweth not either the reaſon of the making of that diall, or the workman; ne yet from whence it was brought, nor in what writer hee found it ſo written. *M. Varro* reporteth, that the firſt diall was ſet up in the common market-place, upon a columne neere the foreſaid Roſtra, in the time of the firſt Punicke warre, by *M. Valerius Meſſala* the Conſull, preſently after the taking of Catana in Sicilie; from whence it was brought, thirtie yeeres after the report that goeth of the foreſaid quadrant and dyall of *Papyrius*, namely, in the yeere after the foundation of the cittie 477. And albeit the ſtrokes and lines of this Horologe or dyall agreed not fit with the houres, yet were the people ruled and went by it for an hundred yeeres ſave one, even D untill *Q. Martius Philippus* (who together with *L. Paulus* was Cenſor) ſet another by it, framed and made more exquiſitely according to Art. And this peece of worke among other good acts done by the Cenſor during his office, was highly accepted of the people as a ſingular gift of his. Yet for all this, if it were a cloſe and cloudie daie wherein the ſunne ſhone not out, men knew not what it was a clocke certeinly: and thus it continued five yeeres more. Then at laſt, *Scipio Naſica* being Cenſor with *Lænas*, made the deviſe firſt to divide the houres both of day and night equally by water, diſtilling and dropping out of one veſſell into another. And this manner of Horologe or water-clocke, hee dedicated in the end within houſe, and that was in the 595 yeere from the building of Rome. Thus you ſee how long it was, that the people of Rome could not certainly tell how the day paſſed. Thus much concerning the Nature of man: let us returne now to E diſcourſe of other living creatures: and firſt of land beaſts.

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THE EIGTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

Chap. I.

Of land beasts. The praise of Elephants: their wit and understanding.

PAsse wee now to treat of other living creatures, and first of land beasts: among which, the Elephant is the greatest, and commeth neerest in wit and capacitie, to men: for they understand the language of that country wherein they are bred, they do whatsoever they are commaunded, they remember what duties they be taught, and withall take a pleasure and delight both in love and also in glorie: nay more than all this, they embrace goodnesse, honestie, prudence, and equitie, (rare qualities I may tell you to be found in men) and withall have in religious reverence (with a kind of devotion) not only the starres and planets, but the sunne and moone they also worship. And in very truth, writers there be who report thus much of them, That when the new moon beginneth to appeare fresh and bright, they come down by whole heards to a certaine river named Amelus, in the deserts and forrest of Mauritania, where after that they are washed and solemnly purified by sprinkling & dashing themselues all over with the water, and have saluted and adored after their manner that planet, they returne againe into the woods and chases, carrying before them their yong calves that be wearied and tired. Moreover, they are thought to have a sense and understanding of religion and conscience in others; for when they are to passe the seas into another countrey, they will not embarke before they be induced thereto by an oath of their governours and rulers, That they shall returne againe: and seen there have been divers of them, being enfeebled by sickenesse (for as bigge and huge as they be, subject they are to grievous maladies) to lie upon their backes, casting and flinging hearbs up toward heaven, as if they had procured and set the earth to pray for them. Now for their docilitie and aptnesse to learne any thing; the king they adore, they kneele before him, and offer unto him guirlands and chaplets of flowers and green hearbs. To conclude, the lesser sort of them, which they call Bastards, serve the Indians in good stead to eare and plough their ground.

Chap. II.

When Elephants were put to draw first.

THe first time that ever they were knowne to draw at Rome, was in the triumph of *Pompey* the great, after he had subdued Affricke, for then were two of them put in geeres to his triumphant charriot. But long before that, it is said that Father *Bacchus* having conquered India, did the like when he triumphed for his conquest. Howbeit, in that triumph of *Pompey*, *Procilius* affirmeth, That coupled, as they were, two in one yoke, they could not possibly goe in at the gates of Rome. In the late solemnitie of tournois and sword-fight at the sharpe, which *Germanicus Cæsar* exhibited to gratifie the people, the Elephants were seen to shew pastime with leaping and keeping a stirre, as if they daunced, after a rude and disorderly manner. A common thing it

was

A was among them to fling weapons and darts in the aire ſo ſtrongly, that the winds had no power againſt them; to flouriſh alſo beforehand, yea, and to encounter and meet together in fight like ſword-fencers, and to make good ſport in a kind of Moriske daunce: and afterwards to goe on ropes and cords: to carie (foure together) one of them laid at eaſe in a litter, reſembling the maner of women newly brought a bed: laſt of all, ſome of them were ſo nimble and well practiſed, that they would enter into an hall or dining place where the tables were ſet full of gueſts, & paſſe among them ſo gently and daintily, weighing as it were their feet in their going, ſo as they would not hurt or touch any of the companie as they were drinking.

Chap. iii.

The docilitie of Elephants.

B THis is knowne for certaine, that upon a time there was one Elephant among the reſt, not ſo good of capacitie, to take out his leſſons, and learne that which was taught him: and being beaten and beaten againe for that blockiſh and dull head of his, was found ſtudying and conning thoſe feats in the night, which he had been learning in the day time. But one of the greateſt wonders of them was this, that they could mount up and climbe againſt a rope; but more wonderfull, that they ſhould ſlide downe againe with their heads forward. *Mutianus*, a man who had in his time beene thrice Conſull, reporteth thus much of one of them, that hee had learned to make the Greeke characters, and was woont to write in that language thus much, *This have I written, and made an offering of the Celticke ſpoiles*. Likewiſe hee ſaith, that himC ſelfe ſaw at Puteoli, a certaine ſhip diſcharged of Elephants embarked therein: and when they ſhould bee ſet aſhore, and forced to goe forth of the veſſell, to which purpoſe there was a bridge made for them to paſſe over, they were affrighted at the length thereof, bearing out ſo farre from the land into the water: and therefore to deceive themſelves, that the way might not ſeeme ſo long, went backward with their tailes to the banke, and their heads toward the ſea. They are ware, and know full well that their onely riches (for love of which, men lay wait for them) lieth in their armes and weapons that Nature hath given them: king *Iuba* calleth them their hornes: but *Herodotus*, who wrote long before him, and the cuſtome of ſpeech, hath tearmed them much better, Teeth. And therefore when they are ſhed and fallen off, either for age, or by ſome caſualtie, the Elephants themſelves hide them within the ground. And this in truth is the onely yvorie:D for, all the reſt, yea and theſe teeth alſo ſo farre as lay covered within the fleſh, is of no price, and taken for no better than bone. And yet of late daies, for great ſcarcitie & want of the right teeth, men have been glad to cut and ſaw their bones into plates, and make yvorie thereof. For hardly can wee now come by teeth of any bigneſſe, unleſſe wee have them out of India. For all the reſt that might bee gotten in this part of the world betweene us and them, hath been emploied in ſuperfluities onely, and ſerved for wanton toies. You may know young Elephants by the whiteneſſe of theſe teeth: and a ſpeciall care and regard have theſe beaſts of them, above all. They look to one of them alwaies, that the point be ſharpe; and therefore they forbeare to occupie it, leaſt it ſhould bee blunt againſt they come to fight: the other they uſe ordinarily, either to get up roots out of the earth, or to caſt down any bankes or mures that ſtand in their way. When they chanceE to bee environned and compaſſed round about with hunters, they ſet formoſt in the ranke to bee ſeene, thoſe of the heard that have the leaſt teeth: to the end, that their price might not bee thought worth the hazard & venture in chaſe for them. But afterwards, when they ſee the hunters eager, and themſelves overmatched and wearie, they breake them with running againſt the hard trees, and leaving them behind, eſcape by this raunſome as it were, out of their hands.

Chap. iiii.

The clemencie of Elephants: their foreſight and knowledge of their owne dangers: alſo the fell fierceneſſe of the Tygre.

F A Wonder it is in many of theſe creatures, that they ſhould thus know wherefore they are hunted, and withall take heed and beware of all their dangers. It is ſaid, that if an Elephant chaunce to meet with a man wandering ſimply out of his way in the wilderneſſe, hee will mildly and gently ſet him into the right way againe. But if he perceive a mans freſh footing, before he eſpie the man, he will quake and tremble for feare of being forelaied and ſurpriſed: he will

ſtay from farther following the ſent, looke about him every way, ſnuffe and puffe for very anger. Neither will he tread upon the tract of a mans ſoot, but dig it out of the earth, and give it to the next Elephant unto him, and he againe to him that followeth, and ſo from one to another paſſeth this intelligence and meſſage as it were, to the utmoſt ranke behind. Then the whole heard makes a ſtand, and caſt round about to returne backward, and withall put themſelves in battell array: ſo long continueth that ſtrong virulent ſmell of mens feet, and runneth through them all, notwithſtanding for the moſt part they be not bare, but ſhod. Semblably, the Tigreſſe alſo, how fierce and cruell ſhe be to other wild beaſts, and careth not a whit for a very Elephant; if ſhe happen to have a ſight of a mans footing, preſently, by report, conveigheth away her young whelpes, and is gone. But how commeth ſhe to this knowledge of a man? where ſaw ſhe him ever before, whom thus ſhe feareth? For ſurely ſuch wild woods and foreſts are not much travelled & frequented by men. Set caſe, that they may well wonder at the ſtraunge ſight and noveltie of their tracts, which are ſo ſeldome ſeene, how know they that they are to bee feared? Nay, what ſhould bee the reaſon, that they dread to ſee a man indeed, being as they are, farre bigger, much ſtronger, and ſwifter by many degrees than a man? Certes, herein is to bee ſeene the wonderfull worke of Nature, and her mightie power; that the greateſt, the moſt fell and ſavage beaſts that be, having never ſeene that which they ought to feare, ſhould incontinently have the ſence and conceit, why the ſame is to be feared.

Chap. v.

The underſtanding and memorie of Elephants.

THe Elephants march alwaies in troupes. The eldeſt of them leadeth the vaward, like a captaine: and the next to him in age, commeth behind with the conduct of the arrereguard. When they are to paſſe over any river, they put formoſt the leaſt of all their companie, for feare, that if the bigger ſhould enter firſt, they would, as they troad in the channell, make the water to ſwell and riſe, and ſo cauſe the fourd to bee more deepe. *Antipater* writeth, that king *Antiochus* had two Elephants, which he uſed in his warres above all the reſt; and famous they were for their ſurnames, which they knew well ynough, and wiſt when any man called them thereby. And verily, *Cato* reciting in his Annales the names of the principall captaine Elephants, hath left in writing, That the elephant which fought moſt luſtily in the point of the Punick war, had to name Surus, by the ſame token, that the one of his teeth was gone. When *Antiochus* upon a time would have ſounded the fourd of a certaine river, by putting the Elephants before, Ajax refuſed to take the water, who otherwiſe at all times was wont to lead the way. Whereupon the king pronounced with a lowd voice, That looke which Elephant paſſed to the other ſide, he ſhould be the captaine and cheefe. Then Patroclus gave the venture: and for his labour had a rich harniſh and capariſon given him, & was all trapped in ſilver (a thing wherein they take moſt delight) & made beſides, the ſoveraigne of all the reſt. But the other that was diſgraced thus, and had loſt his place, would never eat any meat after, but died for very ſhame of ſuch a reprochfull ignominie. For among other qualities, marvellous baſhfull they are. For if one of them be overmatched and vanquiſhed in fight, he will never after abide the voice and braying of the conqueror, but in token of ſubmiſſion, giveth him a turfe of earth, with vervaine or graſſe upon it. Vpon a kind of ſhamefaced modeſtie, they never are ſeene to engender together, but performe that act in ſome couvert and ſecret corner. They go to rut, the male at five yeares of age, the female not before ſhe is ten yeares old. And this they doe every third yeare: and they continue therein five daies in the yeare (as they ſay) and not above: for upon the ſixt day they all to waſh themſelves over in the running river: and before they be thus purified, returne not to the heard. After they have taken one to another once, they never chaunge: neither fall they out and fight about their females, as other creatures doe moſt deadly and mortally. And this is not for want of love and hote affection that way. For reported it is of one Elephant, that he caſt a fancie and was enamoured upon a wench in Ægypt that ſold noſegaies and guirlands of floures. And leaſt any man ſhould thinke that hee had no reaſon thereto, it was no ordinarie maiden, but ſo amiable, as that *Ariſtophanes* the excellent Grammarian, was wonderfully in love with her. Another there was, ſo kind and full of love, that hee fanſied a youth in the armie of *Ptolomæus*, that ſcarce had never an haire on his face, and ſo entirely hee loved him, that what day ſoever hee ſaw him not, hee would forbeare his meat

A meat, and eat nothing. King *Iuba* likewiſe reporteth alſo of an Elephant that made court to another woman, who made and ſold ſweet ointments and perfumes. All theſe teſtified their love and kindneſſe, by theſe tokens: joy they would at the ſight of them, and looke pleaſantly upon them: make toward them they would (after their rude and homely manner) by all meanes of flatterie: and eſpecially in this, that they would ſave whatſoever people caſt unto them for to eat, and lay the ſame full kindly in their laps and boſomes. But no marvell is it that they ſhould love, who are ſo good of memorie. For the ſame *Iuba* ſaith, That an Elephant tooke knowledge and acquaintenance of one man in his old age, and after many a yeere, who in his youth had ben his ruler and governor. He affirmeth alſo, that they have by a ſecret divine inſtinct, a certain ſence of juſtice and righteous dealing. For when king *Bacchus* meant to bee revenged of 30 Elephants,
B which he had cauſed to be bound unto ſtakes, and ſet other 30 to run upon them, appointing alſo certaine men among to pricke & provoke them thereto; yet for all that, could not one of them be brought for to execute this butcherie, nor be miniſters of anothers crueltie.

Chap. VI.

When Elephants were firſt ſeene in Italie.

THe firſt time that Elephants were ſeene in Italie, was during the warre of king *Pyrrhus*: and they called them by the name of *Lucæ boves*, *i.* Lucane oxen, becauſe they had the firſt ſight of them in the Lucanes countrey, and it was in the 472 yeere after the cities foundation.
C But in Rome it was ſeven yeers after ere they were ſeene, and then they were ſhewed in a triumph. But in the yeere 502, a number of them were ſeene at Rome by occaſion of the victorie of *L. Metellus Pontifex* over the Carthaginians: which Elephants were taken in Sicilie. For 142 of them were conveied over upon plankes and flat bottomes, which were laid upon ranks of great tunnes and pipes ſet thicke one by anotther. *Verrius* ſaith, that they were cauſed to fight in the great Cirque or ſhew place, and were killed there with ſhot of darts and javelins for want of better counſell, and becauſe they knew not well what to doe with them: for neither were they willing to have them kept and nouriſhed, ne yet to bee beſtowed upon any kings. *L. Piſo* ſaith they were brought out only into the ſhew-place or cirque aforeſaid, and for to make them more contemptible, were chaſed round about it by certaine fellowes hired thereto, having for that purpoſe cer-
D taine ſtaves and perched, not pointed with yron, but headed with bals like foiles. But what became of them afterward, thoſe authours make no mention: who are of opinion, that they were not killed.

Chap. VII.

Their fights and combates.

MVch renowmed is the fight of one Romane with an Elephant, at what time as *Annibal* forced thoſe captives whom he had taken of our men, to skirmiſh one againſt another to the utterance. For the onely Romane that remained unſlaine in that unnaturall conflict,
E hee would needs match with an Elephant, and ſee the combate himſelfe, aſſuring him upon his word, that if he could kill the beaſt, he ſhould be diſmiſſed and ſent home with life and libertie. So this priſoner entered into ſingle fight with the Elephant, and to the great hearts greefe of the Carthaginians ſlew him out-right. *Annibal* then ſent him away indeed according to promiſe and covenant; but conſidering better the conſequence of this matter, and namely, that if this combate were once by him bruited abroad, the beaſts would bee leſſe regarded, and their ſervice in the warres not eſteemed: made after him certaine light horſemen to overtake him upon the way, to cut his throat, ſo making him ſure for telling tales. Their long ſnout or trunke which the Latins call *Proboſcis*, may be eaſily cut off; as it appeared by experience in the wars againſt king *Pyrrhus*. *Feneſtella* writeth, That the firſt fight of them in Rome, was exhibited in the grand
F Cirque, during the time that *Claudius Pulcher* was Ædile Curule, when *M. Antonius* and *A. Poſthumius* were Conſuls: in the 650 yeere after the citie of Rome was built. In like manner, 20 yeer after, when the *Luculli* were Ædiles Curule, there was repreſented a combat betweene buls and Elephants. Alſo in the ſecond Conſulſhip of *Cn. Pompeius* at the dedication of the temple to *Venus Victoreſſe*, 20 of them, or as ſome write, 17 fought in the great ſhew place. In which ſolemnitie

the Gætulians were set to launce darts and javelines against them. But among all the rest, one E- G
lephant did wonders: for when his legs and feet were shot and stucke full of darts, he crept upon his knees, and never staied till he was gotten among the companies of the said Gætulians, where hee caught from them their targuets and bucklers perforce, flung them aloft into the aire, which as they fell, turned round, as if they had beene trundeled by art, and not hurled and throwne with violence by the beasts in their furious anger: and this made a goodly sight, and did great pleasure to the beholders. And as strange a thing as that was seene in another of them, whose fortune was to bee killed out of hand with one shot: for the dart was so driven, that it entred under the eie, and pierced as farre as to the vitall parts of the head, even the ventricles of the braine. Where- upon all the rest at once assaied to breake forth and get away, not without a great hurrie and trou- ble among the people, notwithstanding they were without the lists, and those set round about H
with yron grates and barres. [And for this cause, *Cæsar* the Dictatour, when afterwards hee was to exhibite the like shew before the people, cast a ditch round about the place, letting in the wa- ter, and so made a mote thereof: which, prince *Nero* afterwards stopped up, for to make more roume for the knights and men of armes.] But those Elephants of *Pompey* being past all hope of escaping and going cleere away, after a most pittifull manner and rufull plight that cannot be expressed, seemed to make mone unto the multitude, craving mercie and pitie, with greevous plaints and lamentations, bewailing their hard state and wofull case: in such sort, that the peo- ples hearts earned againe at this piteous sight, and with teares in their eies, for very compassion, rose up all at once from beholding this pageant, without regard of the person of *Pompey* that great Generall and Commaunder, without respect of his magnificence and stately shew, of his I
munificence and liberalitie, where he thought to have woon great applause and honour at their hands; but in lieu thereof fell to cursing of him, and wishing all those plagues and misfortunes to light upon his head; which soone after ensued accordingly. Moreover, *Cæsar* the Dictatour in his third Consulship exhibited another fight of them, and brought forth 20 to maintaine skir- mish against 500 footmen: and a second time hee set out 20 more, with woodden turrets upon their backes, containing 60 defendants apeece: and he opposed against them 500 footmen, and as many horse. After all this, *Claudius* and *Nero* the Emperours brought them forth one by one into single fight with approved, expert, and accomplished fencers, at the end of all the other so- lemnitie, when they had done their prises. This beast, by report of all writers, is so gentle to all o- thers that are but weake, and not so strong as himselfe, that if he passe through a flocke or heard K
of smaller cattell, it will with the nose or trunke which serveth in steed of his hand, remoove and turne aside whatsoever beast commeth in his way, for feare he should go over them, and so crush and tread under his foot any of them, ere it were aware. And never doe they any hurt, unlesse they be provoked thereto. Alwaies walke they by troups together, and worst of all other can they away with wandering alone, but love companie exceeding well. If it fortune that they be envi- roned with horsemen, looke how many of their followers be feeble, wearie, or wounded, those they take into the mids of their squadron: and as if they were marshalled and ordered by a Ser- jeant of a band, or heard the direction of some General, so skilfully and as it were with guidance of reason, doe they maintaine fight by turnes, and succeed one after another in their course. L
The wild sort of them, after they be taken, are soonest brought to bee tame and gentle, with the juice or decoction of husked barley.

Chap. viii.

The manner of taking Elephants.

THe Indians are wont to take Elephants in this manner: the governor driveth one of them that are tame, into the chase and forrests, and when he can meet with one of them alone, or single him from the heard, he all to beateth the wild beast untill he hath made him wearie, and then he mounteth upon him and ruleth him as well as the former. In Africk they catch them in great ditches which they make for that purpose: into which, if one of them chance to wander M
astray from his fellowes, all the rest immediatly come to succor him; they heap together a deale of boughs, they roll down blocks and stones, and whatsoever may serve to raise a banke, and with all that ever they can doe, labour to plucke him out. Before time, when they meant to make them tractable, their manner was, by a troupe of horsemen to drive or traine them by little and little

a long

A a long way in a certein lawn or valley, made by mans hand for the nones, ere they wer aware, and when they wer encloſed within ditches or banks, there they would keep them from meat ſo long, untill for very hunger they would be glad to come to hand for food: & by this they might know they were gentle and tame enough to be taken, if they would meekely take a braunch of a bough preſented and offered unto them. But now a daies, ſince they ſeek after them for their teeth ſake, they make no more adoe but ſhoot at their legges, which otherwiſe naturally are tender enough and the ſofteſt part of their whole bodie. The Troglodites, a people bounding upon Æthiopia, who live onely upon the veniſon of Elephants fleſh, uſe to clime trees that be neere their walke, and there take a ſtand: from thence (letting all the heard to paſſe quietly under the trees) they leape downe upon the buttockes of the hinmoſt: then, hee that doth this feat, with his left hand
B laieth faſt hold upon his taile, and ſetteth his feet and legges faſt in the flanke of the left ſide, and ſo hanging and bending backward with his bodie, he cutteth the ham-ſtrings of one of his legs with a good keen bill or hatchet that he hath of purpoſe in his right hand: which done, the Elephant beginneth to ſlacke his pace, by reaſon that one of his legges is wounded: the man then maketh ſhift to get away and alighteth on foot, & for a farewell he hougheth the ſinewes likewiſe of the other ham: and all this doth he in a trice with wonderfull agilitie and nimblenes. Others have a ſafer way than this, but it is more ſubtill and deceitfull: they ſet or ſticke in the ground a great way off, mightie great bowes readie bent; to hold theſe faſt, they chuſe certaine tall, luſtie, and ſtrong fellowes, and as many others as ſufficient as they, to draw with all their might and maine the ſaid bowes againſt the other, and ſo they let flie againſt the poore Elephants as they
C paſſe by, javelins and bore-ſpeares, as if they ſhot ſhafts, and ſticke them therewith, and ſo follow them by their bloud. Of theſe beaſts, the females are much more fearfull than the male kind.

Chap. ix.

The manner of taming Elephants.

AS furious and raging mad as they be ſometime, they are tamed with hunger and ſtripes: but men had need to have the helpe of other Elephants that are tame alreadie, to reſtrain the untruly beaſt with ſtrong chaines: of all times, when they goe to rut they are moſt out of order and ſtarke wood; down go the Indian ſtables and beaſt-ſtals then, which they over-turn
D with their teeth: and therefore they keepe them from entring into that fit, and ſeparate the females apart from the males, making their parkes and encloſures aſunder, as they doe by other beaſts. The tamed ſort of them ſerve in the warres, and carrie little caſtles or turrets with armed ſouldiers, to enter the ſquadrons and battailons of the enemies: and for the moſt part, all the ſervice in the warres of the Eaſt, is perfourmed by them, and they eſpecially determine the quarrell: theſe be they that breake the rankes, beare down armed men that are in the way, and ſtamp them under foot. Theſe terrible beaſts (as outragious otherwiſe as they ſeeme) are frighted with the leaſt grunting that is of a ſwine: be they wounded at any time or put into a fright, backeward alwaies they goe, and doe as much miſchiefe to their owne ſide that way, as to their enemies. The African Elephants are affraid of the Indian, and dare not look upon them; for in truth the
E Indian Elephants be farre bigger.

Chap. x.

How they breed and bring forth their young: and of their nature otherwiſe.

THe common ſort of men thinke, that they goe with young ten yeeres: but *Ariſtotle* ſaith, that they goe but two yeeres, and that they breed but once and no more in their life, and bring not above one at a time: alſo that they live commonly by courſe of nature 200 yeers, and ſome of them 300. Their youthfull time and ſtrength of age beginneth when they be three-
F ſcore yeeres old: they love rivers above all things, and lightly ye ſhall have them evermore wandring about waters; and yet by reaſon otherwiſe of their bigge and unweldie bodies, ſwim they cannot. Of all things they can worſt away with cold; and that is it they are moſt ſubject unto, and feele greateſt inconvenience by: troubled they be alſo with the chollicke, and ventoſities, as alſo with the fluxe of the bellie: other maladies they feele not. I find it written in hiſtories, that if

they drinke oile, the arrowes and darts which ſticke in their bodies will come foorth and fall off: but the more that they ſweat the ſooner will they take hold and abide in ſtil the faſter. The eating of earth breeds the conſumption in them, unleſſe they feed and chew often thereof: they devoure ſtones alſo. As for the trunkes and bodies of trees, it is the beſt meat they have, and therin take they moſt delight. If the date trees be too high that they cannot reach the fruit, they will overturne them with their forehead, and when they lie along, eat the dates. They chew and eat their meat with their mouth: but they breath, drinke, and ſmell, with their trunke, which not improperly is called their hand. Of all other living creatures, they cannot abide a mouſe or a rat, and if they perceive that their provander lying in the manger, taſt and ſent never ſo little of them, they refuſe it and will not touch it. They are mightily tormented with paine, if they chaunce in their drinking to ſwallow down an horſleech (which worme, I obſerve, they begin now to call, a blood-ſucker:) for ſo ſoone as this horſleech hath ſetled faſt in his wind-pipe, he putteth him to intolerable paines. Their hide or skin of their backe, is moſt tough and hard; but in the belly, ſoft and tender: covered their skin is neither with haire nor briſtle, no not ſo much as in their taile, which might ſerve them in good ſtead to drive away the buſie and troubleſome flie, (for as vaſt & huge a beaſt as he is, the flie haunteth and ſtingeth him) but full their skin is of croſſe wrinckles lattiſewiſe; and beſides that, the ſmell thereof is able to draw and allure ſuch vermine to it: and therfore when they are laid ſtretched along, and perceive the flies by whole ſwarmes ſetled on their skin, ſodainly they draw thoſe cranies and creviſes togither cloſe, and ſo cruſh them all to death. This ſerves them inſtead of taile, maine, and long haire. Their teeth beare a very high price, and they yeeld the matter of greateſt requeſt, and moſt commendable, for to make the ſtatues and images of the gods: but ſuch is the ſuperfluitie and exceſſe of men, that they have deviſed another thing in them to commend; for they find forſooth a ſpeciall daintie taſt in the hard callous ſubſtance of that which they call their hand: for no other reaſon (I beleeve) but becauſe they have a conceit that they eat yvorie, when they chaw this griſtle of their trunke. In temples are to be ſeene Elephants teeth of the greateſt ſize: howbeit in the marches of Africke where it confineth upon Æthyopia, they make of yvorie the verie principals and corner poſts of their houſes: alſo with the Elephants tooth, they make mounds and pales both for to encloſe their grounds, and alſo to keepe in their beaſts within parke, if it be true that *Polybius* reporteth, from the teſtimonie of king *Gulуſſa*.

Chap. xi.

Where the Elephants are bred: how the Dragons and they diſagree.

Elephants breed in that part of Affricke which lyeth beyond the deſerts and wilderneſſe of the Syrtes: alſo in Mauritania: they are found alſo among the Æthiopians and Troglodites, as hath been ſaid: but India bringeth forth the biggeſt: as alſo the dragons, that are continually at variance with them, and evermore fighting, and thoſe of ſuch greatneſſe, that they can eaſily claſpe and wind round about the Elephants, and withall tye them faſt with a knot. In this conflict they die, both the one and the other: the Elephant hee falls downe dead as conquered, and with his heavie weight cruſheth and ſqueaſeth the dragon that is wound and wreathed about him.

Chap. xii.

The wittineſſe and pollicie in theſe creatures.

WOnderful is the wit and ſubtiltie that dumb creatures have, & how they ſhift for themſelves and annoy their enemies: which is the only difficultie that they have to ariſe and grow to ſo great an heigth and exceſſive bigneſſe. The dragon therefore eſpying the Elephant when he goeth to releeſe, aſſaileth him from an high tree and launceth himſelfe upon him; but the Elephant knowing well enough he is not able to withſtand his windings and knittings about him, ſeeketh to come cloſe to ſome trees or hard rockes, and ſo for to cruſh & ſquiſe the dragon between him and them: the dragons ware hereof, entangle and ſnarle his feet and legges firſt with their taile: the Elephants on the other ſide, undoe thoſe knots with their trunke as with a hand: but to prevent that againe, the dragons put in their heads into their ſnout, and

ſo

A so stop their wind, and withall, fret and gnaw the tendereſt parts that they find there. Now in caſe theſe two mortall enemies chaunce to reencounter upon the way, they briſtle and bridle one againſt another, and addreſſe themſelves to fight; but the principall thing the dragons make at, is the eye: whereby it commeth to paſſe, that many times the Elephants are found blind, pined for hunger, and worne away, and after much languiſhing, for very anguiſh & ſorrow die of their venime. What reaſon ſhould a man alleadge of this ſo mortall warre betweene them, if it be not a verie ſport of Nature and pleaſure that ſhee takes, in matching theſe two ſo great enemies togither, and ſo even and equall in every reſpect? But ſome report this mutuall war between them after another ſort: and that the occaſion thereof ariſeth from a naturall cauſe. For (ſay they) the Elephants bloud is exceeding cold, and therefore the dragons be wonderfull deſirous thereof to
B refreſh and coole themſelves therewith, during the parching and hote ſeaſon of the yeere. And to this purpoſe they lie under the water, waiting their time to take the Elephants at a vantage when they are drinking. Where they catch faſt hold firſt of their trunke: and they have not ſo ſoone claſped and entangled it with their taile, but they ſet their venomous teeth in the Elephants eare, (the onely part of all their bodie, which they cannot reach unto with their trunke) and ſo bite it hard. Now theſe dragons are ſo big withall, that they be able to receive all the Elephants bloud. Thus are they ſucked drie, untill they fall down dead: and the dragons again, drunken with their bloud, are ſquiſed under them, and die both together.

Chap. XIII.

C

Of Dragons.

In Æthyopia there be as great dragons bred, as in India, namely, twentie cubites long. But I marvell much at this one thing, why king *Iuba* ſhould thinke that they were creſted. They are bred moſt in a countrey of Æthyopia, where the Aſachæi inhabite. It is reported, that upon their coaſts they are enwrapped foure or five of them together, one within another, like to a hurdle or lattiſe worke, and thus paſſe the ſeas, for to find better paſturage in Arabia, cutting the waves, and bearing up their heads aloft, which ſerve them in ſteed of ſailes.

Chap. XIIII.

D

Of monſtrous great Serpents, and namely of thoſe called Boæ.

Megaſthenes writeth, that there be ſerpents among the Indians growen to that bigneſſe, that they are able to ſwallow ſtags or buls all whole. *Metrodorus* ſaith, That about the river Rhyndacus in Pontus, there be Serpents that catch and devour the foules of the aire, bee they never ſo good and flight of wings, and fore they never ſo high. Well knowne it is, that *Attilius Regulus*, Generall under the Romanes, during the warres againſt the Carthaginians, aſſailed a Serpent neere the river Bagrada, which caried in length 120 foot: and before he could conquer him, was driven to diſcharge upon him arrowes, quarrels, ſtones, bullets, and ſuch like ſhot, out of brakes, ſlings, and other engines of artillerie, as if he had given the aſſault to ſome ſtrong towne
E of warre. And the proofe of this was to be ſeene by the markes remaining in his skin and chaws, which, untill the warre of *Numantia* remained in a temple or conſpicuous place of Rome. And this is the more credible, for that wee ſee in Italie other ſerpents named Boæ, ſo big and huge, that in the daies of the Emperour *Claudius* there was one of them killed in the Vaticane, within the bellie whereof there was found an infant all whole. This Serpent liveth at the firſt of kines milke, and thereupon taketh the name of Boæ. As for other beaſts, which ordinarily of late are brought from all parts into Italie, and oftentimes have there been ſeene, needleſſe it is for mee to deſcribe their formes in particular curiouſly.

Chap. XV.

F

Of Scythian beaſts, and thoſe that are bred in the North parts.

Very few ſavage beaſts are engendred in Scythia, for want of trees and paſturage. Few likewiſe in Germanie, bordering thereupon. Howbeit, that country bringeth forth certain kinds of goodly great wild bœufes: to wit, the Biſontes, mained with a collar, like Lions: and the

Vri,

Vri, a mightie ſtrong beaſt, and a ſwift: which the ignorant people call Buffles, whereas indeed the Buffle is bred in Affrica, and carieth ſome reſemblance of a calfe rather, or a ſtag. The Northerne regions bring forth wild horſes, which there are found in great troupes: like as in Aſia and in Affricke there are to bee ſeene wild aſſes. Moreover, a certaine beaſt, called the Alce, very like to an horſe, but that his eares are longer; and his necke likewiſe with two markes, diſtinguith them aſunder. Moreover, in the Iſland Scandinavia, there is a beaſt called Machlis, not much unlike to the Alce abovenamed: common he is there, and much talk we have heard of him, howbeit in theſe parts hee was never ſeene. Hee reſembleth, I ſay, the Alce, but that hee hath neither joint in the hough, nor paſternes in his hind-legs: and therefore hee never lieth downe, but ſleepeth leaning to a tree. And therefore the hunters that lie in await for theſe beaſts, cut downe the tree whiles they are aſleepe, and ſo take them: otherwiſe they ſhould never bee taken, ſo ſwift of foot they are, that it is wonderfull. Their upper lip is exceeding great, and therefore as they graſe and feed, they goe retrograde, leaſt if they were paſſant forward, they ſhould fold double that lip under their muzzle. There is (they ſay) a wild beaſt in Pæonia, which is called Bonaſus, with a maine like an horſe, otherwiſe reſembling a bull: marie, his hornes bend ſo inward with their tips toward his head, that they ſerve him in no ſteed at all for fight, either to offend or defend himſelfe; and therefore, all the helpe that he hath, is in his good footmanſhip; and otherwhiles in his flight by dunging, which hee will ſquirt out from behind him three acres in length. This ordure of his is ſo ſtrong and hot, that it burneth them that follow after him in chaſe, like fire, if haply they touch it. A ſtrange thing it is, and wonderfull, that the Leopards, Panthers, Lions (and ſuch like beaſts) as they go, draw in the points of their clawes within their bodie, as it were into ſheaths, becauſe they ſhould neither breake nor waxe blunt, but bee alwaies keene and ſharpe: alſo, that when they run, they ſhould turne the hooked nailes of their pawes backe, and never ſtretch them forth at length, but when they meane to aſſaile or ſtrike any thing.

Chap. xvi.

Of Lions.

THe Lions are then in their kind moſt ſtrong and courageous, when the haire of their main or coller is ſo long, that it covereth both necke and ſhoulders. And this commeth to them at a certaine age, namely, to thoſe that are engendered by Lions indeed. For ſuch as have Pards to their ſires, never have this ornament, no more than the Lioneſſe. Theſe Lioneſſes are very letcherous, and this is the very cauſe that the Lions are ſo fell and cruell. This, Affricke knoweth beſt, and ſeeth moſt: and eſpecially in time of a great drought, when for want of water, a number of wild beaſts reſort by troups to thoſe few rivers that be there, and meet together. And hereupon it is, that ſo many ſtrange ſhaped beaſts, of a mixt and mungrell kind are there bred, whiles the males either perforce, or for pleaſure, leape and cover the females of all ſorts. From hence it is alſo, that the Greekes have this common proverbe, *That Affricke evermore bringeth forth ſome new and ſtrange thing or other.* The Lion knoweth by ſent and ſmell of the Pard, when the Lioneſſe his mate hath plaied falſe, and ſuffered her ſelfe to be covered by him: and preſently with all his might and maine runneth upon her for to chaſtiſe and puniſh her. And therefore when the Lioneſſe hath done a fault that way, ſhee either goeth to a river, and waſheth away the ſtrong and ranke ſavour of the Pard, or els keepeth aloofe, and followeth the Lion farre off, that hee may not catch the ſaid ſmell. I ſee it is a common received opinion, that the Lioneſſe bringeth forth young but once in her life, for that her whelpes in her kinling, teare her belly with their nailes, and make themſelves roume that way. *Ariſtotle* writeth otherwiſe, a man whom I cannot name, but with great honour and reverence, and whome in the hiſtorie and report of theſe matters I meane for the moſt part to follow. And in very truth king *Alexander* the great, of an ardent deſire that he had to know the natures of all living creatures, gave this charge to *Ariſtotle*, a man ſingular and accompliſhed in all kind of ſcience and learning, to ſearch into this matter, and to ſet the ſame downe in writing: and to this effect commanded certaine thouſands of men, one or other, throughout all the tract, as well of Aſia as Greece, to give their attendance, & obey him: to wit, all Hunters, Faulconers, Fowlers, and Fiſhers, that lived by thoſe profeſſions. Item, all Forreſters, Park-keepers, and Wariners: all ſuch as had the keeping of heards and flockes of cattell: of bee-hives, fiſh-pooles, ſtewes, and ponds: as alſo thoſe that kept up foule, tame or wild,

in

A in mew, thoſe that fed poultrie in barton or coupe: to the end that he ſhould be ignorant of nothing in this behalfe, but be advertiſed by them, according to his commiſſion, of all things in the world. By his conference with them, he collected ſo much, as thereof he compiled thoſe excellent bookes *de Annimalibus*, *i.* of Living creatures, to the number almoſt of fiftie. Which being couched by me in a narrow roume, and breefe Summarie, with the addition alſo of ſome things els which he never knew, I beſeech the readers to take in good worth: and for the diſcoverie and knowledge of all Natures workes, which that moſt noble & famous king that ever was deſired ſo earneſtly to know, to make a ſhort ſtart abroad with mee, and in a breefe diſcourſe by mine owne paines and diligence digeſted, to ſee all. To return now unto our former matter. That great Philoſopher *Ariſtotle* therfore reporteth, that the Lioneſſe at her firſt litter bringeth forth
B five whelpes, and every yeare after, fewer by one: and when ſhe commeth to bring but one alone, ſhee giveth over, and becommeth barren. Her whelpes at the firſt are without ſhape, like ſmall gobbets of fleſh, no bigger than weaſels. When they are ſixe months old, they can hardly go, and for the two firſt, they ſtirre not a whit. Lions there be alſo in Europe (onely betweene the rivers Achelous and Neſtus) and theſe verily be farre ſtronger than thoſe of Affricke or Syria. Moreover, of Lions there be two kinds: the one ſhort, well truſſed and compact, with more criſp and curled maines, but theſe are timerous and but cowards to them that have long and plaine
2 haire; for thoſe paſſe not for any wounds whatſoever. The Lions lift up a legge when they piſſe, as dogges doe: and over and beſides that, they have a ſtrong and ſtinking breath, their very bodie alſo ſmelleth ranke. Seldome they drinke, and eat but each other day: and if at any time they
C feed till they be full, they will abſtaine from meat three daies after. In their feeding, whatſoever they can ſwallow without chawing, down it goes whole: and if they find their gorge and ſtomack too full, and not able indeed to receive according to their greedie appetite, they thruſt their pawes downe their throats and with their crooked clees fetch out ſome of it againe, to the end they ſhould not be heavie and ſlow upon their fulneſſe, if haply they be put to find their feet and flie. Mine author *Ariſtotle* ſaith moreover, that they live verie long: and he prooveth it by this argument, That many of them are found toothles for very age. *Polybius* who accompanied [*Scipio*] *Æmylianus* in his voyage of Affrick, reporteth of them, That when they be grown aged, they will prey upon a man: the reaſon is, becauſe their ſtrength will not hold out to purſue in chaſe other wild beaſts. Then, they come about the cities and good towns of Affrick, lying in await for their
D prey, if any folk come abroad: & for that cauſe, he ſaith, that whiles he was with *Scipio* he ſaw ſome of them crucified & hanged up, to the end that upon the ſight of them, other Lions ſhould take example by them, and be skared from doing the like miſchiefe. The Lion alone of all wild beaſts is gentle to thoſe that humble themſelves unto him, and will not touch any ſuch upon their ſubmiſſion, but ſpareth what creature ſoever lieth proſtrate before him. As fell and furious as hee is
3 otherwhiles, yet he diſchargeth his rage upon men, before that he ſetteth upon women, and never preyeth upon babes unleſſe it be for extreame hunger. They are verily perſuaded in Libya, that they have a certaine underſtanding, when any man doth pray or entreat them for any thing. I have hard it reported for a truth, by a captive woman of Getulia (which being fled was brought home againe to her maſter) That ſhee had pacified the violent furie of many Lions within the
E woods and forreſts, by faire language and gentle ſpeech; and namely, that for to eſcape their rage, ſhe hath been ſo hardie as to ſay, ſhee was a ſillie woman, a baniſhed fugitive, a ſickely, feeble, and weake creature, an humble ſuiter and lowly ſuppliant unto him, the nobleſt of all other living creatures, the ſoveraigne and commaunder of all the reſt, and that ſhee was too baſe and not worthie that his glorious majeſtie ſhould prey upon her. Many and divers opinions are currant, according to the ſundrie occurrences that have hapned, or the inventions that mens wits have deviſed. As touching this matter, namely, that ſavage beaſts are dulced and appeaſed by good words and faire ſpeech: as alſo that fell ſerpents may bee trained and fetched out of their holes by charmes, yea and by certaine conjurations and menaces reſtrained and kept under for a puniſhment: but whether it be true or no, I ſee it is not yet by any man ſet downe and determined.
F To come againe to our Lions: the ſigne of their intent and diſpoſition, is their taile; like as in horſes, their ears: for theſe two marks and tokens, certainly hath Nature given to the moſt couragious beaſts of all others, to know their affections by: for when the Lion ſtirreth not his taile, hee is in a good mood, gentle, mild, pleaſantly diſpoſed, and as if hee were willing to be plaied withall; but in that fit he is ſeldome ſeene: for lightly hee is alwaies angrie. At the firſt, when hee entreth

entreth into his choller, hee beateth the ground with his taile: when hee groweth into greater heats, he flappeth and jerketh his sides and flanks withall, as it were to quicken himselfe, and stirre up his angry humor. His maine strength lieth in his breast: hee maketh not a wound (whether it be by lash of taile, scratch of claw, or print of tooth) but the bloud that followeth, is blacke. When his belly is once full, all his anger is past, and he doth no more harme. His generositie and magnanimitie he sheweth most in his daungers: which courage of his appeareth not onely herein, That he seemeth to despise all shot of darts against him, defending himselfe a long time onely with the terrible aspect of his countenance, and protesting as it were that he is unwilling to deale unlesse he be forced thereto in his owne defence, *i. se defendendo*, and at length maketh head againe, not as compelled and driven thereto for any perill that he seeth, but angred at their follie that assaile and set upon him: but herein also is seen rather his noble heart and courage, That be there never so many of hounds and hunters both following after him, so long as hee is in the open plaines where he may be seene, hee maketh semblance as though he contemned both dog and man, dismarching and retiring with honour, and otherwhiles seeming in his retreat to turne againe and make head; but when he hath gained the thickets and woods, and gotten once into the forrests out of sight, then he skuds away, then hee runneth amaine for life, as knowing full well that the trees and bushes hide him, that his shamefull dislodging and flight is not then espied. When he chaseth and followeth after other beasts, hee goeth alwaies saltant or rampant; which he never useth to doe when he is chased in sight, but is onely passant. If hee chaunce to be wounded, hee hath a marveilous eye to marke the partie that did it, and be the hunters never so many in number, upon him he runneth onely. As for him that hath let flie a dart at him, and yet missed his marke and done no hurt, if he chaunce to catch him, hee all to touzeth, shaketh, tosseth, and turneth him lying along at his feet, but doth him no harme at all besides. When the Lioness fighteth for her young whelpes, by report, she setteth her eies wistly and entirely upon the ground, because she would not be affrighted at the sight of the chasing-staves of the hunters. Lions are nothing at all craftie & fraudulent, neither be they suspicious: they never look askew, but alwaies cast their eie directly forward, & they love not that any man should in that sort looke side-long upon them. It is constantly beleeved, that when they lie a dying they bite the earth, and in their very death shed teares. This creature, so noble as he is, and withall so cruell and fell, trembleth and quaketh to heare the noise of cartwheeles, or to see them turne about; nay he cannot abide of all things charriots when they be void and emptie: frighted he is with the cocks comb, K
3 and his crowing much more, but most of all with the sight of fire. The Lion is never sick but of the peevishnes of his stomacke, loathing all meat: and then the way to cure him, is to tie unto him certaine shee apes, which with their wanton mocking and making mowes at him, may move his patience and drive him for the verie indignitie of their malapert saucinesse, into a fit of madnesse; and then, so soone as he hath tasted their blood, he is perfectly well againe: and this is the onely remedie. *Q. Scævola* the sonne of *Publius*, was the first at Rome that in his Curule Ædileship exhibited a fight and combat of many Lions togither, for to shew the people pastime and pleasure: but *L. Sylla*, who afterwards was Dictatour, was the first of all others that in his Pretorship represented a shew of an hundred Lions with manes and collars of haire: and after him, *Pompeius* the Great shewed 600 of them fighting in the grand Cirque, whereof 315 were male L
Lions with mane. And *Cæsar* Dictatour brought 400 of them into the shew-place. The taking of them in old time was a verie hard peece of worke, and that was commonly in pit-fals: but in the Emperor *Claudius* his daies it chaunced, that a shepheard or heardman who came out of Gætulia, taught the manner of catching them: a thing (otherwise) that would have been thought incredible, and altogither unbeseeming the name and honour of so goodly a beast. This Getulian I say, fortuned to encounter a Lion, and when he was violently assailed by him, made no more adoe but threw his mandilion or cassocke full upon his eies. This feat or cast of his was soone after practised in the open shew-place, in such sort, that a man would hardly have beleeved, but he
5 that saw it, that so furious a beast should so easily be quailed and daunted so soone as ever hee felt his head covered, were the things never so light; making no resistance, but suffering one to doe M
what he would with him, even to bind him fast, as if in very truth all his vigor and spirit rested in his eyes. Lesse therefore is it to be marveiled at, that *Lysimachus* strangled a Lion, when as by commaundement of *Alexander* the Great, he was shut up alone togither with him. The first that yoked them at Rome and made them to draw in a charriot, was *M. Antonius*. And verily it was in

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A the time of civill warre, after the battaile fought in the plaines of Pharſalia, a ſhrewd fore-token and unhappie preſage for the future event, and namely, for men of an high ſpirit and brave mind in thoſe daies, unto whom this prodigious ſight did prognoſticate the yoke of ſubjection: for what ſhould I ſay, how *Antonie* rode in that wiſe with the courtiſan *Cytheris*, a common Actreſſe in Enterludes upon the ſtage? to ſee ſuch a ſight, was a monſtrous ſpectacle, that paſſed all the calamities of thoſe times. It is reported, that *Hanno* (one of the nobleſt Carthaginians that ever were) was the firſt man that durſt handle a Lion with his bare hand, and ſhewe him gentle and tame, to follow him all the citie over in a ſlip like a dogge. But this deviſe and tricke of his turned him to great domage, and coſt him his utter undoing: for the Carthaginians hereupon laid this ground, that *Hanno*, a man of ſuch a gift, ſo wittie and inventive of all deviſes, would be
B able to perſuade the people to whatſoever his mind ſtood; and that it was a daungerous and tickliſh point to put the libertie of ſo great a ſtate as Carthage was, into the hands and managing of him, who could handle and tame the furious violence of ſo ſavage a beaſt: and thereupon condemned and baniſhed him. Moreover we find in hiſtories, many examples alſo of their clemencie and gentleneſſe, ſeene upon divers caſuall occaſions. *Mentor* the Syracuſian, fortuned in Syria to meet with a Lion, who after an humble manner, in token of obedience and ſubmiſſion, ſeemed to tumble and wallow before him: he aſtonied for very feare, ſtarted backe and began to flie, but the wild beaſt followed him ſtill, and was readie at every turne to preſent himſelfe before him, licking the verie tracks of his footſteps as he went, in flattering manner, as if he would make love unto him. *Mentor* at length was ware that the Lion had a wound in his foot, and that it ſwel-
C led therewith: whereupon he gently plucked out the ſpill of wood that had gotten into it, and ſo eaſed the beaſt of his paine. This accident is for a memoriall repreſented in a picture at Syracuſa. Semblably, *Elpis* a Samian being arrived and landed in Affricke, chaunced to eſpie neere the ſhoare, a Lion, gaping wide and ſeeming afar off to whet his teeth at him in menacing wiſe: he fled apace to take a tree, and called upon god *Bacchus* to help him (for then commonly we fall to our praiers when we ſee little or no hope of other helpe:) but the Lion ſtopped him not in his flight, albeit he could have croſſed the way well enough; but laying himſelfe downe at the tree root with that open mouth of his wherewith he had skared the man, made ſignes to move pitie and compaſſion. Now ſo it was, that the beaſt having lately fed greedily, had gotten a ſharpe bone within his teeth which put him to exceeding paine; beſides that, he was almoſt famiſhed:
D and he looked pittifully up to the man, ſhewing how he was puniſhed himſelf among thoſe very weapons wherwith he was to annoy others, and after a ſort with dumb & mute praiers beſought his helpe. *Elpis* aviſed him well a pretie while, and beſides that hee was not very forward to venture upon the wild beaſt, he ſtaied the longer and made the leſſe haſt, whiles he conſidered rather this ſtraunge and miraculous accident, than otherwiſe greatly feared. At the laſt hee commeth downe from the tree, and plucketh out the bone, whiles the Lion held his mouth handſomly to him, and compoſing himſelfe for to receive his helpfull hand as fitly as poſſibly he could. In recompence of which good turne, it is ſaid, that ſo long as this ſhip of his lay there at anchor, the Lion furniſhed him and his companie with good ſtore of veniſon readie killed to his hand. And upon this occaſion, *Elpis* after his returne, dedicated a temple in Samos to god *Bacchus*, which
E upon this reaſon the Greekes called κιχλωστος Διονυσος, *i.* of *Gaping Bacchus*: or, σωτηρος νεου Διονυσου, *i.* The chappell of *Bacchus* the Saviour. Can wee marveile any more from henceforth, that wild beaſts ſhould marke and know the footing of a man, ſeeing that in their extremities and neceſſities, they have recourſe to him alone for hope of ſuccour? And why went not they to other creatures? or who taught them that the hand of man was able to cure them? unleſſe this be the reaſon peradventure, That griefe, anguiſh, and extreame peril, forceth even ſavage beaſts to ſeeke all meanes of helpe and reliefe.

Chap. XVII.

Of Panthers.

F *Demetrius* the Philoſopher, ſo well ſeen in the ſpeculation of Natures workes, and the cauſes thereof, maketh mention of as memorable a caſe as the former, touching a Panther: for as hee ſaith, there was a Panther deſirous to meet with a man, and therefore lay in the mids of an high-way until ſome paſſenger ſhould come by, and ſodainly was eſpied of the father

of

of *Philinus* the Philosopher, who travailed that way. The man (for feare) began to retire and go backe againe, but the wild beast kept a tumbling and vauting all about him; doubtlesse and by all apparance after a flattering sort, as if it would have had somewhat; and such a tossing and tormenting of it selfe she made, so piteously, that it might soone be seene in what griefe and paine the Panther was. The poore beast had but lately kindled, and her young whelpes were falne into a ditch, a farre off: well, the first point that the man shewed of pittie and commiseration was, not to be affraid; and the next was, to have regard and care of her: follow hee did the Panther, as she seemed to traine and draw him by his garment (which with her clawes she tooke hold of full daintily) untill they were come to the pit or ditch abovesaid. So soone then as he knew the occasion of her griefe and sorrow, and withall, what might bee the reward of his courtesie, even as much as his life came to, hee drew foorth her little ones that were falne downe into the said pit: which done, she and her whelpes togither leaping and shewing gambols for joy, accompanied him, and through the wilderneſſe directed him all the way, untill he was gotten forth. So as it appeared in her, that she was thankefull unto him and requited his kindneſſe, albeit their passed no covenant nor promise betweene them of any such recompense: a rare example to be found even amongst men. This storie and such like, give great colour of truth to that which *Democritus* reporteth; namely, That *Thoas* in Arcadia saved his life by the meanes of a dragon. This *Thoas* being but a verie child, had loved this dragon when he was but young, exceeding well, and nourished him: but at last, being in some dread of the serpents nature, and not well knowing his qualities, and fearing withall the bigneſſe that now hee was growne unto, had carried him into the mountaines and deserts: wherein it fortuned that hee was afterwards set upon and environed by theeves: whereupon he cried out, and the dragon knowing his voice, came foorth and rescued him. As for babes and infants cast forth to perish, and sustained by the milke of wild beasts, like as *Romulus* and *Remus* our first founders, were suckled by a shee wolfe: such things in mine opinion are in all reason to be attributed more to fortune and fatall destinies, than to the nature of those savage beasts. The Panthers and Tygres, are in a manner the only beasts (that for their variety of spotted skins, and *furres which they yeeld) in great request, and commendable: for other beasts have each one a proper colour of their owne, according to their kind. Lions there be all blacke, but those are found in Syria onely. The ground of the Panthers skin, is white, beset all over with little blacke spots like eyes. It is said, that all four-footed beasts are wonderfully delighted and enticed by the smell of Panthers; but their hideous looke and crabbed countenance which they bewray so soone as they shew their heads, skareth them as much againe: and therefore their manner is, to hide their heads, and when they have trained other beasts within their reach by their sweet savour, they flie upon them and worrie them. Some report, that they have one marke on their shoulder resembling the moone, growing and decreasing as she doth, sometime shewing a full compasse, and other-whiles hollowed and pointed with tips like hornes. In all this kind and race of wild beasts, now a daies they call the male * Variæ and Pardi: and great abundance there is of them in Affricke and Syria. Some there be againe, that make no other difference betweene the Luzernes, Leopards, and these Panthers, but onely this, that the Panthers be white; and as yet I know no other markes to discerne them by. There passed an old Act and ordinance of the Senate, forbidding expressely that any Panthers of Africke should be brought into Italie. Against this edict, *Cn. Aufidius* a Tribune of the commons, put up another Bill unto the people; and graunted it was, That for the solemnitie of the games Circenses, they might be brought over. *Scaurus* was the first man who in his Ædileship exhibited a shew unto the people of 150 Luzernes togither. After him, *Pompeius* the Great brought forth 410. The Emperor *Augustus*, 420: who also in the yeere that *Q. Tubero* and *Fabius Maximus* were Consuls together (upon the 4 day before the Nones of May, at the dedication of the Theatre of *Marcellus*) was the first of all others that shewed a tame tygre within a cage: but the Emperour *Claudius*, foure at once.

* *i.* the Lubernes, or Luzernes.

* *i.* Luzernes, or Libards.

Chap. xviii.

Of the Tygre, and his nature: of Camels, Chamelopardales, and when they were first seene at Rome.

TYgres are bred in Hircania and India: this beast is most dreadfull for incomparable swiftneſſe, and most of all seen it is in the taking of her young: for her litter (whereof there is a great

great number) by the hunters is ſtolne and carried away at once, upon a moſt ſwift horſe for the purpoſe; lying in wait to eſpie when the dam is abroad: and ſhifteth this bootie from one freſh horſe to another, riding away upon the ſpurre as hard as they can. But when the Tigreſſe commeth and finds her neſt and den emptie (for the male Tigre hath no care nor regard at all of the young) ſhe runnes on end after her young ones, and followeth thoſe that carried them away, by the ſent of their horſe footing. They perceiving the Tigreſſe to approach by the noiſe that ſhee maketh, let fall or caſt from them one of her whelpes: up ſhee taketh it in her mouth, and away ſhe runneth towards her den ſwifter, for the burden that ſhee carrieth: and preſently ſhe ſetteth out againe, followeth the queſt after her fawnes, and overtaketh the hunter that had them away. Thus runneth ſhe too and fro, untill ſhe ſee that they be embarked and gone, and then for anger that ſhe hath not ſped of her purpoſe, ſhe rageth upon the ſhore and the ſands, for the loſſe of her fawnes.

As for Camels, they are nouriſhed in the Levant or Eaſt parts among other heards of great cattaile. Two kinds there be of them, the Bactrians, and the Arabicke; and herein they differ: the Bactrians have two bunches upon their backes; the other, but one apeece there, but they have another in their breaſt, wherupon they reſt and lie. Both ſorts want the upper row of teeth in their mouthes, like as bulls and kine. In thoſe parts from whence they come, they ſerve all to carrie packes like labouring horſes, and they are put to ſervice alſo in the warres, and are backed of horſemen: their ſwiftneſſe is comparable to that of horſes: they grow to a juſt meaſure, and exceed not a certaine ordinarie ſtrength. The camell in his travailing, will not goe a jote farther than his ordinarie journey, neither will carrie more than his accuſtomed and uſuall lode. Naturally they hate horſes. They can abide to be foure daies together without drinke; and when they take occaſion to drinke and meet with water, they fill their skin full enough to ſerve both for the time paſt and to come: but before they drinke, they muſt trample with their feet to raiſe mud and ſand, and ſo trouble the water, otherwiſe they take no pleaſure in their drinking. They live commonly 50 yeeres, and ſome of them an hundred. Theſe creatures alſo otherwhile fall to be mad, ſo much as it is. Moreover, they have a deviſe to ſplay even the very females, to make them ſerviceable for the warres; for if they be not covered, they become the ſtronger and more courragious.

Two other kinds of beaſts there be, that reſemble in ſome ſort, the Camels: the one is called of the Æthyopians, the Nabis, necked like an horſe, for legge and foot not vnlike the bœuſe, headed for all the world as a camell, beſet with white ſpots upon a red ground, whereupon it taketh the name of Camelopardalus: & the firſt time that it was ſeen at Rome, was in the games Circenſes ſet out by *Cæſar* Dictatour: ſince which time, hee commeth now and then to Rome, to be looked upon more for ſight than for any wild nature that he hath: whereupon ſome have given her the name of a Savage ſheepe.

Chap. xix.

Of the Chaus and Cephus.

THe Hind-wolfe, which ſome call Chaüs, and the Gaules were wont to name Rhaphius (reſembling in ſome ſort a wolfe with Leopards ſpots) were ſhewed firſt in the ſolemnitie of the games and plaies exhibited by *Cn. Pompeius* the Great. He alſo brought out of Æthyopia other beaſts, named * Cephi, whoſe fore-feet were like to mens hands, and the hinder feet and legges reſembled thoſe of a man. He was never ſeene afterwards at Rome. * Semivulpes.

Chap. xx.

Of the Rhinoceros.

IN the ſame ſolemnities of *Pompey*, as many times elſe, was ſhewed a Rhinoceros, with one horne and no more, and the ſame in his ſnout or muzzle. This is a ſecond enemie by nature to an Elephant. He fileth that horne of his againſt hard ſtones, and maketh it ſharpe againſt he ſhould fight; and in his conflict with the Elephant, he layeth principally at his bellie, which he knoweth to be more tender than the reſt. He is full as long as he, his legges are much ſhorter, and of the boxe colour.

Chap. xxi.

Of Lynces or Onces, and Marmozets or Apes, called Sphinges: of Crocutes, Monkies, Indiſh bœufes, Leococrutes, Eale: Æthiopian bulles, the Mantichore, and Lycornes: of the ſerpents called Catoblepes, and the Baſiliske

ONces are common, ſo are Marmozets, with a browne duskiſh haire, having dugs in their breaſt. Æthiopia breedeth them, like as many other monſtrous beaſts: to wit, horſes with wings, and armed with hornes, which they call Pegaſi. Alſo the Crocutes [a kind of maſtive dogges] engendred betwen a dog and a wolfe: theſe are able to craſh with their teeth whatſoever they can come by, and a thing is no ſooner downe their ſwallow and got into their ſtomacke, but preſently they digeſt it. Moreover, the * Monkies with blacke heads, otherwiſe haired like Aſſes, differing from other Apes in their crie. The Indians have certaine bœufes with one horn, and others with three. Alſo the Leocrocuta, a moſt ſwift beaſt, as big almoſt as an hee-aſſe, legged like an Hart, with a neck, taile, and breaſt of a Lion, headed like theſe grayes or badgers, with a cloven foot in twaine: the ſlit of his mouth reacheth to his eares: in ſtead of teeth, an entire whol bone. They report, that this beaſt counterfeiteth a mans voice. They have among them beſides all theſe, another beaſt named Eale, for bigneſſe equal to the river-horſe, tailed like to an Elephant, either blacke or reddiſh tawnie of colour: his mandibles or chawes reſemble thoſe of a bore: he hath hornes above a cubit long, which he can ſtirre or moove as hee liſt; for being in fight, hee can ſet them both or one of them as hee will himſelfe, altering them every way; one while ſtreight forward to offend, other whiles bending byas, as he hath reaſon to nort or puſh, to ward or avoid his enemie. But the moſt fell and cruell of all others in that countrey, be the wild bulls of the forreſt, greater than our common field bulles: moſt ſwift, of colour brended, their eyes gray or blewiſh, their haire growing contrarie, their mouth wide and reaching to their ears: their hornes likewiſe hard by, mooveable; their hide as hard as a flint, checking the dent of any weapon whatſoever, and cannot be pierced: all other wild beaſts they chaſe and hunt; themſelves cannot be taken but in pit-fals: in this their wildneſſe and rage they die, and never become tamed. *Cteſias* writeth, that in Æthiopia likewiſe there is a beaſt which he calleth Mantichora, having three rankes of teeth, which when they meet togither are let in one within another like the teeth of combes: with the face and eares of a man, with red eyes; of colour ſanguine, bodied like a lyon, and having a taile armed with a ſting like a ſcorpion: his voice reſembleth the noiſe of a flute and trumpet ſounded together: very ſwift he is, and mans fleſh of all others hee moſt deſireth. In India, there be found bœufes whole hoofed, with ſingle hornes: alſo a wild beaſt named * Axis, with a skin like a fawn or hind-calfe; howbeit marked with more ſpots, and thoſe whiter. This beaſt is conſecrated to *Bacchus*, and under his protection. The Oſſians of India hunt Apes, and take a number of them, white all over. But the moſt fell and furious beaſt of all other, is the Licorne or Monoceros: his bodie reſembleth an horſe, his head a ſtagge, his feet an Elephant, his taile a bore; he loweth after an hideous manner; one blacke horn he hath in the mids of his forehead, bearing out two cubits in length: by report, this wild beaſt cannot poſſibly be caught alive. Among the Heſperian Æthyopians, there is a fountaine named Nigris, the head (as many have thought) of the river Nilus, and good reaſons there be to carrie it, which we have alleadged before: neere to which ſpring, there keepeth a wild beaſt called Catoblepes, little of bodie otherwiſe, heavie alſo and ſlow in all his limmes beſides, but his head onely is ſo great that his bodie is hardly able to beare it; hee alwaies carrieth it downe toward the earth, for if hee did not ſo, he were able to kill all mankind: for there is not one that looketh upon his eyes, but hee dyeth preſently. The like propertie hath the ſerpent called a Baſiliske: bred it is in the province Cyrenaica, and is not above twelve fingers-breadth long: a white ſpot like a ſtarre it carrieth on the head, and ſetteth it out like a coronet or diademe: if he but hiſſe once, no other ſerpents dare come neere: he creepeth not winding and crawling byas as other ſerpents doe, with one part of the bodie driving the other forward, but goeth upright and aloft from the ground with the one halfe part of his bodie: he killeth all trees and ſhrubs not only that he toucheth, but that he doth breath upon alſo: as for graſſe and hearbs, thoſe hee findgeth and burneth up, yea and breaketh ſtones in ſunder: ſo venimous and deadly is he. It is received for a truth, that one of them upon a time

*Cercopitheci.

* As ſome think, a Muſkeat.

K

L

M

A time was killed with a launce by an horſeman from his horſebacke, but the poiſon was ſo ſtrong that went from his bodie along the ſtaffe, as it killed both horſe and man: and yet a ſillie weazle hath a deadly power to kill this monſtrous ſerpent, as pernicious as it is [for many kings have been deſirous to ſee the experience thereof, and the manner how he is killed.] See how Nature hath delighted to match every thing in the world with a concurrent. The manner is, to caſt theſe weazles into their holes and cranies where they lye, (and eaſie they be to know, by the ſtinking ſent of the place all about them:) they are not ſo ſoone within, but they overcome them with their ſtrong ſmell, but they die themſelves withall; and ſo Nature for her pleaſure hath the combat diſpatched.

B

Chap. xxii.

Of Wolves.

IT is commonly thought likewiſe in Italie, that the eye-ſight of wolves is hurtfull; in ſo much, as if they ſee a man before he eſpie him, they cauſe him to looſe his voice for the time. They that be bred in Affricke and Ægypt, are but little, and withall nothing lively but without ſpirit. In the colder clime, they be more eger and cruel. That men may be transformed into wolves, and reſtored againe to their former ſhapes, we muſt confidently beleeve to be a lowd lie, or elſe give credit to all thoſe tales which wee have for ſo many ages found to be meere fabulous untruths. But how this opinion grew firſt, and is come to be ſo firmely ſetled, that when wee would
C give men the moſt opprobrious words of defiance that we can, wee tearme them *Verſipelles*, I thinke it not much amiſſe in a word to ſhew. *Euanthes* (a writer among the Greekes, of good account and authoritie) reporteth, that hee found among the records of the Arcadians, That in Arcadia there was a certain houſe and race of the *Antæi*, out of which one evermore muſt of neceſſitie be transformed into a wolfe: and when they of that familie have caſt lots who it ſhall be, they uſe to accompanie the partie upon whome the lot is falne, to a certaine meere or poole in that countrey: when he is thither come, they turne him naked out of all his clothes, which they hang upon an oke thereby: then he ſwimmeth over the ſaid lake to the other ſide, and being entred into the wilderneſſe, is preſently transfigured and turned into a wolfe, and ſo keepeth com-
D panie with his like of that kind for nine yeeres ſpace: during which time, (if he forbeare all the
E while to eat mans fleſh) he returneth againe to the ſame poole or pond, and being ſwomme over it, receiveth his former ſhape againe of a man, ſave onely that hee ſhall looke nine yeeres elder than before. *Fabius* addeth one thing more and ſaith, That he findeth againe the ſame apparell that was hung up in the oke aforeſaid. A wonder it is to ſee, to what paſſe theſe Greekes are come in their credulitie: there is not ſo ſhameleſſe a lye, but it findeth one or other of them to uphold and maintaine it. And therefore *Agriopas*, who wrote the Olympionicæ, telleth a tale of one *Dæmænetus Parrhaſius*, That he upon a time at a certain ſolemne ſacrifice (which the Arcadians celebrated in the honour of *Iupiter Lycæus*) taſted of the inwards of a child that was killed for a ſacrifice, according to the manner of the Arcadians (which even was to ſhed mans
E blood in their divine ſervice) and ſo was turned into a wolfe: and the ſame man ten yeeres after, became a man againe, was preſent at the exerciſe of publicke games, wreſtled, did his devoir, and went away with victorie home againe from Olympia. Over and beſides, it is commonly thought and verily beleeved, that in the taile of this beaſt, there is a little ſtring or haire that is effectuall to procure love, and that when he is taken at any time, hee caſteth it away from him, for that it is of no force and vertue unleſſe it be taken from him whiles he is alive. He goeth to rut in the whole yeere not above twelve daies. When he is very hungrie and can get no other prey, he feedeth upon the earth. In the caſe of preſages and fore-tokens of things to come, this is obſerved, That if men ſee a wolfe abroad, cut his way and turne to their right hand, it is good; but if his mouth be full when he doth ſo, there is not a better ſigne nor more luckie in the world again.
F There be of this kind that are called Hart-wolves, ſuch as wee ſaid that *Pompey* ſhewed in the grand Cirque, brought out of Fraunce. This beaſt (they ſay) be he never ſo hungry when hee is eating, if he chaunce to looke backe, forgetteth his meat, ſlinketh away, and ſeeketh for ſome
F other prey.

* Turn-coats.

Chap. xxiii.

Of Serpents.

AS touching Serpents, wee ſee it ordinarie that for the moſt part they are of the colour of the earth wherein they lie hidden: and an infinite number of ſorts there be of them. The Serpent Ceraſtes hath many times foure ſmall hornes, ſtanding out double: with moving whereof ſhee amuſeth the birds, and traineth them unto her for to catch them, hiding all the reſt of her bodie.

The Amphisbæna hath two heads, as it were, that is to ſay, one at the taile, as if ſhee were not hurtfull ynough to caſt her poiſon at one mouth only. Some are skaled, others ſpotted and painted: but generally, the venome of them all is moſt deadly. There bee of them, that from the boughes of trees ſhoot and launce themſelves: in ſuch manner, as that we are not onely to take heed of Serpents, as they goe and glide upon the ground, but alſo to looke unto them that flie as a dart or arrow ſent out of an engine. The Aſpides ſwell about the necke when they purpoſe to ſting: and no remedie is there for them that are ſtung or bitten by them, unleſſe the parts that are wounded, bee cut off preſently. This peſtilent creature, as venomous as hee is, hath one point yet of underſtanding or affection rather: you ſhal not ſee them wandering abroad but two and two together, the male and female, as if they were yoked together; and unneth, or not at all, can they live alone without their mate: ſo that if the one of them bee killed, it is incredible how the other ſeeketh to bee revenged. It purſueth the murderer, it knoweth him againe amongſt a number of people, be they never ſo many: him it courſeth, and laieth for his life: notwithſtanding what difficulties ſoever, it breaketh through all, be it never ſo farre thither, and nothing may impeach this revenging humor, unleſſe ſome river be betweene to keepe it backe, or that the partie make ſpeed and eſcape away in great haſt. And I aſſure you, I am not able to ſay, whether Nature hath beene more free and prodigall in ſending among us ſuch noiſome things, or giving us remedies againe for them. For to begin withall: ſhe hath affourded to this hurtfull creature but a darke ſight, and a dim paire of eies; and thoſe not placed in the fore-part of the head, to ſee forward and directly, but ſet in the very temples. And hereof it is, that theſe Serpents are raiſed oftener by their hearing than ſight.

Chap. xxiiii.

Of the Rat of India, called Ichneumon.

BEſides the foreſaid infirmitie, there is mortall warre betweene them and the Ichneumones or rats of India. A beaſt this is, well knowne to the Aſpis, in this regard eſpecially, that it is bred likewiſe in the ſame Ægypt. The manner of this Ichneumon is, to wallow oftentimes within the mud, and then to drie it ſelfe againſt the Sunne: and when hee hath thus armed himſelfe as it were with many coats hardneſſe in this manner, he goeth forth to combat with the Aſpis. In fight he ſets up his taile, & whips about, turning his taile to the enemie, & therin latcheth and receiveth all the ſtrokes of the Aſpis, and taketh no harme thereby: and ſo long maintaineth he a defenſive battell, untill he ſpie a time, turning his heat ato-ſide, that he may catch the Aſpis by the throat, & throttle it. And not content thus to have vanquiſhed this enemie, he addreſſeth himſelfe to a conflict with another, as hurtfull every way and dangerous as the former.

Chap. xxv.

Of the Crocodile, Scinke, and River-horſe.

THe river Nilus nouriſheth the Crocodile: a venomous creature, foure footed, as daungerous upon water as the land. This beaſt alone, of all other that keepe the land, hath no uſe of a tongue. He onely moveth the upper jaw or mandible, wherewith he biteth hard: and otherwiſe terrible hee is, by reaſon of the courſe and ranke of his teeth which cloſe one within another, as if two combes grew together. Ordinarily, he is above eighteene cubites in length. The female laieth egs as big as geeſe doe: and ſitteth ever upon them out of the water. For a certaine naturall fore-knowledge ſhe hath, how farre Nilus the river will that yeare riſe when hee is at the higheſt,

A higheſt,and without it will ſhee bee ſure to ſit.There is not another creature againe in the world, that of a ſmaller beginning,groweth to a bigger quantitie. His feet be armed with clawes for offence,and his skin ſo hard,that it wil abide any injurie whatſoever,and not be pierced. All the day time the Crocodile keepeth upon the land, but hee paſſeth the night in the water: and in good regard of the ſeaſon he doth both the one and the other. When hee hath filled his bellie with fiſhes, he lieth to ſleepe upon the ſands in the ſhore: and for that he is a great and greedie devourer,ſomewhat of the meat ſticketh evermore betweene his teeth. In regard wherof commeth the wren,a little bird called there Trochilos, and the king of birds in Italie: and ſhee for her victuals ſake,hoppeth firſt about his mouth,falleth to pecking and piking it with her little neb or bill,and ſo forward to the teeth,which ſhe cleanſeth; and all to make him gape. Then getteth ſhee within
B his mouth,which he openeth the wider,by reaſon that he taketh ſo great delight in this her ſcraping and ſcouring of his teeth and chawes. Now when he is lulled as it were faſt aſleepe with this pleaſure and contentment of his: the rat of India,or Ichneumon aboveſaid,ſpieth his vantage, and ſeeing him lie thus broad gaping, whippeth into his mouth, and ſhooteth himſelfe downe his throat as quicke as an arrow,and then gnaweth his bowels,eateth an hole through his bellie, and ſo killeth him.

Within the river Nilus there breeds another Serpent called Scincos, like in forme and proportion ſomewhat to the Crocodile, but not all ſo big as the Ichneumon: the fleſh whereof ſerveth for a ſingular Antidote or countre-poyſon; as alſo for to provoke the heat of luſt in men.

But to returne againe to the Crocodile: the miſcheefe that he doth is ſo great, that Nature is
C not content to have given him one mortall enemie and no more; and therefore the Dolphins alſo enter the river Nilus in deſpight of the Crocodiles,that take themſelves for kings there,as if this river were their peculiar kingdome: but ſeeing they be otherwiſe inferior to the Crocodiles in ſtrength, who alwaies drive them away from preiding or feeding there, they deviſe to overmatch him in ſlie craft and ſubtiltie,and ſo kill him. And in truth they have certain fins or wings as it were upon their backe, as trenchant and keene as knives, properly made as it were, for this purpoſe. For ſurely all creatures are herein naturally very skilfull and cunning, to know not onely their owne good,and what is for them, but alſo what may hurt and annoy their enemies. Ware they bee what offenſive weapons they have, and of what force they are: they are not ignorant of
D fit occaſions and opportunities to take their vantage, ne yet of the weake parts of their occurrents,by which they may aſſaile and conquer them the ſooner. Thus the Dolphins knowing full well,that the skin of the Crocodiles bellie is thin and ſoft, make as though they were afraid of them as he commeth,and ſo dive under the water, untill he have gotten under his bellie, & then punch and cut it with the foreſaid ſharp-pointed finnes. Moreover,there is a kind of people that carie a deadly hatred to the Crocodile,and they bee called Tentyrites,of a certaine Iſland even within Nilus,which they inhabite. The men are but ſmall of ſtature, but in this quarrell againſt the Crocodiles,they have hearts of Lions,and it is wonderfull to ſee how reſolute and courageous they are only in this behalfe. Indeed,this Crocodile is a terrible beaſt to them that flie from him: but contrarie,let men purſue him or make head againe, hee runneth away moſt cowardly. Now,theſe Iſlanders be the onely men that dare encountre him affront. Over and beſides, they
E will take the river, and ſwim after them,nay they will mount upon their backes, and ſit them like horſemen: and as they turne their heads,with their mouth wide open to bite or devour them, they will thruſt a club or great cudgell into it croſſe overthwart, and ſo holding hard with both hands each end thereof,the one with the right,and the other with the left,and ruling them perforce (as it were) with a bit and bridle, bring them to land like priſoners: when they have them there,they will ſo fright them onely with their words and ſpeech,that they compell them to caſt up and vomit thoſe bodies againe to bee enterred, which they had ſwallowed but newly before. And therfore it is,that this is the only Iſland which the Crocodiles wil not ſwim unto: for the very ſmell and ſent of theſe Tentyrites is able to drive them away,like as the Pſelli with their ſavour put Serpents to flight. By report, this beaſt ſeeth but badly in the water: but be they once with-
F out,they are moſt quicke-ſighted. All the foure Winter months they live in a cave, and eat nothing at all. Some are of opinion,that this creature alone groweth all his life: and ſurely a great time he liveth.

The ſame river Nilus bringeth foorth another beaſt called Hippopotamus, *i.* a River-horſe. Taller hee is from the ground than the Crocodile: hee hath a cloven foot like a bœufe:

the backe, maine, and haire of an horſe: and he hath his neighing alſo. His muzzle or ſnout turneth up: his taile twineth like the bores, and his teeth likewiſe are crooked and bending downewards as the bores tuskes, but not ſo hurtfull: the skin or hide of his backe unpenetrable [whereof are made targuets and head-peeces of doutie proofe, that no weapon will pierce] unleſſe it be ſoked in water, or ſome liquor. He eateth down the ſtanding corne in the field: and folke ſay, that he ſetteth downe beforehand where he will paſture and feed day by day: and when he ſetteth forward to any field for his releeſe, he goeth alwaies backeward, and his tracts are ſeene leading from thence, to the end, that againſt his return he ſhould not be forelaied, nor followed by his footing.

Chap. xxvi.

Who firſt ſhewed the River-horſe and Crocodiles at Rome. Alſo the medicinable meanes found out by the ſaid dumbe creatures.

Marcus Scaurus was the firſt man, who in his plaies and games that hee ſet out by his office of Ædileſhip, made a ſhew of one Water-horſe, and foure Crocodiles, ſwimming in a poole or mote made for the time during thoſe ſolemnities.

The River-horſe hath taught Phyſicians one deviſe, in that part of their profeſſion which is called Chirurgerie. For he finding himſelfe over-groſſe and fat, by reaſon of his high feeding ſo continually, getteth forth of the water to the ſhore, having eſpied afore where the reeds and ruſhes have been newly cut: and where he ſeeth the ſharpeſt cane and beſt pointed, hee ſetteth his bodie hard to it, for to pricke a certaine veine in one of his legges, and thus by letting himſelfe bloud, maketh evacuation: whereby his bodie, otherwiſe enclining to diſeaſes and maladies, is well eaſed of the ſuperfluous humour: and when he hath thus done, he ſtoppeth the orifice again with mud, and ſo ſtancheth the bloud, and healeth up the wound.

Chap. xxvii.

What Phyſicall hearbes certain creatures have ſhewed us, to wit, the Harts and Stags, the Lizards, Swallowes, Torteiſes, the Weaſell, the Storke, the Bore, the Snake, Dragon, Panther, Elephant, Beares, ſtocke Doves, houſe Doves, Cranes, and Ravens.

THe like deviſe to this, namely of clyſtres, we learned firſt of a foule in the ſame Ægypt, which is called Ibis (or the blacke Storke.) This bird having a crooked and hooked bill, uſeth it in ſteed of a ſyringe or pipe, to ſquirt water into that part, whereby it is moſt kind and holſome to void the doung and excrements of meat, and ſo purgeth and cleanſeth her bodie. Neither have dumbe creatures directed us to theſe feats onely practiſed by the hand, which might ſerve for our uſe to the preſervation of our health and cure of diſeaſes. For the Harts firſt ſhewed us
2 the vertue of the hearbe Dictamnus or Dittanie, to draw out arrowes forth of the bodie. Perceiving themſelves ſhot with a ſhaft, they have recourſe preſently to that hearbe, and with eating thereof, it is driven out againe. Moreover, they alſo when they are ſtung with the Phalangium, a
3 kind of ſpider, or ſome ſuch venomous vermine, cure themſelves with eating crai-fiſhes, or freſh-water crabbes.

There is a certaine hearbe called Calaminth, moſt ſoveraigne and ſingular againſt the biting of Serpents: wherewith the Lizards, whenſoever they have fought with them, cure their wounds by applying it thereto.

Celendine [the greater] a moſt holeſome hearbe for the eieſight, the Swallowes taught us how to uſe. For with it they helpe their young ones, when their eies be ſore, & put them to griefe.

The land Torteiſe by eating of a kind of Saverie or Marjaram, which they call *Cunila bubula*, armeth himſelfe againſt poyſon, when he ſhould fight with Serpents.

The Weaſell uſeth Rue as a preſervative, when hee purpoſeth to hunt for Rats, in caſe hee ſhould joine in fight with any of them.

The Storke feeling himſelfe amiſſe, goeth to the hearbe Organ for remedie. And the Bore, when hee is ſicke, is his owne Phyſician, by eating yvie and crab-fiſhes, ſuch eſpecially as the ſea caſteth up to ſhore.

The Snake by reſtineſſe and lying ſtill all Winter, hath a certaine membrane or filme growing

A ing over her whole bodie: but having recourſe to Fennell, with the juice thereof ſhe caſteth that old coat that cloggeth her, and appeareth freſh, ſlicke, and young again. Now the manner of this her uncaſing, is this: ſhe beginneth firſt at the head, and turneth the skin over it, and thus ſhe is a whole day and a night a folding it backeward, before the inſide of that membrane can bee turned outward, and ſo ſhe is cleane rid of it. Moreover, when by lying ſtill and keeping cloſe all the Winter time, her ſight is become dim and darke, ſhee rubbeth and ſcoureth her ſelfe with the ſaid hearbe Fennell, and therewith annointeth and comforteth her eies. But if the skales that are overgrowne her skin, be hard and ſtiffe, not willing to part and be removed, ſhee maketh no more adoe, but ſcratcheth them with ſharpe juniper prickes.

The Dragon finding a certaine loathing of meat, and overturning of her ſtomacke in the
B Spring time, cureth and helpeth the ſame with the juice of the wild Lectuce.

The barbarous people when they hunt the Panthers, rub the gobbets of fleſh, which they lay as a bait for them, with Aconitum (a kind of poyſon-full hearb.) The beaſts have no ſooner touched the fleſh, but preſently their throat ſwelleth, and they are readie to bee ſtifled and choked: wherupon ſome men have called this venomous hearb Pardalianches, *i.* Libard baine, or choke Libard. But the wild beaſt hath a remedie againſt this, namely, the ordure and excrements of a man: yea, and at other times alſo, when he is not thus poyſoned, ſo eager he is thereof, that when the ſheepheards for the nonce have hanged them up aloft in ſome veſſell above their reach, although they leape up at them, hee is readie to faint with mounting on high, and ſtraining to get the ſame, and in the end killeth himſelfe therwith, and lieth dead on the ground. And yet otherC wiſe he is too untoward for to be killed, and ſo long it is ere he will die, that when he is paunched, and his very guts come forth of his bellie, he will live ſtill, and fight.

The Elephant if he chaunce to let the [Lizard] Chameleon goe downe his throat among other hearbes or leaves, (which this Lizard alwaies is like unto in colour) hee goeth ſtreightwaies to the wild Olive, the onely remedie he hath of this poyſon.

Beares, when they have eaten Mandrage apples, licke up Piſmires to cure themſelves withall.

The Stag and Hind feeling themſelves poyſoned with ſome venomous weed among the graſſe where they paſture, goe by and by to the Artichoke, and therewith cure themſelves.

The Stock-doves, the Iaies, Merles, Blackbirds, Ouſels, recover their appetite to meat, which once in a yeare they looſe, with eating Bay-leaves that purge their ſtomacke. Partridges, Houſe-
D doves, Turtledoves, and all Pullein, as Hens, Cockes, and Capons, doe the like with Parietarie of the wall. Duckes, Geeſe, and other water-foules purge with the hearbe Endive or Cichorie. Cranes and ſuch like helpe themſelves that way with the Mariſh reed.

The Raven when he hath killed the Chameleon, and yet perceiving that hee is hurt and poyſoned by him, flieth for remedie to the Lawrell, and with it repreſſeth and extinguiſheth the venome that he is infected withall.

Chap. xxviii.

The Prognoſtication of weather, taken by the obſervation of dumbe creatures.

E

MOreover, the ſame univerſall Nature hath given a thouſand properties beſides unto beaſts: and namely, hath endued very many of them with the knowledge and obſervation of the aire above, giving us good meanes by them diverſe waies, to fore-ſee what weather wee ſhall have, what winds, what raine, what tempeſts will follow: which to decipher in particular, it is not poſſible, no more than to diſcourſe throughly of their other qualities they have, reſpective to the ſocietie with every man. For they advertiſe and warne us beforehand of dangers to come, not onely by their fibres and bowels (about the skill and preſage whereof, the moſt part of the world is amuſed) but alſo by other manner of tokens and ſignifications. When an houſe is readie to tumble-downe, the mice goe out of it before: and firſt of all, the ſpiders with their
F webs fall down. As for the flight of birds and their fore-tokening, called Augurie, there is an Art of it, and the knowledge thereof is reduced into a method, in ſo much as at Rome there was a colledge of Augures inſtituted: by which it may appeare in what account and regard that ſacerdotall dignitie and profeſſion was. In Thracia, which is a cold and frozen countrey, the Fox alſo will not paſſe over any river or poole that is frozen, before hee trie the thickneſſe of the yce

by

by his eare, and otherwise it is a beast most quicke of hearing. And observed it is, that men never venture therupon, but when he goeth to releefe, or returneth from thence, and then he laieth his eare close to the yce, and guesseth thereby how thicke the water is frozen. G

Chap. xxix.

What citties and nations have been utterly destroied by little beasts.

NOthing is more certain and notorious than this, that much hurt and dammage hath ben known to come from small contemptible creatures, which otherwise are of no reckoning and account. *M. Varro* writeth, That there was a towne in Spain undermined by Connies: and another likewise in Thessalie, by the Moldwarpes. In Fraunce, the inhabitants of one citie were driven out and forced to leave it, by Frogs. Also in Affricke the people were compelled by Locusts to void their habitations: and out of Gyaros an Island, one of the Cyclades, the Islanders were forced by Rats & Mice to flie away. Moreover, in Italie the citie Amyclæ was destroied by Serpents. In Æthyopia, on ths side the Cynamolgi, there is a great countrey lieth wast and desert, by reason that it was dispeopled sometime by Scorpions, and a kind of Pismires called Solpugæ. And if it be true that *Theophrastus* reporteth, the Treriens were chased by certaine worms called Scolopendres. But now let us returne to other kinds of wild beasts. H

Chap. xxx.

Of the Hyæna, Crocuta, Mantichora, Bievers, and Otters. I

AS touching Hyænes, it is commonly beleeved, that they have two natures, and that every second yeere they chaunge their sexe, being this yeere males, and the next yeere females. Howbeit, *Aristotle* denieth it. Their necke and the mane therewith, together with the backe, are one entire bone without any joint at all, so as they cannot bend their necke without turning the whole bodie about. Many strange matters are reported of this beast, and above all other, that hee will counterfet mans speech, and comming to the sheepheards cottages, will call one of them forth, whose name he hath learned, and when he hath him without, all to worrie and teare him in peeces. Also it is said, that hee will vomit like a man, thereby to traine dogs to come unto him, and then will devour them. Also, this beast alone of all others, will search for mens bodies within their graves and sepulchers, and rake them forth. The female is sildome taken. Hee chaungeth his eies into a thousand diverse colours. Moreover, if a dog come within his shadow, he presently looseth his barking, and is quite dumbe. Againe, by a kind of magicall charme or enchantment, if he goe round about any other living creature but three times, it shall not have the power to stirre a foot, and remoove out of the place. The Lionesses of Æthyopia, if they bee covered with any of this kind, bring forth another beast called Leocrocuta, which likewise knoweth how to counterfet the voice both of man, and of other beasts. He seeth continually with both eies: hee hath one entire bone in steed of teeth in either jaw (and no gombs at all) wherewith he cutteth, as with a knife. Now these bones, because they should not waxe dull and blunt with continuall grating one against the other, they are enclosed each of them within a case or sheath. K L

Iuba reporteth, that the Mantichora also in Æthyopia resembleth mens language. Great store of Hyenes be found in Affricke: which also yeeldeth a multitude of wild asses. And one of the males is able to rule and lead a whole flocke of the female asses. This beast is so jealous, that they looke narrowly to the females great with young: for so soone as they have foled, they bite off the cods of the little ones that be males, and so gueld them. But contrariwise, the she asses when they be big, seeke corners, and keepe out of their way, that they might bring forth their young secretly without the knowledge of the Stallons: for desirous they are to have many males: so letcherous they be, and glad evermore to be covered.

The Bievers in Pontus gueld themselves, when they see how neere they are driven, and bee in danger of the hunters: as knowing full well, that chased they bee for their genetoires: and these their stones, Physicians call Castoreum. And otherwise, this is a daungerous and terrible beast with his teeth. For verily, hee will bite downe the trees growing by the river sides, as if they were cut with an axe. Looke where he catcheth hold of a man once, he never leaveth nor letteth loose untill hee have knapped the bone in sunder, and heard it cracke againe. Tailed hee is like a fish, M

otherwise

A otherwiſe he reſembleth the Otter. Both theſe beaſts live in the water altogether, and carrie an haire ſofter than any plume or downe of feathers.

Chap. xxxi.

Of Frogs, Sea-calves, and Star-Liſards called Stelliones.

THe venomous frogs and todes called Rubetæ, which live both on land, and alſo in the wa-
ter, yeeld many good things medicinable. It is ſaid, that their manner is to let goe and caſt
from them all that is good within them, receiving onely to themſelves all the poyſon: and
when they have beene at their food, take the ſame up againe. The Sea-calfe likewiſe liveth both
B in the ſea, and upon the land: and hath the ſame nature and qualitie that the beiver is, for hee ca-
ſteth up his gall, which is good for many medicines: and ſo he doth his runnet in the maw, which
is a ſingular remedie for the falling ſickneſſe: for well is he ware, that men ſeeke after him for theſe
two things. *Theophraſtus* writeth, That the Liſards called Stelliones, caſt their old coat, like as
ſnakes doe: but when they have ſo done, they eat it up againe, and ſo prevent men of the helpe
thereby for the ſaid falling evill. He reporteth beſides, that their ſtings and bitings in Greece be
venomous and deadly: but in Sicilie harmeleſſe.

Chap. xxxii.

Of red and fallow Deere.

C THe Bucke or Stag, albeit that he be the moſt gentle and mild beaſt in the world, yet is he as
envious as the reſt, & loth to part with that which is good for others. Howbeit, if he chance
to bee overlaied with hounds, then gently of himſelfe hee hath recourſe to a man. Likewiſe,
the Hinds when they are to calve, chuſe rather ſome place neere to the paths and waies that are
beaten with mans ſteps, than ſecret corners; for feare of other wild beaſts. They begin to goe to
rut after the riſing of the ſtarre Arcturus, which is much about the firſt of September: they goe
eight months: and otherwhiles bring two calves at once. Finding themſelves that they are ſped,
they part companie with the Stags. But they againe ſeeing themſelves forſaken, fall into a kind
of rage for heat of luſt, and dig pits in the ground where they lie hidden. Then begin their muz-
D zles to looke blacke, and ſo continue, untill ſuch time as ſome raine waſh away that colour. The
Hinds before they calve, purge themſelves with the hearbe Seſelis or Siler-mountaine, whereby
they have leſſe paine in their bearing, and more ſpeedie & eaſie deliverance. After they are ligh-
tened of their burden, they know where two hearbes be, which they have preſently recourſe un-
to, Woke Robin, and the foreſaid Siler-mountaine. When they have eaten well thereof, they re-
turne preſently to their young. And (for what ſecret reaſon in Nature, God knowes) their firſt
milke muſt have a taſt and talang of thoſe two hearbs. Their little ones they practiſe and exerciſe
to uſe their legs from the very beginning, ſo ſoon as they be come into the world: teaching them
even then how they ſhould run away and flie. To high & ſteepe cragged rockes they bring them,
and there ſhew them how to leape, and withall acquaint them with their dens and places of har-
E borough. And now by this time, the Stags being paſt the heat of the rut, fall hard to their meat,
and feed apace. But ſo ſoone as they find themſelves to be growne very fat, they ſeek lurking pla-
ces, and there abide, confeſſing as it were how heavie and unweldie they be for fatneſſe, and how
uncommodious it is unto them. At other times alway they uſe in their flight to make ſtaies, and
take their breath, & as they ſtand ſtill, to look behind them. But when they eſpie once the hounds
and hunters to be neere unto them, then they fall to running afreſh. And this they doe for a pain
that they have in their guts, which are ſo weake and tender, that with a ſmall blow or ſtripe given
unto them, they will burſt within their bellies. When they perceive the hunt is up, and heare the
hounds crie, they preſently run, but ever downe the wind, to the end that the ſent of their feet
ſhould paſſe away with them. They take great pleaſure and delight in the ſound of ſheepheards
F pipes, and their ſong withall. When they ſet up their eares, they are moſt quick of hearing: when
they let them hang downe, they bee as deafe. Moreover, they are very ſimple and fooliſh crea-
tures: amuſed, yea, and amaſed they will bee at every thing, and keepe a wondering at it: inſo-
much, as if an horſe, a cow, or an heifer approch neere unto them, they will ſtand gazing at
it, and never regard the hunters neere by: or if they happen to ſpie him, they will looke at

his

his verie bow, and ſheive of arrowes, as at ſtraunge and wonderous things. They paſſe the C
ſeas ſwimming by flockes and whole heards in a long row, each one reſting his head upon
the buttockes of his fellow next before him: and this they doe in courſe, ſo as the foremoſt
retireth behind to the hindmoſt, by turnes one after another: and this is ordinarily obſerved
by thoſe ſailers that paſſe from Cilicia to Cypres. And yet in their ſwimming they deſcrie no
land by the eye, but only by their ſmelling have an aime thereat. The males of this kind are hor-
ned, and they (above all other living creatures) caſt them everie yeere once, at a certaine time
of the ſpring: and to that purpoſe a little before the very day of their mewing, they ſeek the moſt
ſecret corners and moſt out of the way, in the whole forreſt. When they are pollards, they keepe
cloſe hidden, as if they were diſarmed: and all this they do, as if they envied that men ſhould have
good of any thing that they had. And in very truth, the right horn (they ſay) can never be found, H
as if it had ſome rare and ſingular vertue in Phyſicke. A ſtraunge and marveilous thing, conſi-
dering that in the parkes they chaunge them every yeere, inſomuch as it is thought verily, that
they hide them within the earth. But burne whether of them ye will, the left as well as the right,
this is certein, That the ſmell and perfume thereof driveth ſerpents away, and diſcovereth them
that are ſubject to the fits of the falling diſeaſe. A man may alſo know their age by their heads,
for every yeere they have one knag or braunch more in their horns than before, untill they come
to ſix: after which time, they come new ever alike; ſo as their age cannot be diſcerned any more
by the head, but the marke is taken by their mouth and teeth: for as they grow in age, they have
few or no teeth at all, ne yet grow the braunches out at the root, whereas all the while they were
younger, they uſed to have them breake forth and ſtanding out at the very fore-head. After they I
be guelded once, neither caſt they their hornes which they had before, neither grow there any
if they had none when they were libbed. At the firſt when they breake out againe, like they be to
the glandules or kernels of drie skin, that new put forth: then grow they with tender ſtalkes, into
certaine round and long knobs of the reed mace, covered all over with a certaine ſoft plume
downe like velvet. So long as they be deſtitute of their hornes, and perceive their heads naked,
they goe foorth to releeſe by night; and as they grow bigger and bigger, they harden them in
the hot ſunne, eftſoons making proofe of them againſt trees; and when they perceive once that
they be tough and ſtrong enough, then they goe abroad boldly. And certeinely ſome of them
have been taken with green Ivie ſticking faſt and growing in their hornes, remaining there ſince
time that they ran them (when they were but tender) againſt ſome trees, for triall whether they K
were good or no, and ſo chaunced to race the Ivie from the wood of the tree. You ſhall have
them ſomtime white of colour, and ſuch an one was the hind that *Q. Sertorius* had about, which
he perſuaded the people of Spaine to be his ſoothſayer, and to tell him of things to come. This
kind of Deere maintaine fight with ſerpents, and are their mortall enemies: they will follow
them to their verie holes, and there (by the ſtrength of drawing and ſnuffing up their wind at the
noſtrils) force them out whether they will or no: and therfore there is not ſo good a thing again
to chaſe away ſerpents, as is the ſmoke and ſmell of an Harts horne burnt. But againſt their ſting
or biting, there is a ſingular remedie, with the runnet in the maw of a fawne or Hind-calfe killed
in the dams belly. It is generally held and confeſſed, that the Stagge or Hind live long: for an
hundred yeer after *Alexander* the Great, ſome were taken with golden collars about their necks, L
overgrowne now with haire and growne within the skin: which collars, the ſaid king had done
upon them. This creature, of all diſeaſes is not ſubject to the fever, but he is good to cure it. I have
knowne great ladies and dames of ſtate, uſe every morning to eat the veniſon of red Deere, and
thereby to have lived to a great age and never had the ague: but it is thought this is a certaine
remedie and never faileth, in caſe the ſtag be ſtrucken ſtarke dead at once with one wound and
no more.

Chap. xxxiii.

Of the ſhag-haired and bearded Stagge like to a Goat: as alſo of the Chamæleon. M

OF the ſame kind is the Goat hart, and differing onely in the beard and long ſhag about the
ſhoulders, which they call Tragelaphis: and this breedeth no where but about the river
Phaſis. Affricke in a manner is the onely countrey that breedeth no ſtags and hinds: but

contrari-

A contrariwiſe, it bringeth Chamæleons; although India hath them ordinarily in greater number. In ſhape and quantitie it is made like a Liſard, but that it ſtandeth higher and ſtreighter than the Liſards do, upon his legges. The ſides, flankes, and bellie, meet togither, as in fiſhes: it hath likewiſe ſharpe prickles, bearing out upon the backe as they have: ſnouted it is, for the bigneſſe not unlike to a ſwine, with a very long taile thin and pointed at the end, winding round and entangled like to vipers: hooked clawes it hath, and goeth ſlow, as doth the tortoiſe: his bodie and skin is rough and skalie, as the crocodiles: his eyes ſtanding hollow within his head, and thoſe be exceeding great, one neere unto the other with a verie ſmall portion betweene, of the ſame colour that the reſt of the bodie is: he is alwaies open eyed, and never cloſeth them: hee looketh about him not by mooving the ball of his eye, but by turning the whole bodie thereof: hee ga-
B peth evermore aloft into the aire, and is the onely creature alive that feedeth neither of meat nor drinke, but hath his nouriſhment of aire onely: about wild fig-trees hee is fell and daungerous, otherwiſe harmeleſſe. But his colour naturally is very ſtraunge and wonderfull, for ever and anon he chaungeth it, as well in his eye, as taile and whole bodie beſides: and looke what colour he toucheth next, the ſame alwaies he reſembleth, unleſſe it be red and white. When he is dead, he looketh pale and wan: very little fleſh he hath in head and chawes, and about the joynt where his taile is graffed to his rumpe; but in all the bodie beſides, none at all. All his blood is in his heart, and about his eyes: among other his bowels, he is without a ſplene. Hidden hee lyeth all winter long, as Liſards doe.

C

Chap. xxxiiii.

Of the Buffe, or Tarandus: the Lycaon, and the Thos.

IN Scythia there is a beaſt called Tarandus, which chaungeth likewiſe colour as the Chamæleon: and no other creature bearing haire doth the ſame, unleſſe it be the Lycaon of India, which (by report) hath a maned necke. As for the Thoes (which are a kind of wolves ſomewhat longer than the other common wolves, and ſhorter legged, quicke and ſwift in leaping, living altogether of the veniſon that they hunt and take, without doing any harme at all to men) they may be ſaid, not ſo much to chaunge their hew, as their habite and apparell: for all winter time they be ſhag-haired, but in ſummer bare and naked. The Tarandus is as bigge as an oxe,
D with an head not unlike to a ſtagges, but that it is greater, namely, carrying braunched hornes: cloven hoofed, and his haire as deepe as is the Beares. The hide of his backe is ſo tough and hard, that thereof they make breſt-plates. He taketh the colour of all trees, ſhrubs, plants, flowers, and places wherein he lieth when he retireth for feare; and therefore ſeldome is he caught. But when he liſt to looke like himſelfe and be in his owne colour, he reſembleth an Aſſe. To conclude, ſtraunge it is that the bare bodie of a beaſt ſhould alter into ſo many colours: but much more ſtraunge it is and wonderfull, that the haire alſo ſhould ſo chaunge.

Chap. xxxv.

Of the Porkpen.

E

THe Porkpens come out of India and Affricke: a kind of Vrchin or Hedgehog they be: armed with pricks they be both; but the Porkpen hath the longer ſharpe pointed quilles, and thoſe, when he ſtretcheth his skin, he ſendeth and ſhooteth from him: when the hounds preaſeth hard upon him, hee flyeth from their mouthes, and then taketh vantage to launce at them ſomewhat farther off. In the winter he lyeth hidden, as the nature is of many beaſts to doe, and the Beares above the reſt.

Chap. xxxvi.

Of the Beares, and how they breed and bring forth their young.

F

THey ingender in the beginning of winter, not after the common manner of other fourfooted beaſts, but lying both along, claſping and embracing one another: then they goe apart into their dennes and caves, where the ſhee beare thirtie daies after is diſcharged of her burden, and bringeth forth commonly five whelpes at a time. At the firſt, they ſeeme to be a lumpe

lumpe of white fleſh without all forme, little bigger than rattons, without eyes, and wanting hair: G
onely there is ſome ſhew and apparance of clawes that put forth. This rude lumpe, with licking they faſhion by little and little into ſome ſhape: and nothing is more rare to be ſeen in the world, than a ſhee beare bringing foorth her young: and this is one cauſe that the male beares are not to be ſeene in 40 daies, nor the female for 4 moneths. If they have no holes and dennes for the purpoſe, they build themſelves cabbins of wood, gathering together a deale of boughes and buſhes, which they couch and lay artificially together, to beare off any ſhowre, ſo as no raine is able to enter; and thoſe they ſtrew upon the floore with as ſoft leaves as they can meet withall. For the firſt fourteen daies (after they have taken up their lodging in this manner) they ſleepe ſo ſoundly, that they cannot poſſibly be wakened, if a man ſhould lay on and wound them. In this drowſineſſe of theirs, they grow wondrous fat. This their greaſe and fat thus gotten, is it that is H
ſo medicinable, and good for thoſe that ſhed their haire. Theſe 14 dayes once paſt, they ſit upon their rumpe or buttocks, and fall to ſucking of their fore-feet, and this is all their food whereof they live for the time. Their young whelpes, when they are ſtarke and ſtiffe for cold, they huggle in their boſome and keepe cloſe to their warme breaſt, much like to birds that ſit upon their egs. A ſtraunge and wonderfull thing it is to be told, and yet *Theophraſtus* beleeveth it, That if a man take beares fleſh during thoſe daies, and ſeeth or bake the ſame, if it be ſet up and kept ſafe, it will grow nevertheleſſe. All this time they dung not, neither doth there appeare any token or excrement of meat that they have eaten: and very little water or aquoſitie is found within their bellie. As for blood, ſome few ſmall drops lie about the heart only, and none at all in the whole bodie beſides. Now when ſpring is come, forth they goe out of their denne; but by that time, the I
males are exceeding overgrowne with fat: and the reaſon thereof cannot be readily rendred: for as we ſaid before, they had no more but that fortnights ſleepe to fat them withall. Being now gotten abroad, the firſt thing that they doe, is to devoure a certaine hearb named Aron, *i.* Wake-robin, and that they doe to open their guts, which otherwiſe were clunged and growne togither: and for to prepare their mouthes and teeth again to eat, they whet and ſet the edge of them with the yong ſhoots and tendrons of the briers and brambles. Subject they are many times to dimneſſe of ſight: for which cauſe eſpecially they ſeeke after hony-combes, that the bees might ſettle upon them, and with their ſtings make them bleed about the head, and by that meanes diſcharge them of that heavineſſe which troubleth their eyes. The Lions are not ſo ſtrong in the head, but beares be as weake and tender there: and therefore when they be chaſed hard by hun- K
ters and put to a plunge, ready to caſt themſelves headlong from a rocke, they cover and arme their heads with their fore-feet and pawes, as it were with hands, and ſo jumpe downe: yea and many times, when they are baited in the open ſhew-place, we have knowne them laid ſtreaking for dead with one cuffe or box of the eare given them with a mans fiſt. In Spaine it is held for certaine, that in their braine there is a venimous qualitie; and if it be taken in drinke, driveth men into a kind of madneſſe, ſo as they will rage as if they were beares: in token whereof, whenſoever any of them be killed with baiting, they make ſure worke and burn their heads all whole. When they liſt, they will go on their two hinder feet upright: they creepe downe from trees backward: when they fight with bulls, their manner is to hang with all their foure feet, about their head and hornes, and ſo with the very weight of their bodies wearie them. There is not a living creature L
more craftie and fooliſh withall, when it doth a ſhrewd turne. We find it recorded in the Annals of the Romanes, that when *M. Piſo* and *M. Meſſala* were Conſuls, *Domitius Ænobarbus* an Ædile Curule, upon the 14 day before the Calends of October, exhibited 100 Numidian beares to be baited and chaſed in the great Cirque, and as many Æthiopian hunters. And I marveile much, that the chronicle nameth Numidian, ſince it is certein, that no bears come out of Africk.

Chap. xxxvii.

Of the Rats of Pontus, and the Alpes: alſo of Vrchins and Hedgehogs.

M
THe Rats of Pontus, which be onely white, come not abroad all winter: they have a moſt fine and exquiſite taſt in their feeding: but I wonder how the Authours that have written this, ſhould come to the knowledge of ſo much. Thoſe of the Alpes likewiſe, *i.* Marmottanes, which are as bigge as Brockes or Badgers, keepe in, during winter: but they are provided

of

A of victuals before-hand which they gather together and carrie into their holes. And ſome ſay, when the male or female is loden with graſſe and hearbs, as much as it can comprehend within all the foure legges, it lieth upon the backe with the ſaid proviſion upon their bellies, and then commeth the other, and taketh old by the taile with the mouth, and draweth the fellow into the earth: thus doe they one by the other in turnes: and hereupon it is, that all that time their backs are bare, and the haire worne off. Such like Marmotanes there be in Ægypt; & in the ſame manner they ſit ordinatily upon their buttocks, and upon their two hinder feet they goe, uſing their fore-feet in ſtead of hands.

Hedgehogs alſo make their proviſion before-hand of meat for winter, in this wiſe. They wallow and roll themſelves upon apples and ſuch fruit lying under foot, and ſo catch them up with
B their prickles, and one more beſides they take in their mouth, & ſo carrie them into hollow trees. By ſtopping one or other of their holes, men know when the wind turneth, and is changed from North to South. When they perceive one hunting of them, they draw their mouth & feet cloſe togither, with all their belly part, where the skin hath a thin down & no pricks at all to do harme, and ſo roll themſelves as round as a foot-ball, that neither dog nor man can come by any thing but their ſharpe-pointed prickles. So ſoon as they ſee themſelves paſt all hope to eſcape, they let their water go and piſſe upon themſelves. Now this urine of theirs hath a poiſonous qualitie to rot their skin and prickles, for which they know well enough that they be chaſed and taken. And therfore it is a ſecret and a ſpecial pollicie, not to hunt them before they have let their urine go; and then their skin is verie good, for which chiefly they are hunted: otherwiſe it is naught ever
C after and ſo rotten, that it will not hang togither, but fall in peeces: all the pricks ſhed off, as being putrified, yea although they ſhould eſcape away from the dogs and live ſtill: and this is the cauſe that they never bepiſſe and drench themſelves with this peſtilent excrement, but in extremitie and utter deſpaire: for they cannot abide themſelves their owne urine, of ſo venimous a qualitie it is, and ſo hurtfull to their owne bodie; and doe what they can to ſpare themſelves, attending the utmoſt time of extremitie, inſomuch as they are ready to be taken before they do it. When the Vrchin is caught alive, the deviſe to make him open again in length, is to beſprinkle him with hot water; and then by hanging at one of their hin-feet without meat they die with famine: otherwiſe it is not poſſible to kil them and ſave their caſe or skin. There be writers who baſh not to ſay, That this kind of beaſt (were not thoſe pricks) is good for nothing, and may well be
D miſſed of men: & that the ſoft fleece of wooll that ſheep bear, but for theſe pricks were ſuperfluous & to no purpoſe beſtowed upon mankind: for with the rough skin of theſe Vrchins, are bruſhes and rubbers made to bruſh & make clean our garments. And in very truth, many have gotten great gaine and profit by this commoditie and merchandiſe, and namely, with their craftie deviſe of monopolies, that all might paſſe through their hands only: notwithſtanding there hath not ben any one diſorder more repreſſed, and reformation ſought by ſundry edicts and acts of the Senate in that behalfe: every prince hath been continually troubled hereabout with grievous complaints out of all provinces.

Or rather inſtead of tazels that ſhearmen uſe.

Chap. xxxviii.

E *Of the Leontophone, the Once, Badgers, and Squirrils.*

TWo other kinds there be of beaſts, whoſe urine worketh ſtraunge and wonderfull effects. The one is called Leontophonos, and he breedeth in no countrey but where there be lions: a little creature it is, but ſo venimous, that the lyon (king of beaſts, before whome all others tremble) for all his might and puiſſance, dieth preſently if hee taſt never ſo little thereof. And therefore they that chaſe the lion, get all the Leontophones that they can come by, burne their bodies, and with the pouder of them beſtrew and ſeaſon as it were the pieces of other fleſh that they lay for a bait in the forreſt, and thus with the verie aſhes (I ſay) of his enemie, kill him: and deadly and pernicious is it to the lion. No marveile therefore if the lion abhorre and hate him,
F for ſo ſoon as he eſpieth him, he cruſheth him with his pawes, and ſo killeth him without ſetting tooth to his bodie. The Leontophone for his part againe, is as readie to bedrench him with his urine, knowing right well that his piſſe is a verie poiſon to the Lion.

In thoſe countries where the Onces breed, their urine (after it is made) congealeth into a certain ycie ſubſtance, and waxeth dry, & ſo it comes to be a certain precious ſtone like a carbuncle,

glittering and ſhining as red as fire, and called it is Lyncurium. And upon this occaſion many have written, that Amber is engendred after the ſame manner. The Onces knowing thus much, for verie ſpight and envie, cover their urine with mould or earth, and this maketh it ſo much the ſooner to harden and congeale. C

The Grayes, Polcats, or Brocks, have a caſt by themſelves, when they be affraid of hunters: for they will draw in their breath ſo hard, that their skin beeing ſtretched and puffed up withall, they will avoid the biting of the hounds tooth, and checke the wounding of the hunter; ſo as neither the one nor the other can take hold of them.

The Squirrils alſo foreſee a tempeſt comming, and where the wind will blow: for looke in what corner the wind is like to ſtand, on that ſide they ſtop up the mouth of their holes, & make an overture on the other ſide againſt it. Moreover, a goodly broad buſht taile they have, where- H with they cover their whole bodie. Thus you ſee how ſome creatures provide victuals againſt winter, others battle and feed with ſleepe only.

Chap. xxxix.

Of the Viper, land-winkles or Snailes, and Lizards.

OF all other ſerpents, it is ſaid, that the Viper alone lieth hidden in the ground during winter, whereas the reſt keepe within cranies and clifts of trees, or elſe in the hollow chinkes of ſtones: and otherwiſe they are able to endure hunger a whole yeer, ſo they be kept from extreame cold. All the while during their retreat and lying cloſe within, they ſleep as if they were I dead and deprived of their power to poiſon.

In like manner doe Perwinkles and Snailes; but not onely in the winter ſeaſon, but in ſummer againe they lie ſtill, cleaving ſo hard to rocks and ſtones, that although by force they be plucked off and turned with their bellies upward, yet they will not out of their ſhell. In the Baleare Ilands there be a kind of them called Cavaticæ, which never creep out of the holes within the ground, neither live they of any graſſe or greene hearb, but hang together like cluſters of grapes. Another ſort there is of them, but not ſo common, hiding themſelves within the cover of their ſhell, ſticking ever faſt unto them: theſe lie alwaies under the ground, and were in times paſt digged up onely about the Alpes, along the maritime coaſts: but now of late they be diſcovered in Veliternum alſo, where men begin to get them out of the earth. But the beſt of them all and moſt com- K mendable, are thoſe in the Iland Aſtypelæa.

As touching Liſards (deadly enemies to the Snailes or Winkles above-named) men ſay, they live not above ſixe moneths. In Arabia, the Lizards bee a cubite in length: and in the mountaine Niſa of India, they bee foure and twentie foot long; ſome tawnie, ſome light red, and others blew of colour.

Chap. xl.

Of Dogges.

AMong thoſe domeſticall creatures that converſe with us, there be many things worth the L knowledge: and namely, as touching dogges (the moſt faithfull and truſtie companions of all others to a man) and alſo horſes. And in verie truth, I have heard it credibly reported, of a dogge, that in defence of his maſter, fought hard againſt theeves robbing by the high way ſide: and albeit he were ſore wounded even to death, yet would he not abandon the dead bodie of his maſter, but drave away both wild-foule and ſavadge beaſt, from ſeizing of his carkaſſe. Alſo of another in Epirus, who in a great aſſembly of people knowing the man that had murdered his maſter, flew upon him with open mouth, barking and ſnapping at him ſo furiouſly, that he was readie to take him by the throat, untill hee at length confeſſed the fact that ſhould cauſe the dog thus to fome and rage againſt him. There was a king of the Garamants exiled, and recovered his royall ſtate againe by the meanes of 200 dogs that fought for him againſt all thoſe M that made reſiſtance, and brought him home maugre his enemies. The Colophonians and Caſtabaleans, maintained certaine ſquadrons of maſtive dogges, for their warre-ſervice: and thoſe were put in the vaward to make the head and front of the battaile, and were never known to draw backe and refuſe fight. Theſe were their truſtieſt auxiliaries and aid-ſouldiers, and neverſo needie

A as to call for pay. In a battell when the Cimbrians were defeated and put all to the ſword, their dogges defended the baggage, yea, and their houſes (ſuch as they were) carried ordinarily upon charriots. *Iaſon* the Lycian had a dogge, who after his maſter was ſlaine, would never eat meat, but pined himſelfe to death. *Duris* maketh mention of another dogge, which he named Hircanus, that ſo ſoone as the funerall fire of king *Lyſimachus* his maſter was ſet a burning, leapt into the flame. And ſo did another at the funerals of king *Hiero*. Moreover, *Phyliſtus* reporteth as ſtrange a ſtorie of king *Pyrrhus* his dogge: as alſo of another belonging to the tyrant *Gelo*. The Chronicles report of a dog that *Nicomedes* king of Numidia kept, which flew upon the queene *Conſingis* his wife, & all to mangled and worried her, for toying and dallying overwantonly with the king her husband. And to go no farther for examples, even with us here at Rome, *Volcatius* a B noble gentleman (who taught *Ceſelius* the civile law) as he returned home one evening late, riding upon an hackney from a village neere the citie, was aſſailed by a theefe upon the high way, but he had a dog with him that ſaved him out of his hands. *Cælius* likewiſe, a Senatour of Rome, lying ſick at Plaiſance, chanced to be aſſailed by his enemies, wel appointed and armed; but they were not able to hurt and wound him, by reaſon of a dogge that he had about him, untill ſuch time as they had killed the ſaid dogge. But this paſſeth all, which happened in our time, and ſtandeth upon record in the publicke regiſters, namely, in the yeere that *Appius Iunius* and *P. Silus* were Conſuls, at what time as *T. Sabinus* and his ſervants were executed for an outrage committed upon the perſon of *Nero*, ſonne of *Germanicus*: one of them that dyed had a dog which could not be kept from the priſon dore, and when his maſter was throwne downe the ſtaires (called Scalæ Gemoniæ) would not depart from his dead corps, but kept a moſt piteous howling C and lamentation about it, in the ſight of a great multitude of Romans that ſtood round about to ſee the execution and the manner of it: and when one of the companie threw the dogge a 2 peece of meat, he ſtreightwaies carried it to the mouth of his maſter lying dead. Moreover, when the carkaſſe was throwne into the river Tiberis, the ſame dog ſwam after, & made all the means 3 he could to beare it up aflote that it ſhould not ſinke: and to the ſight of this ſpectacle and fidelitie of the poore dogge to his maſter, a number of people ran forth by heapes out of the citie to the water ſide. They be the onely beaſts of all others that know their maſters; and let a ſtraunger unknowne be come never ſo ſodainly, they are ware of his comming, and will give warning. They alone know their owne names, and all thoſe of the houſe by their ſpeech. Be the way never ſo long, and the place from whence they came never ſo farre, they remember it and can goe thither againe. And ſurely, ſetting man aſide, I know not what creature hath a better memorie. As furious and raging as they be otherwhiles, yet appeaſed they will be and quieted, by a man ſitting down upon the ground. Certes, the longer we live, the more things we obſerve and marke ſtill in theſe dogges. As for hunting, there is not a beaſt ſo ſubtle, ſo quicke, and ſo fine of ſent, as is the hound: he hunteth and followeth the beaſt by the foot, training the hunter that leads him by the collar and leaſh, to the very place where the beaſt lieth. Having once gotten an eye of his game, how ſilent and ſecret are they notwithſtanding? and yet how ſignificant is their diſcoverie of the beaſt unto the hunter? firſt, with wagging their taile, and afterwards with their noſe and ſnout, ſnuffing as they doe. And therefore it is no marveile, if when hounds or beagles be over old, wearie, and blind, men carrie them in their armes to hunt, for to wind the beaſt, and by the very ſent of the noſe to ſhew and declare where the beaſt is at harbour. The Indians take great pleaſure to have their ſalt bitches to be lined with tygres: and for this purpoſe, when they goe proud, they couple and tie them togither, and ſo leave them in the woods for the male tygres: howbeit they reare neither the firſt nor ſecond litter of them, ſuppoſing that the dogs thus bred, will be too fierce and eger; but the third, they nouriſh and bring up. Semblably, thus do the Gaules by their dogges that are engendred of wolves: and in every chaſe and forreſt there be whole flocks of them thus engendred, that have for their guide, leader, and captaine, one dogge or other: him they accompanie when they hunt; him they obey and are directed by: for ſurely, they keepe an order among themſelves, of government and maſterſhip. This is knowne for certaine, that the dogges which be neere unto Nilus, lap of the river, running ſtill and never ſtay while they are drinking, becauſe they will give no vantage at all to be a prey unto the greedie Crocodiles. In the voyage that *Alexander* the Great made into India, the king of Albania gave him a dogge of an huge and extraordinarie bigneſſe. And *Alexander* taking great delight and contentment to ſee ſo goodly and ſo faire a dog, let looſe unto him firſt Beares, afterwards

wild Bores; and last of all, fallow Deere. But this dog making no reckoning of all this game, lay still couchant, and never stirred nor made at them. This great Commaunder *Alexander*, a man of a mightie spirit and high mind, offended at the lazinesse and cowardise of so great a bodie, commaunded that he should be killed, and so he was. Newes hereof went presently to the king of Albanie. Whereupon he sent unto him a second dog, with this message, That he should not make triall of this too against such little beasts, but either set a Lion or an Elephant at him: saying moreover, that hee had in all but those two of that kind: and if hee were killed likewise, hee were like to have no more of that race and breed. *Alexander* made no stay, but presently put out a Lion, and immediately hee saw his backe broken, and all to rent and torne by the dog. Afterwards he commaunded to bring forth an Elephant, and in no sight tooke he greater pleasure, than in this. For the dog at the first with his long rough shagged haire, that overspread his whole bodie, came with full mouth, thundering (as it were) and barking terribly against the Elephant. Soone after he leapeth and flieth upon him, rising and mounting against the great beast, now of one side, then of another: maintaining combate right artificially, one while assailing, another while avoiding his enemie: and so nimbly he bestirreth him from side to side, that with continuall turning about too and fro, the Elephant grew giddie in the head, insomuch as he came tumbling downe, and made the ground to shake under him with his fall. Bitches breed and beare young every yeere lightly once: and the due time for them to be with whelpes, is when they are full a yeere old. They goe with young threescore daies. Their puppies come blind into the world: and the more milke they sucke, the later it is ere they receive their sight: but as it is never above twentie daies ere they see, so they open not their eies under seven daies old. Some say, that if a bitch bring but one at a litter, it will see by nine daies: if twaine, it will be ten daies first: and the more puppies shee hath, the more daies it will be in that proportion ere they see. Moreover, that the bitch-whelpe that commeth of the first litter, see strange bugs and goblins. The best of the whole litter is that whelpe, that is last ere it begin to see: or else that which the bitch carrieth first into her kennill. The biting of mad dogs are most dangerous to a man, as we have said before, especially during the dog-daies, while the dog-star Syrius is so hote: for they that are so bitten, lightly are afraid of water, which is a deadly signe. To prevent therefore that dogs fall not mad, it is good for thirtie or fortie daies space, to mingle hens or pullins dung especially with their meat: againe, if they be growing into that rage, or tainted alreadie, to give them Ellebore with their meat.

Chap. xli.

Against the biting of a mad Dog.

THe sure and soveraigne remedie for them that are bitten with a mad dog, was revealed lately by way of Oracle: to wit, the root of a wild rose, called the sweet Brier or Eglantine. *Columella* writeth, That when a whelpe is just fortie daies old, if his taile be bitten off at the nethermost joint, & the sinew or string that commeth after, be likewise taken away, neither the taile will grow any more, nor the dog fall ever to bee mad. I have my selfe observed, that among the prodigies it is reported, how a dog sometime spake, as also that a serpent barked, that yeere when *Tarquine* the prowd was deposed and driven out of Rome.

Chap. xlii.

Of Horses, and their nature.

THe same *Alexander* the Great, of whom erewhile wee spake, had a very straunge and rare horse, whom men called Bucephalus, either for his crabbed and grim looke, or else of the marke or brand of a buls head, which was imprinted upon his shoulder. It is reported, that *Alexander* being but a child, seeing this faire horse, was in love with him, and bought him out of the breed and race of *Philonicus* the Pharsalian, and for him paied sixteene talents. He would suffer no man to sit him, nor come upon his backe, but *Alexander*; and namely, when hee had the kings saddle on, and was also trapped with roiall furniture: for otherwise hee would admit any whomsoever. The same horse was of a passing good and memorable service in the warres: and namely, being wounded upon a time at the assault of Thebes, he would not suffer *Alexander* to

A alight from his backe, and mount upon another. Many other strange and wonderfull things hee did: in regard whereof, when he was dead, the king solemnized his funerals most sumptuously; erected a tombe for him, and about it built a citie that bare his name, Bucephalia. *Cæsar* Dictatour likewise had another horse, that would suffer no man to ride him but his maister: & the same horse had his forefeet resembling those of a man: and in that manner standeth he pourtraied before the temple of *Venus*, Mother. Moreover, *Augustus Cæsar*, late Emperour of famous memorie, made a sumptuous tombe for an horse that he had, whereof *Germanicus Cæsar* compiled a poëme. At Agrigentum there be seene Pyramides over many places where horses were entombed. *Iuba* reporteth, That queene *Semiramis* loved a great horse that she had, so farre forth, that shee was content hee should doe his kind with her. The Scythians verily take a great pride and glorie
B much in the goodnesse of their horses and Cavallerie. A king of theirs happened in combat and single fight upon a challenge to bee slaine by his enemie, and when hee came to despoile him of his armes and roiall habite, the kings horse came upon him with such furie, flinging and laying about him with his heeles, and biting withall, that hee made an end of the conquerour-champion. There was another great horse hoodwinked because hee should cover a mare: but perceiving after that he was unhooded that he served as a stalion to his own dam that foled him, ran up to a steepe rocke with a downefall, and there for greefe cast himselfe downe and died. We find also in record, That in the territorie of Reate there was a mare killed and all to rent an horsekeeper upon the same occasion. For surely these beasts know their parentage, and those that are next to them in bloud. And therefore wee see that the colts will in the flocke more willingly keepe companie
C and sort with their sisters of the former yeere, than with the mare their mother. Horses are so docible and apt to learne, that we find in histories, how in the armie of *Sybaritanes*, the whole troop of horsemen had their horses under them, and used to leape and daunce to certaine musick that they were wonted and accustomed unto. They have a fore-knowledge when battell is toward,
2 they will mourne for the losse of their maisters: yea, and otherwhiles shed teares and weepe pitiously for love of them. When king *Nicomedes* was slaine, the horse for his owne saddle, would never eat meat after, but for very anguish died with famine. *Philarchus* reporteth, That king *Antiochus* having in battell slaine one *Centaretus*, a brave horseman of the Gallogreekes or Galatians, became maister of his horse, and mounted upon him in triumphant wise: But the horse of him that lay dead in the place, and upon whom *Antiochus* was mounted, for very anger and in-
D dignation at this indignitie, passed neither for bitt nor bridle, so as he could not be ruled; and so ran furiously among the crags and rockes, where both horse and man came downe headlong, and perished both together. *Philistus* writeth, That *Dionysius* was forced to leave his horse sticking fast in a quave-mire, and got away: but the horse after hee had recovered himselfe, and was gotten forth, followed the tracts of his maister, with a swarme or cast of bees setling in his mane: and this was the first presage of good fortune that induced *Denis* to usurpe the kingdome of Sicilie. Of what perceivance and understanding they be, it cannot be expressed: & that know those light horsemen full well that use to launce darts and javelines from horseback, by the hard service that they put their horses to; which they performe with great dexteritie & resolution in straining, winding, and turning their bodies nimbly every way. Nay, ye shall have of them to gather
E up darts and javelines from the ground, and reach them againe to the horseman. And commonly we see it to be an ordinarie matter with them in the great race or shew place, when they are set in their geires to draw the chariots, how they joy when they are encouraged and praised; giving
c no doubt a great proofe, and confessing that they are desirous of glorie. At the Secular solemnities, exhibited by *Claudius Cæsar*, in the Circensian games, the horses with the white liverie, (notwithstanding their driver and governor, the charioter, was cast and flung to the ground even within the barres) wan the best price, & went away with the honour of that day. For of themselves they brake and bare downe whatsoever might empeach them of running the race throughout: they did all that ever was to bee done against their concurrents and adversaries of the contrarie side, as well as if a most expert chariot-man had beene over their backes to direct and instruct
F them. At the sight whereof, men were ashamed to see their skill and art to be overmatched & surmounted by horses. And to conclude, when they had performed their race, as much as by law of the game was required, they stood still at the very goale, and would no farther. A greater wonder and presage was this in old time, that in the Circensian games exhibited by the people, the horses after they had flung and cast their governour, ran directly up to the Capitoll, as well as if hee

had ſtood ſtill in his place, and conducted them; and there fetcht three turnes round about the temple of *Iupiter*. But the greateſt of all was this which I ſhall now tell; That the horſes of *Ratumenas*, who had woon the price in the horſe-running at Veij, threw their maiſter down; & came from thence, even out of Tuſcane, as far as to the foreſaid Capitoll, carrying thither the Palme branch and chapelet of *Victorie* woon by *Ratumenas* their maiſter: of whom the gate Ratumena took afterwards the name at Rome. The Sarmatians minding to take a great journey, prepare their horſes two daies before, and give them no meat at all: onely a little drink they allow them, and thus they will ride them gallop 150 miles an end, and never draw bridle. Horſes live many of them 50 yeeres, but the mares not ſo long. In five years they come to their full growth, whereas ſtone horſes grow one yeere longer. The making of good horſes indeed, and their beautie, ſuch as a man would chuſe for the beſt, hath beene moſt elegantly and abſolutely deſcribed by the Poët *Virgill*. And ſomewhat alſo have I written of that argument, in my booke which I lately put foorth, as touching Tournois and ſhooting from horſebacke: and in thoſe points required, and there ſet downe, I ſee all writers in manner to agree. But for horſes that muſt bee trained to runne the race, ſome conſiderations are to be had and obſerved, different from horſes of other uſe and ſervice. For whereas to other affaires and emploiments they may be brought when they are two yeere old colts, and not upward; to the Liſts they muſt not bee brought to enter into any maiſtries there, before they be full five yeares of age. The female in this kind goe eleven moneths compleat with yong, and in the twelfth they fole. Commonly the ſtalion and the mare are put together, when both of them are full two yeares old: and that about the Spring Æquinoctiall, that is to ſay, in mid-march: but if they be kept aſunder untill they are full three years of age, they breed ſtronger colts. The Stalion is able to get colts untill he be three and thirtie yeers old: for commonly when they have ſerved in the race, and run full twentie years, they are diſcharged from thence, & let goe abroad for to ſerve mares. And men ſay that they will hold to fortie years with a little helpe put to the forepart of his bodie, that he may bee lifted up handſomely to cover the mare. Few beaſts beſides are leſſe able to engender and leape the female often, nor ſooner have ynough of them. For which cauſe they be allowed ſome ſpace between every time that they doe their kind. And in one yeare the moſt that the Stallion is able to doe that way, is to cover fifteene mares, and that is ſomewhat with the ofteneſt. If ye would coole the courage, and quench the luſt of a mare, ſhare and clip her mane. And yet are mares ſufficient to beare every yeare, untill they come to fortie. It is reported, that an horſe hath threeſcore and fifteene yeares. Mares only of all other females, are delivered of their foles, ſtanding on their feet: but love them more than any other doe their young. Theſe foles verily, by report, have growing on their forehead, when they bee newly come into the world, a little blacke thing of the bigneſſe of a fig, called Hippomanes, and it is thought to have an effectuall vertue to procure and win love. The dam hath not ſo ſoone foled, but ſhe bites it off, and eats it her ſelfe: and if it chance that any bodie preventeth her of it, and catcheth it from her, ſhee will never let the fole ſucke her. The very ſmell and ſent thereof, if it bee ſtollen away, will drive them into a fit of rage and madneſſe. If peradventure a young fole looſe the damme, the other mares of the common heard that are milch nurces, give their teats to this poore orphan, and reare it up in common. They ſay that for three daies after they be newly foled, the young colts cannot lay their mouth to the ground, and touch it. Moreover, the hotter ſtomacked that an horſe is, the deeper hee thruſteth his noſe into the water as hee drinketh. The Scythians chuſe rather to uſe their mares in warre-ſervice than their ſtone-horſes: the reaſon is this, that their ſtaling is no hinderance to their pace in running their carriere, as it doth the horſe, who muſt needs then ſtand ſtill. In Portugall, along the river Tagus, and about Lisbon, certaine it is, that when the West wind bloweth, the mares ſet up their tailes, and turne them full againſt it, and ſo conceive that genitall aire in ſteed of naturall ſeed: in ſuch ſort, as they become great withall, and quicken in their time, and bring foorth foles as ſwift as the wind, but they live not above three yeares. Out of the ſame Spaine, from the parts called Gallicia and Aſturia, certaine ambling jennets or nags are bred, which wee call Thieldones: and others of leſſe ſtature and proportion every way, named Aſturcones. Theſe horſes have a pleaſant pace by themſelves differing from others. For albeit they bee put to their full pace, a man ſhall ſee them ſet one foot before another ſo deftly and roundly in order by turnes, that it would doe one good to ſee it: and hereupon horſe-breakers (maiſters) have an art by cords to bring an horſe to the like amble. A horſe is ſubject to the ſame diſeaſes in manner that a man is: and beſides, to the turning

of

A of the bladder: like as all other beaſts that labour, either in draught or cariage.

Chap. xliii.

Of Aſſes.

VArro writeth, That *Q. Axius*, a Romane Senatour, bought an Aſſe which coſt him foure hundred thouſand Seſterces: a price in my conceit above the worth of any beaſt whatſoever: and yet (no doubt) hee was able to doe wondrous good ſervice in carrying burdens, plowing the ground, and principally in getting of mules. The chapmen that uſe to buy theſe Aſſes, have a ſpeciall regard to the place from whence they come, and where they bee bred. For in
B Achaia or Greece, thoſe of Arcadia be in greateſt requeſt: and in Italie, thoſe of Reate. This creature of all things can worſt away with cold: which is the cauſe that none of them are bred in Pontus. Neither doe they engender as other ſuch like beaſts in the Spring Æquinoctiall, *i.* about mid-March: but in mid-Iune, about the time of the Sunne-ſteed, when daies be at the longeſt. Hee Aſſes, the more you ſpare them in their worke, the worſe they are for it. The females are at the leaſt thirtie moneths, or two yeares and halfe old before they bring any young: but three yeares is the ordinarie and due time indeed. They goe as long as mares, and juſt ſo many months, and after the ſame manner doe they fole. But after they be covered, they muſt be forced to runne preſently, with beating and laying upon them, or elſe they will let goe their ſeed againe; ſo ſlipperie is their wombe, and ſo unapt to keepe that which once it hath conceived. They are ſeldome
C ſeene to bring foorth two at once. The ſhee Aſſe, when ſhee is about to fole, ſeeketh ſome ſecret blind corner to hide her ſelfe, that ſhee might not bee ſeene of any man. Shee breeds all her life time, which commonly is untill ſhe be thirtie yeeres old. They love their young foles exceeding well: but as ill, or rather worſe, can they abide any water. To their little ones they will goe through fire; but if there be the leaſt brooke or rill betweene, they are ſo affraid of it, that they dare not once dip their feet therein. And verily drinke they will not, but of their accuſtomed fountaines, within the paſtures where they uſe to goe: but they will be ſure to chuſe their way, and goe drie to their drinke, and not wet their hoofe: neither will they goe over any bridges where the planks are not ſo cloſe drawn together and jointed, but that they may ſee the water through, under their
D feet; or the railes of each ſide ſo open, that the river is ſeene. A ſtrange nature they have by themſelves. Thirſtie they are, but bee they never ſo drie, if you chaunge their watering place (as in travelling upon their way) they muſt be forced to drinke with cudgels, or elſe unloden of their burdens. Whereſoever they bee ſtabled, they love to lie at large and have roume ynough. For in their ſleepe they dreame, and have a thouſand fancies appearing to them: inſomuch, as they fling about them with their heeles every way: now if they were not at libertie, and had void ſpace ynough, but ſhould beat againſt ſome hard thing in their way, they would ſoone be lame, & halt withall. They be very gainefull and profitable to their maiſters, yeelding more commoditie than
E the revenues of good farmes. It is well knowne, that in Celtiberia a ſhee Aſſe ordinarily with very breeding may bee worth unto them 400000 Seſterces. For the foling and bringing foorth of Mules, the principall thing to be regarded in the ſhee Aſſe, is the haire about the eares and eielids. For howſoever the whole bodie beſides bee of one and the ſame colour, yet ſhall the mules foled, have as many colours as were there, all over the skin. *Mecænas* was the firſt that at feaſts made a daintie diſh of young Aſſe foles, and preferred their fleſh in his time before the veniſon of wild Aſſes. But when he was dead and gone, they were not thought ſo good meat, nor accepted any whit. If an Aſſe be ſeene to die, looke ſoone after, that the whole race and kind of them will follow to the very laſt.

Chap. xliiii.

Of Mules.

F BEtweene the hee Aſſe and a Mare is a mule engendred, and foled in the twelfth moneth: a beaſt of exceeding ſtrength to beare out all labour and travell. For breeding of ſuch mules, they choſe Mares that are not under foure yeares old, nor above ten. Men ſay, that they will drive away one another in both kinds, and not accompanie together, unleſſe they taſted the milk and ſucked the dam when they were young, of that kind which they would cover. And for this purpoſe

purpoſe they uſe to ſteale away either the young Aſſe foles, and ſet them in the darke to the teats of the Mare, or els the young colts to ſucke of the ſhee Aſſe. For there is a kind of Mule alſo that commeth of a ſtone horſe and a female Aſſe: but of all others they be untoward and unruly, and ſo ſlow withall, that it is unpoſſible to bring them to any good ſervice: & much more (as all things els) if they be farre in age when they engender. If when a ſhee Aſſe hath taken the horſe, and bee ſped, there come an Aſſe and cover her againe, ſhe will caſt her fruit untimely, and looſe all: but it is not ſo if an horſe cover her after an Aſſe. It is obſerved and found by experience, that ſeven daies after an Aſſe hath foled, is the beſt time to put the male unto her, and then ſooneſt will ſhe be ſped: as alſo, that the hee Aſſes being wearie with travell, will better cover the females than otherwiſe, if they be reſtie. That Aſſe is held for barren, which is not covered, nor conceiveth, before ſhe have caſt her ſucking or foles-teeth: whereby the age is knowne: as alſo ſhe which ſtandeth not to the firſt covering but looſeth it. In old time they uſed to call thoſe Hinnuli, which were begotten betweene an horſe and an Aſſe: and contrariwiſe Mules, ſuch as were engendred of an Aſſe and a Mare. Moreover, this is obſerved, that if two beaſts of divers kinds do engender, they bring forth one of a third ſort, and reſembling neither of the parents: alſo, that ſuch begotten in this manner, what kind of creatures ſoever they bee, are themſelves barren and fruitleſſe, unable either to beare or beget young. And this is the cauſe that the ſhee mules never breed. Wee find verily in our Chronicles, that oftentimes Mules brought forth yong foles, but it was alwaies taken for a monſtrous and prodigious ſigne. And yet *Theophraſtus* ſaith, That in Cappadocia ordinarily they doe beare and bring foles: but they are a kind by themſelves. Mules are broken of their flinging and wincing, if they uſe often to drinke wine. It is found written in many Greeke authors, That if an hee Mule cover a Mare, there is engendred that which the Latines call Hinnus, that is to ſay, a little Mule. Betweene Mares and wild Aſſes made tame, are engendred a kind of Mules, very ſwift in running, and exceeding hard hoofed, lanke and ſlender of bodie, but fierce and courageous, and unneth or hardly to be broken. But the Mule that commeth of a wild Aſſe and a female tame Aſſe, paſſeth all the reſt. As for wild Aſſes, the very beſt and floure of them be in Phrygia and Lycaonia. In Affricke, the fleſh of their foles is held for excellent good meat, and ſuch they call Laliſiones. It appeareth in the Chronicles of Athens, that a Mule lived 80 yeares. And reported thus much there is of it, That when they built the temple, within the citadell thereof, this old Mule being for age able to doe nothing elſe, would yet accompanie other Mules that laboured and caried ſtones thither, and if any of them were readie to fall under their lode, would ſeeme to releeve and hold them up, and (as it were) encourage them to his power: inſomuch as the people tooke ſo great delight and pleaſure therein, that they made a decree, and tooke order that no corne-maiſters that bought and ſold grain, ſhould beat this Mule away from their raunging ſives (when they cleanſed or winnowed their corne) but that he might eat under them.

G H I K

Chap. xlv.

Of Buls, Kine, and Oxen.

THe Bœnfes of India are as high by report as Cammels, and foure foot broad they are betweene the hornes. In our part of the world, thoſe that come out of Epirus, are moſt commended, and beare the greateſt price above all others; and namely thoſe, which they ſay are of the race and breed of king *Pyrrhus*, who that way was very curious. For this prince becauſe hee would have a principall good breed, would not ſuffer the Buls to come unto the Kine and ſeaſon them, before they were both foure yeares old. Mightie big they were therefore, and ſo they continue of that kine unto this day. Howbeit, now when they be but heyfers of one year, or two years at the moſt (which is more tollerable) they are let goe to the fellow and breed. Buls may well engender and ſerve kind when they bee foure yeare old: and one of them is able all the yeare long to goe with ten kine, and ſerve their turne. They ſay moreover, that a Bull, after hee hath leapt a cow, and done his kind, if he goe his way toward the right hand, he hath gotten an oxe calfe: but contrariwiſe, a cow calfe, if he take the left hand. Kine commonly take at their firſt ſeaſoning: but if it chaunce that they miſſe and ſtand not to it, the twentieth day after they ſeeke the fellow, and goe a bulling againe. In the tenth month they calve: and whatſoever falleth before that tearme, never proveth nor commeth to good. Some write, that they calve juſt upon the laſt day of the tenth month complete. Seldome bring they foorth two calves at a time. Their ſeaſoning time

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A commonly continueth thirtie daies, namely, from the riſing of the Dolphin ſtarre, unto the day before the Nones of Ianuarie. Howbeit, ſome there be that goe to fellow in Autumne. Certes, in thoſe countries where the people live altogether of milk, they order the matter ſo, that their kine calve at all times, ſo as they are not without their food of freſh milke all the yeare long. Buls willingly leape not above two kine at moſt in one day. Bœufes alone of al living creatures can graſe going backward: and verily among the Garamants they never feed otherwiſe. Kine live not above fifteene yeares at the utmoſt: Buls and Oxen come to twentie. They be in their full ſtrength when they are five yeares old. It is ſaid, that they will grow fat, if they be bathed with hote water: or if a man ſlit their hide, and with a reed or pipe blow wind betweene the fleſh and the skin, even into their entrailes. Kine, Buls, and Oxen, are not to be deſpiſed as unkindly, although they looke B but illfavouredly, and bee not ſo faire to the eie: for in the Alpes, the leaſt of bodie are the beſt milch kine. And the beſt labouring Oxen are they which are yoked by the head, and not the necke. In Syria they have no dewlaps at all hanging under the neck, but bunches ſtanding up on their backs in ſteed therof. They of Caria alſo, a countrey in Aſia, are illfavoured to be ſeen, having between their necks & ſhoulders a tumor or ſwelling hanging over; beſides, their horns are looſe, and (as it were) out of joint: and yet by report they are paſſing good of deed, and labor moſt ſtoutly. Furthermore, it is generally held for certaine, that the black or white in this kind are ſimply the worſt for worke, and condemned. Buls have leſſer and thinner hornes than either Kine or Oxen. The beſt time to bring the Oxe or the Bull to the yoke, and make him draw, is at three yeares of age: after, it is too late; and before, with the ſooneſt. A yong Stere is ſooneſt trained and C taught to draw, if he be coupled in one yoke with another that hath beene wrought alreadie and beaten to his worke. For this beaſt is our companion, and laboureth together with us, in earing and plowing the ground: and ſo highly regarded was the Oxe in old time of our forefathers, that we find it regiſtred upon record, That a certaine Romane was judicially endited, accuſed, & condemned by the people of Rome, for that (to ſatisfie the mind of a wanton minion and catamite of his, who ſaid he had not eaten any tripes all the while he was in the countrey) he killed an Oxe, although he was his owne: yea, and for this fact was baniſhed, as if hee had ſlaine his Grangier and Bailife of his husbandrie. Buls are knowne to bee of a good kind and courageous, by their fierce and grim countenance, for they alwaies looke crabbed and frowning: their eares are overgrowne with ſtiffe haires, and their hornes ſo ſtanding, as if they were ever diſpoſed and readie to D fight. But all his threatening and menaces appeare in his foreſeet; with them hee gives warning, and as he is more and more angrie, hee beſtirreth himſelfe now with the one foot, and then with another, in courſe and by turnes, ſtamping and pawing with them againſt the ground, raiſing and ſlinging the duſt about him aloft into the aire: and of all other beaſts, he alone after this maner enchafeth himſelfe, and giveth an edge unto his anger. I my ſelfe have ſeen them fight one with another for the maiſtrie: I have ſeene them, being turned and ſwong round about in their fall, caught up with the hornes of others, and yet riſe againe and recover themſelves: I have ſeene them lying along, to be raiſed aloft from the ground; and when they have run all amaine with full pace, galloping in their chariots, yet ſtaied and ſtood ſtill when they ſhould, as if the charioters had cauſed them to reſt. The Theſſalians were they who deviſed with prauncing horſe to ride gallop cloſe to the Buls head to take them by the horne, wryth their necks downe, and ſo E kill them. The firſt that exhibited this pleaſant ſhew unto the people at Rome, was *Cæſar* Dictatour. The Bull yeeldeth the principall and moſt ſumptuous ſacrifice of all other unto the gods, and therewith are they beſt pleaſed. This beaſt alone, of all thoſe that are long tailed, when it firſt commeth into the world, hath not the taile of the full meaſure and perfect length, as others: but it groweth ſtill, untill it reach downe to the very heeles, and touch the ground. And hereupon it is, that in chuſing of calves to ſacrifice with, thoſe are allowed for good and ſufficient, whoſe taile commeth downe to the joint of the haugh or gambrill: for if it be ſhorter, they will not be receiF ved and accepted of the gods. This alſo is noted by experience, that calves ſo little (that they bee brought on mens ſhoulders to the altars for to bee killed) lightly are not ſufficient to appeaſe the F gods. Neither are they pacified and well pleaſed with a beaſt that is lame and maimed; nor with that which is not appropriat unto them, but to ſome other gods; ne yet with it that reculeth from the altar, and is loth to come to it. In the prodigies that wee read of auncient times, wee find very often that Kine and Oxen have ſpoke: upon the report of which ſtraunge token, the Senate was ever wont to aſſemble in ſome open place abroad, and not to ſit either in hall or chamber.

CHAP.

Chap. xlvi.

Of the Bœufe or Oxe, named Apis.

IN Ægypt alſo they had an Oxe, which the people of that countrey adored and worſhipped as a god, under the name of Apis. This beaſt was marked in this manner: with a white ſpot on his right ſide, like to the horns or tips of the new moone croiſſant; a knot or bunch under the tongue, which they called Cantharus: by their religion it was not lawfull to ſuffer him to live above a certein number of yeers; at the end of which tearme, they drowne him in a certain well or fountaine of their prieſts, and ſo ſhorten his life; and then with great ſorrow fall to ſeeke another to ſubſtitute in his place: untill they find him, they mourne and waile, and in token of griefe and ſorrow, they ſhave their heads. But long they never are before they meet with another: and when they have him, hee is by the prieſts brought to Memphis: where hee hath two temples, which they call Thalami, *i.* bed-chambers: out of which, all the people of Ægypt, as from an oracle, are enformed truly of things to come. For if this oxe enter into the one of them, it is a good luckie ſigne; but if hee goe into the other, then it portendeth great misfortune and infortunitie. And theſe be generall preſages to the whole nation. As for privat perſons, he foretelleth them of things to come, by the manner of taking meat at their hands who come to know what fortune they ſhall have. He turned away his head from the hand of *Germanicus Cæſar*, & would eat no meat when he offered it him; but he died for it, and that not long after. Hee is kept ſecret and cloſe for the moſt part: but if at any time hee get forth and come abroad to be ſeene of the multitude of people, hee goeth with a guard of tipſtaves to make way for him; and then a companie of pretie boyes goe chaunting before him canticles and ſongs, in his honour and praiſe: for it ſeemeth that he taketh heed to what they ſing, and is well pleaſed and contented thus to be worſhipped. Now theſe quireſters beforeſaid, preſently fall into a kind of furious rage, and withall, are inſpired with the gift of propheſie, and ſo fore-tell what will enſue. Once a yeere there is preſented unto him, a cow, which hath markes likewiſe as hee hath, but differing from his: and alwaies upon what day this cow is found, the ſame day by report, it dieth. At Memphis, there is a place within Nilus, which the inhabitants name Phiola, becauſe it is made in faſhion of a pot or boll: and therein duely everie yeere the Ægyptians drowne two cups, one of ſilver, and another of gold, during ſeven daies, dedicated to ſolemnize the nativitie of their god *Apis*. And this is one thing to be wondered at, That in that ſeven-night ſpace, there is not one that taketh hurt by Crocodiles: but let the eigth day come once, within ſix houres they returne to their former miſchievous crueltie.

Chap. lxvii.

The nature of ſheepe, and their breeding.

SHeepe likewiſe are in great requeſt, both in regard that they ſerve as ſacrifices to pacifie the gods, and alſo by reaſon that their fleece yeeldeth ſo profitable an uſe: for even as men are beholden to the bœufe for their principall food and nouriſhment which they labour for, ſo they muſt acknowledge, that they have their cloathing and coverture of their bodies from the poore ſheepe. The ramme and ewe both, are fit for generation from two yeeres of age upward untill they come to nine, and ſome alſo untill they be ten yeers old. The lambes that they yeane firſt, are but little ones. They goe all generally to rut about the ſetting of Arcturus, that is to ſay, upon the third day before the Ides of May: and their heat laſteth unto the full of the Ægle ſtar, namely, the tenth day before the Calends of Auguſt. They be with young 150 daies. If any take the ramme after that time, the fruit that they beare commeth to no good, but proove weake. And ſuch lambs as fall after that ſeaſon, they called in old time *Cordos*, *i.* later lambs. Many men doe prefer theſe winter lambs before thoſe that come in ſpring: the reaſon is, becauſe it is much better they ſhould be ſtrong before the heat of ſummer and the long daies, than againſt the cold of winter and the ſhorteſt daies: and they thinke, that this creature onely taketh good by being yeaned in the mids of winter. It is kind and naturall for rammes to make no account of young hogrels, but to loath them; for they had rather follow after old ewes. Himſelfe alſo is better when he is old, and more luſtie to leape the ewes. To make them more mild and gentle, they uſe to

bore

bore his horne about the root neere unto his eares. If his right cullion or ſtone be tied up, hee getteth ewe lambs; but if the left be taken up, hee getteth ramme lambes. If ewes be alone by themſelves without the flocke when it thundreth, they caſt their lambes. The onely remedie is to gather them togither, that by companie and fellowſhip they may have helpe. They ſay, that if the North winds blow when they take the ramme, they will bring forth males; but if the South winds be up, females. Moreover, great regard there is had in this kind, to the mouthes of the rammes: for looke what colour the veines be under their tongue, of the ſame will the fleece be of the lambes, that is to ſay, of ſundrie colours, in caſe the veines were divers coloured. Alſo the chaunge of water and drinkes maketh them to alter their hew. In ſumme, two principall kinds there be of ſheepe, that is to ſay, the one reared within houſe, and the other abroad in the field: the firſt is the tenderer, but the other more pleaſant meat and delicate in taſt; for thoſe within-houſe feed upon briers and brambles. The clothes and coverings made of the Arabicke wooll, are chiefe of all.

Chap. xlviii.

Divers kinds of wooll and clothes.

THe beſt wooll of all other, is that of Apulia: then, that which in Italie is named the Greeke ſheepes wooll, but in other countries is named Italian. In the third ranke, the Mileſian ſheepe and their wooll, carrie the prize. The wooll of Apulia is of a ſhort ſtaple, and ſpecially in requeſt for cloakes and mantles, and nothing elſe. About Tarentum and Canuſium, the richeſt of this kind are found: as alſo at Laodicea in Aſia. As for whiteneſſe, there is none better than that which groweth along the Po, namely, about Piemount and Lombardie: and yet never to this day, a pound of it hath exceeded the price of an hundred ſeſterces. In all places they uſe not to ſheare ſheepe: for the manner of plucking their fells continueth ſtill in ſome countries. Sundrie ſorts of colours there be in wooll, and ſo many, that we are not able to give ſeverall names ſo much as to thoſe that wee call Native, *i.* growing upon the ſheepes backe. For blacke fleeces, Spaine is chiefe; Pollentia for white; and grey, the tract of Piemont neere to the Alpes: Aſia for red hath no fellow, and ſuch kind of wools are called Erythrææ. In Bœotia likewiſe, that is to ſay, in the kingdome of Granade and Andaluſia, the ſame colour is to be found. Neere to Canuſia, the ſheepe be deepe yellow or tawnie: and about Tarentum, they are of a browne and duskiſh colour. Generally, all kind of woolls newly ſhorne or plucked, unwaſht and greaſie ſtill, be good and medicinable. About Iſtria and Liburnia, the ſheepes fleece reſembleth haire rather than wooll, nothing at all good for to make frized clothes with a high nap: but ſerveth onely for the artizan or workman in Portugall, whoſe artificiall weaving in net or ſcutcheon worke with ſquares, commendeth this wooll. The like wooll is common about Piſſenæ in the province Narbonenſis, *i.* Languedoc in Fraunce: and ſuch is found in Ægypt: the cloth made thereof, after it is worne bare, is then died, and ſerveth new againe, and will weare ſtill and laſt a mans life. The courſe rough wooll with the round great haire, hath been of auncient time highly commended and accounted of in tapeſtrie worke: for even *Homer* himſelfe witneſſeth, that they of the old world uſed the ſame much, and tooke great delight therein. But this tapeſtrie is ſet out with colours in Fraunce, after one ſort, and among the Parthians after another. Moreover, wool of it ſelfe driven togither into a felt without ſpinning or weaving, ſerveth to make garments with: and if vinegre be uſed in the working therof, ſuch felts are of good proofe to bere off the edge and point of the ſword; yea and more than that, they will checke the force of the fire. And the laſt cleanſing and refuſe thereof (when it is taken out of the coppers and leads of thoſe that have the fulling and dreſſing thereof) ſerveth for flock-worke and to ſtuffe mattreſſes: an invention (as I ſuppoſe) which came firſt out of Fraunce: for ſurely theſe flockes and quilted mattreſſes, are at this day diſtinguiſhed and knowne one from another by French names. But I am not able eaſily to ſet downe at what time firſt this workmanſhip began: for certein it is, that in old time men made them pallets and beds of ſtraw, or elſe lay upon bare mattes, like as now adayes ſouldiers in the campe make ſhift with hairie rugges. As for our mantles, friezed deep both without and within, they were invented and came to be uſed firſt, no longer ſince than in my fathers dayes: as alſo theſe hairie counterpoints and carpets. For the ſtudded caſſockes that Senatours and noble men of Rome doe weare, begin but now for to be woven after the manner of deepe frieze rugges. Wooll that is blacke, will take no other hew, nor bee dyed into any colour.

As touching the manner how to die other wools, wee will ſpeake in convenient place, namely, when we ſhall treat of the purples and ſea ſhell fiſhes, and of certain hearbes good for that purpoſe. *M. Varro* writeth, That within the temple of *Sangius*, there continued unto the time that he wrote his booke, the wooll that ladie *Tanaquil*, otherwiſe named *Caia Cæcilia*, ſpun: together with her diſtaffe and ſpindle: as alſo, within the chappell of Fortune, the very roiall robe or mantle of Eſtate, made with her owne hands after the manner of water-chamlot in wave worke, which *Servius Tullus* uſed to weare. And from hence came the faſhion & cuſtome at Rome, that when maidens were to be wedded, there attended upon them a diſtaffe, dreſſed and trimmed with kembed wooll, as alſo a ſpindle and yearne upon it. The ſaid *Tanaquil* was the firſt that made the coat or caſſocke woven right out all through, ſuch as new beginners (namely, young ſouldiours, barriſters, and freſh brides) put on under their white plaine gowns, without any guard of purple. The waved water chamelot, was from the beginning eſteemed the richeſt and braveſt wearing. And from thence came the branched damaske in broad workes. *Feneſtella* writeth, That in the latter time of *Auguſtus Cæſar* they began at Rome to uſe their gownes of cloth ſhorne, as alſo with a curled nap. As for thoſe robes which are called Crebræ and Papaveratæ, wrought thicke with floure-worke, reſembling poppies; or preſſed even and ſmooth; they be of greater antiquitie: for even in the time of *Lucilius* the Poet, *Torquatus* was noted and reprooved for wearing them. The long robes embrodered before, called Prætextæ, were deviſed firſt by the Tuſcanes. The Trabeæ were roiall robes, and I find that kings and princes onely ware them. In *Homers* time alſo they uſed garments embrodered with imagerie and floure-worke: & from thence came the triumphant robes. As for embroderie it ſelfe and needle worke, it was the Phrygians invention: and hereupon embroderers in Latine bee called *Phrygiones*. And in the ſame Aſia, king *Attalus* was the firſt that deviſed cloth of gold: and thence come ſuch clothes to be called Attalica. In Babylon they uſed much to weave their cloth of divers colours, and this was a great wearing among them, and cloths ſo wrought were called Babylonica. To weave cloth of tiſſue with twiſted threeds both in woofe and warpe, and the ſame of ſundrie colours, was the invention of Alexandria, and ſuch clothes and garments wer named Polymita. But Fraunce deviſed the ſcutchion, ſquare, or lozenge damaske-worke. *Metellus Scipio*, among otherchallenges and imputations laid againſt *Capito*, reproched and accuſed him for this, That his hangings and furniture of his dining-chamber, being Babylonian worke or cloth of Arras, were ſold for 800000 ſeſtercies: and ſuch like of late daies ſtood prince *Nero* in 400 hundred thouſand ſeſterces, *i.* 40 millions. The embrodered long robes of *Servius Tullus*, wherewith hee covered and arraied all over the Image of *Fortune*, by him dedicated, remained whole and ſound unto the end of *Seianus*. And a wonder it was, that they neither fell from the image, nor were moth-eaten in 560 yeeres. I have my ſelfe ſeene the ſheepes fleeces upon their backes whiles they be alive, died with purple, with ſcarlet in grain, and the violet liquor of the fiſh Murex: by the means of certaine barks of a foot and a halfe long dipped in theſe colours, and ſo imprinted and ſet upon their fleeces: as if riotous wantonnes and ſuperfluitie ſhould force Natures worke, and make wooll to grow of that colour. As for the ſheepe it ſelfe, ſhe is knowne to be kindly enough by theſe markes, If ſhe be ſhort legged, and well woolled under the bellie; for ſuch as were naked there and pilled, they condemned and held for naught, and thoſe they called Apicæ. In Syria, ſheepe have tailes a cubit long, and they beare moſt wooll there. To lib lambs before they be five moneths old, it is thought to be with the ſooneſt, and daungerous.

Chap. xlix.

Of a beaſt called Muſmon.

THere is in Spaine, but eſpecially in the Iſle Corſica, a kind of Muſmones, not altogether unlike to ſheepe, having a ſhag more like the haire of goats, than a fleece with ſheepes wooll. That kind which is engendred betweene them and ſheepe, they called in old time Vmbri. This beaſt hath a moſt tender head, and therefore in his paſture is to be forced to feed with his taile to the ſunne. Of all living creatures, thoſe that beare wooll are moſt fooliſh: for take but one of them by the horne and lead him any whither, all the reſt will follow, though otherwiſe they were affraid to go that way. The longeſt that they live in thoſe parts, is 9 yeers; howſoever in Æthiopia they come to 13. In which countrey, goates alſo live 11 yeeres, whereas in

other

other countries of the world, for the moſt part, they paſſe not eight. And both ſorts, as well the one as the other, be ſped within foure leapings.

Chap. I.

Of Goats, and their breeding.

GOats bring forth foure kids otherwhiles, but that is very ſeldome. They goe with young five moneths as ewes do. Shee goats waxe barren with fatneſſe. When they be come once to be three yeers old, they are not ſo good to breed: ne yet when they are elder, and namely, being paſt foure yeeres of age. They begin at the ſeventh moneth, even whiles they ſucke their dammes. And as well the bucke as the Doe are held the better for breed, if they be nott, and have no hornes. The firſt time that the ſhee goats are leaped, they ſtand not to it: the ſecond leaping ſpeedeth better, and ſo forward. They chuſe willingly to take the bucke in the moneth of November, that they might bring kids in March following, when all ſhrubs put forth and begin to ſprout and bud, for them to brouze. And this is ſometime when they be a yeere old, but they never faile at two yeeres: yea and when they be full three, they are not utterly decayed and done, but are good ſtill: for they beare 8 yeeres. Subject they be in cold weather, to caſt their young and yeane untimely. The Doe, when ſhe perceiveth her eies dimme and over-caſt either with pin and web or catarract, pricketh them with the ſharpe point of ſome bulruſh, and ſo letteth them blood: but the bucke goeth to the brier and doth the like. *Mutianus* reporteth, that he had occaſion upon a time to marke the wit of this creature: It happened, that upon a narrow thin planke that lay for a bridge, that one goat met another comming both from divers parts: now by reaſon that the place was ſo narrow that they could not paſſe by, nor turne about, ne yet retire backwards blindly, conſidering how long the planke was and ſo ſlender withall; moreover, the water that ran underneath ran with a ſwift ſtreame, and threatned preſent death if they failed and went beſides: *Mutianus* (I ſay) affirmeth, that he ſaw one of them to lye flat down, and the other to goe over his backe. As for the male goats, they are held for the beſt which are moſt camoiſe or ſnout noſed, have long eares, and the ſame ſlit in, with great ſtore of ſhag haire about their ſhoulders. But the marke to know the kindeſt females is this, they have two lappets, locks, or plaits as it were of haire, hanging downe along their bodie on either ſide from their necke. They have not all of them horns, but ſome are nott; but in thoſe which are horned, a man may know their age by the number of the knots therein more or leſſe: and in very truth, the nott ſhee goats are more free of milke. *Archelaus* writeth, that they take their breath at the eares, and not at the noſtrils: alſo that they be never cleere of the ague. And this haply is the cauſe, that they are hotter mouthed, and have a ſtronger breath than ſheepe, and more egre in their rut. Men ſay moreover, that they ſee by night as wel as by day: and therfore they that when evening is come, ſee nothing at all, recover their perfect ſight again by eating ordinarily the liver of goats. In Cilicia and about the Syrtes, the people clad themſelves with goats haire, for there they ſhere them as ſheepe. Furthermore it is ſaid, that goats toward the ſun-ſetting, cannot in their paſture ſee directly one another, but by turning taile to taile: as for other houres of the day, they keepe head to head, and raunge together with the reſt of their fellowes. They have all of them a tuft of haire like a beard hanging under their chin, which they call Aruncus. If a man take one of them by this beard and draw it foorth of the flocke, all the reſt will ſtand ſtill gazing thereat, as if they were aſtonied: and ſo will they doe if any one of them chaunce to bite of a certaine hearb. Their teeth kill trees. As for an olive tree, if they doe but licke it, they ſpoile it for ever bearing after: and for this cauſe they be not killed in ſacrifice to *Minerva*.

Chap. II.

Of Swine, and their natures.

SWine goe a brimming from the time that the Weſterne wind Favoninus beginneth to blow, untill the ſpring Æquinoctiall: and they take the bore when they be eight moneths old: yea and in ſome places at the fourth moneth of their age, and continue breeding unto the ſeventh yeere. They farrow commonly twice a yeere: they be with pigge foure moneths. One ſow may bring at one farrow twentie pigges, but reare ſo many ſhe cannot. *Nigidius* ſaith, that

thoſe pigs which are farrowed ten daies under or ten daies over the ſhorteſt day of the yeer, when the ſun entreth into Capricorn, have teeth immediatly. They ſtand lightly to the firſt brimming, but by reaſon that they are ſubject to caſt their pigges, they had need to bee brimmed a ſecond time. Howbeit the beſt way to prevent that they do not ſlip their young, is to keep the bore from them at their firſt grunting and ſeeking after him, nor to let them be brimmed before their ears hang downe. Bores are not good to brim ſwine after they be three yeers old. Sowes when they be wearie for age that they cannot ſtand, take the bore lying along. That a ſow ſhould eat her owne pigs, it is no prodigious wonder. A pig is pure & good for ſacrifice, five daies after it is farrowed; a lambe, when it hath been yeaned 8 daies; and a calfe, being 30 daies old. But *Cornucanus* ſaith, That all beaſts for ſacrifice which chew cud, are not pure and right for that purpoſe, untill they have teeth. Swine having loſt one eye, are not thought to live long after; otherwiſe they may continue untill they be fifteen yeers old, yea and ſome to twentie. But they grow to be wood and raging otherwhiles: and beſides are ſubject to many maladies more, and moſt of all to the ſquinancie, and wen or ſwelling of the kernels in the necke. Will ye know that a ſwine is ſicke or unſound, pluck a briſtle from the back and it will be bloodie at the root: alſo he will carrie his neck atone ſide as he goeth. A ſow, if ſhee be over-fat, ſoone wanteth milke; and at her firſt farrow bringeth feweſt pigs. All the kind of them loveth to wallow in dirt and mire. They wrinkle their taile; wherein this alſo is obſerved, That they be more likely to appeaſe the gods in ſacrifice, that rather writh & turn their tailes to the right hand, than the left. Swine will be fat and well larded in ſixtie daies; and the rather, if before you begin to franke them up, they be kept altogither from meat three daies. Of all other beaſts, they are moſt brutiſh; inſomuch as there goeth a pleaſant byword of them, and fitteth them well, *That their life is given them in ſtead of ſalt*. This is known for a truth, that when certaine theeves had ſtolne and driven away a companie of them, the ſwineheard having followed them to the water ſide (for by that time were the theeves embarged with them) cried aloud unto the ſwine, as his manner was: whereupon they knowing his voice, leaned all to one ſide of the veſſell, turned it over, and ſunke it, tooke the water, and ſo ſwam againe to land unto their keeper. Moreover, the hogges that uſe to lead and goe before the heard, are ſo well trained, that they will of themſelves go to the ſwine-market place within the citie, and from thence home againe to their maſters, without any guide to conduct them. The wild bores in this kind, have the wit to cover their tracks with mire, and for the nones to runne over mariſh ground where the prints of their footing will not be ſeene; yea and to be more light in running, to void their urine firſt. Sowes alſo are ſplaied as well as camels, but two daies before, they be kept from meat: then hang they them by the forelegs for to make inciſion into their matrice, and to take forth their ſtones: and by this means they will ſooner grow to be fat. There is an Art alſo in cookerie, to make the liver of a ſow, as alſo of a gooſe, more daintie (and it was the deviſe of *M. Apicius*) namely, to feed them with drie figges, and when they have eaten till they bee full, preſently to give them mead or honyed wine to drinke, untill they die with beeing overcharged. There is not the fleſh of any other living creature, that yeeldeth more ſtore of diſhes to the maintenance of gluttonie, than this; for fiftie ſundrie ſorts of taſtes it affourdeth, whereas other have but one apeece. From hence came ſo many edicts and proclamations publiſhed by the Cenſors, forbidding and prohibiting to ſerve up at any feaſt or ſupper, the belly and paps of a ſow, the kernels about the necke, the brizen, the ſtones, the wombe, and the fore-part of the bores head: and yet for all that, *Publius* the Poët and maker of wanton ſongs, after that he was come to his freedome, never (by report) had ſupper without an hogges belly with the paps: who alſo to that diſh gave the name, and called it Summam. Moreover, the fleſh of wild bores came to be in great requeſt and was much ſet by: in ſuch ſort, as *Cato* the Cenſor in his invective orations, challenged men for brawne. And yet when they made three kinds of meat of the wild bore, the loine was alwaies ſerved up in the mids. The firſt Romane that brought to the table a whole bore at once, was *P. Servilius Rullus*, father of that *Rullus*, who in the time that *Cicero* was Conſull, publiſhed the law Agraria, as touching the diviſion of lands. See how little while agoe it is ſince theſe ſuperfluities began, which now are taken up ſo ordinarily everie day. And yet the thing was noted and recorded in the Annales, as ſtrange and rare; no doubt for this intent, To repreſſe theſe inordinate enormities. One ſupper then or feaſt was taxed and reprooved therein at the beginning: but now, two and three bores at a time are ſerved up whole and eaten together.

CHAP.

A

Chap. lii.

Of Parkes for wild beaſts.

THe firſt man of the long robe that deviſed parkes as well for theſe bores as other Deere and ſavage beaſts, was *Fulvius Lippinus*, who in the territorie of *Tarquinij*, began to keep and feed wild beaſts for his game. And long it was not but others followed his ſteps, namely, *L. Lucullus* and *Q. Hortenſius*. Sowes of the wild kind bring forth pigges but once a yeere: and the bores in briming time are exceeding fierce and fell: then they fight one with another: they harden their ſides rubbing them againſt the bodies of trees, and all to wallow themſelves in the mire, and coat their backs with durt. But they are not ſo raging then, but the ſowes in their farrowing are much worſe, and lightly it is ſo in all other kind of beaſts. Wild bores are not meet for generation before they be a yeere old. The wild bores of India have two bowing fangs or tuskes of a cubit length, growing out of their mouth, and as many out of their foreheads like calves hornes. The briſtly haire of the wild ſort, is like to braſſe: but of others, blacke. In Arabia ſwine will not live.

B

Chap. liii.

Of beaſts halfe ſavage.

C THere is no creature engendreth ſo ſoone with wild of the kind, as doth the ſwine: and in good ſooth ſuch hogges in old time they called Hybrides, as a man would ſay, halfe wild: inſomuch as this tearme by a tranſlation, hath been attributed to mankind. For ſo was *C. Antonius*, colleague with *Cicero* in the Conſulſhip, nicknamed. And not in ſwine onely, but alſo in all other living creatures, looke where there be any tame and domeſticall, you may find alſo wild and ſavage of the ſame kind; ſeeing that even of wild men there be ſo many ſorts in divers places, as we have before ſaid. As for the goats kind, how many and how ſundrie reſemblances are to be found in them of other beaſts? For among them you ſhall have the roe bucke, the ſhamois, the wild goat called the Eveck, wonderfull ſwift, albeit his head be loden with huge hornes like to ſword ſcabberds: by theſe they hang and poiſe themſelves from rockes, namely, when they mind to leape from one to another, for by ſwinging too and fro they skip and jump the more nimbly, and fetch a jerke out to what place they liſt, as it were forth of an engine. Of this kind, be the Oryges, the onely beaſts (as ſome thinke) of all others, that are ſaid to have their haire growing contrariwiſe and turning toward the head. To theſe belong the Does, and a kind of fallow Deere called Pygargi, as alſo thoſe that are named Strepſicerotes, and many other not farre unlike. As for the former ſort, they come out of the Alpes: theſe laſt rehearſed, are ſent from other parts beyond-ſea.

D

Chap. liiii.

Of Apes and Monkeys.

E ALl the kind of theſe Apes approach neereſt of all beaſts, to the reſemblance of a mans ſhape: but they differ one from another in the taile. Marveilous craftie and ſubtle they be to beguile themſelves: for by report, as they ſee hunters doe before them, they will imitate them in every point, even to beſmeare themſelves with glew and birdlime, and ſhoo their feet within grins and ſnares, and by that meanes are caught. *Mutianus* ſaith, that he hath ſeene Apes play at cheſſe, and tables; and that at firſt ſight they could know nuts made of waxe from others. He affirmeth moreover, that when the moone is in the waine, the monkeys and marmoſets (which in this kind have tailes) be ſad and heavie, but the new moone they adore and joy at, which they teſtifie by hopping and dauncing. As for the eclipſe of ſunne or moone, all other four-footed beaſts alſo doe greatly dread and feare. The ſhee Apes of all ſorts are wonderous fond of their little ones: and ſuch as are made tame within-houſe, will carrie them in their armes all about ſo ſoone as they have brought them into the world, keepe a ſhewing of them to every bodie, and they take pleaſure to have them dandled by others, as if thereby they tooke knowledge that folke joyed for their ſafe deliverance: but ſuch a culling and hugging of them

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they keepe, that in the end with very claſping and clipping they kill them many times. Apes that be headed and long ſnouted like dogs, and thereupon called Cynocephali, are of all other moſt curſt, ſhrewd, & unhappie: like as the Marmozets and Monkies called Sphinges & Satyri, are the gentleſt & moſt familiar. As for thoſe which they call Callitriches, they be clean of another form and ſhape all over in a manner. They have a beard on their viſage, and the fore-part of their taile ſpreadeth broad. But this creature is ſaid to live in no other climate but in Æthyopia where it breedeth.

Chap. lv.

Of Hares and Connies.

OF Hares alſo there be many ſorts. Vpon the Alpes and ſuch high mountaines, they bee of colour white, ſo long as the ſnow lieth; and it is verily thought, that all Winter long they live with eating of ſnow: for ſurely, when it is thawed and melted, all the yeare after they be browne and reddiſh as before: and a creature it is otherwiſe bred in extreame and intollerable cold. Of the Hares kind are they alſo, which in Spaine they call Connies, which are exceeding fruitfull, and of wonderfull encreaſe: in ſuch ſort, that having devoured all the corne in the field before harveſt in the Baleare Iſlands, they brought thereby a famine upon the people. There is a moſt daintie diſh ſerved up at the table, made of Leverets or Rabbets, either cut out of the dams bellies, or taken from them when they be ſuckers, without cleanſing them at all of the garbage; and ſuch the Latines call Laurices. It is knowne for certaine, the Iſlanders of Majoricke and Minoricke made meanes to the Emperour *Auguſtus Cæſar* for a power of ſouldiours to deſtroy the infinite increaſe of Connies among them. Ferrets are in great account for chaſing and hunting of theſe Connies. The manner is to put them into their earths, which within the ground have many waies and holes like mines, and thereupon theſe creatures are called *Cuniculi*: and when they are within, they ſo courſe the poore Connies from out of their earth, that they are ſoon taken above ground at the mouth of their holes. *Archelaus* writeth, That looke how many receptacles and waies of paſſage, the Hare hath for his dung and excrements, ſo many yeares old he is juſt. And verily, ſome have more than others. The ſame writer is of opinion, that every Hare is both male and female, and that any of them can breed without the Bucke. Certes herein Nature hath ſhewed her bountie and goodneſſe, in that ſhe hath given this creature (ſo good to eat, and ſo harmeleſſe otherwiſe) the gift of fertilitie and fruitfull wombe. The Hare, naturally expoſed to be a prey and game for all men, is the onely creature, unleſſe it be the Connie againe called Daſipus, which after it be once with young, conceiveth againe upon it: inſomuch, as at one time ſhe hath ſome Leverets ſucking of her, others in her bellie; and thoſe not of the ſame forwardneſſe, for ſome of them are covered with haire, others are naked without any downe; and there be again of them, that as yet are not ſhapen at all, but without all forme. Moreover, men have aſſaied to make cloth of Hares and Connies haire: but in the hand they are not ſo ſoft, as is the furre upon the skin or caſe: neither will they laſt, by reaſon that the haire is ſhort, and will ſoone ſhed.

Chap. lvi.

Of beaſts halfe tame.

AS for Hares, ſeldome be they made tame, and to come to hand: and yet juſtly they cannot be called ſimply wild. For many other ſuch creatures there be beſides, that neither are ſavage, ne yet tame and gentle, but of a middle nature betweene both. As namely among flying foules in the aire, the Swallow: likewiſe the Bee: and among fiſhes, the Dolphin in the ſea.

Chap. lvii.

Of Mice and Rats, Dor-mice, Reere-mice, and Bats.

IN the ranke of thoſe that be neither tame nor wild, many have ranged the Mice and Rats that haunt our houſes. A creature this is of no ſmall reckoning for preſaging ſomewhat to a ſtate, by ſome ſtrange and prodigious tokens. By gnawing the ſilver ſhields and bucklers at Lavinium, they portended and fore-ſhewed the Marſian warre. Vnto *Carbo* the lord Generall, by eating of his hoſe-garters and ſhoe-ſtrings at Cluſium, they prognoſticated his death. Many ſorts there

A there be of them in the countrey of Cyrene: ſome with a broad flat forehead, others with a ſharp pointed: and there be of them ſeene to have ſharpe prickles, like to urchins and hedgehogs. *Theophraſtus* reporteth, That theſe vermine having diſpeopled the Iſland Gyaros and driven away the inhabitants, gnawed & devoured every thing they could meet withall, even to their very yron. And ſurely it ſeemeth that it is their nature ſo to doe: for even among the Chalybes, they ſerve them ſo in eating their yron and ſteele within their very forges. Yea, and in gold mines they play the like part: and therefore when they be caught, their bellies be ript by the pioners in the mine, where they evermore find their ſtollen good againe. See what a delight this creature taketh in theeving. We read in the Chronicles, that whiles *Annibal* lay in ſiege before Caſilinum, a rat was ſold within the towne for two hundred Seſterces: the man who bought it at that price, lived; but the partie who ſold it for greedineſſe of mony, died for hunger. By the learning of the
B Soothſaiers, obſerved it is, that if there be ſtore of white ones bred, it is a good ſigne, and preſageth proſperitie. And in truth our ſtories are full of the like examples, and namely, that if rats be heard to crie or ſqueake in the time of ceremoniall taking the Auſpices and ſignes of birds, all is marred, and that buſineſſe cleane daſht. *Nigidius* ſaith, that rats lie cloſe hidden all Winter like as Dor-mice. By the edicts of the Cenſors, and principally by an act of *M. Scaurus* in his Conſulſhip, provided it was, and ſtreight order taken, that no Rats, Mice, or Dor-mice ſhould be ſerved up to the table at their great ſuppers and feaſts: like as all ſhell fiſh or foule fet out of forraine countries farre remote. Counted are Dor-mice betweene tame and wild: and verily he that firſt deviſed to keepe wild Bores in parkes, found the meanes alſo to nouriſh and feed theſe creatures
C in great tunnes, pipes, and driefats. In the experiment and triall whereof, this hath beene found and obſerved, That willingly theſe little creatures will not ſort together, unleſſe they were countreymen (as it were) and bred in one and the ſame forreſt: and if it chaunce that there bee entermingled among them any ſtrangers, namely, ſuch as had either ſome river or mountain between the places where they were bred, they kill one another with fighting. The young Dor-mice are exceeding kind and loving to their ſires that begat them: for when they bee old and feeble, full tenderly they will feed and nouriſh them. They renue their age every yeare, by ſleeping all Winter: for they lie by it cloſe, ſnug all the while, and are not to bee ſeene. But come the Summer once, they bee young and freſh againe. And thus the field Mice likewiſe take their reſt, and doe the ſame.

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Chap. lviii.

What creatures live not but in certaine places.

A Wonderfull thing it is to ſee, that Nature hath not onely brought forth divers creatures in ſundrie countries: but alſo in one region under the ſame climate, hath denied ſome of them to live in every quarter thereof. And namely in the forreſt of Mœſia within Italie, theſe Dor-mice are found but onely in one part thereof. And in Lycia the wild goats, roebucks, and does, never paſſe the mountaine that confine upon the Syrians: no more than the wild Aſſes tranſmount that hill which devideth Cappadocia from Cilicia. Within Helleſpont the Stags
E and Hinds never goe forth and enter into the marches of other countries: and thoſe that bee about Arginuſſa paſſe not the mountaine Elatus: which may be knowne by this, that all upon that hill have their eares marked and ſlit. In the Iſland Poroſelenum, the Weazels will not croſſe over the high way. And about Lebadia in Bœotia, thoſe moldwarpes or wants that are brought thither from other parts, will not abide the very ſoile, but flie from it; which neere by, in Orchomenus undermine & hollow all their corn fields: and ſuch ſtore there is of them, that I have ſeen all the hangings, carpets, counterpoints, and coverlets of chambers, made of their skins. See how men for no religion and feare of the gods, will bee kept from taking their pleaſures and making their delights of theſe creatures, otherwiſe prodigious and portending things to come. The
F ſtrange Hares that be brought into Ithaca, will not live there, but ſeeking to get away, are found dead about the very bankes of the ſea ſide. In the Iſland Ebuſus there bee no Connies at all: and yet in Spaine and the Baleare Iſlands there are ſo many, that they peſter the whole countrie. The Frogs were ever in Cyrenæ naturally mute, and would not crie: but brought there were thither out of the continent, ſuch as would crie in the water: and that whole kind ſtill remaineth vocall. In the Iſland Seriphos you ſhall not yet heare a Frog to crie: let the ſame bee carried foorth to

other places, they will keepe a singing as well as the rest. And (by report) the like happeneth in a lake of Thessalie named Sicendus. In Italie, the hardie shrewes are venomous in their biting: but passe over the Apennine once, there are no more such to be found. In what countrey soever they be, let them goe over the tract of a cart wheele, they die presently. In Olympus, a mountaine of Macedonie, there are no Wolves, ne yet in the Island Candie. And there verily are to bee found no Foxes nor Beares, and in one word, no hurtfull and noisome beast, unlesse it bee a kind of spider called Phalangium: whereof wee will speake more in due time and place. And that which is more wonderfull, in the same Island there are no Stags and Hinds, save onely in the region and quarter of the Cydoniates. No wild Bores likewise, nor the foule called the Godwit or Attagene, ne yet Vrchins. To conclude, in Affricke yee shall find no wild Bores, no Stags and Hinds, no Roe-buckes and Does, ne yet Beares.

Chap. lix.

What creatures are hurtfull to strangers.

NOw, some living creatures there be that doe no harme at all to the inhabitants of the same countries, but kill all strangers. And namely, certaine Serpents in Tirinthe, which are supposed to breed of themselves out of the very earth. Semblably, in Syria there be Snakes, and especially along the bankes of Euphrates, that will not touch the Syrians lying along asleep: nay, if a man that leaneth upon them bee stung or bitten by them, hee shall find no hurt or mischeefe thereby. But to men of all other nations whatsoever, they are most spightfully bent: them they will with great greedinesse eagerly assaile and flie upon, yea, and kill them with extreame paine and anguish. And therefore it is, that the Syrians destroy them not. Contrariwise, *Aristotle* reporteth, That in Latmos (a mountaine of Caria) the Scorpions will doe no harme to straungers, marrie the inhabitants of the same countrey they will sting to death. Now let us proceed to other living creatures besides those of the land, and discourse of their sundrie sorts and kinds.

THE NINTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

Chap. I.

The nature of water creatures.

I Have thus shewed the nature of those beasts which live upon the land, and therein have some societie and fellowship with men. And considering, that of all others besides in the world, they that flie bee the least, wee will first treat of those fish that keepe in the sea: not forgetting those also, either in running fresh rivers or in standing lakes.

Chap. II.

What the reason is why the sea should breed the greatest living creatures.

THe waters bring forth more store of living creatures, and the same greater than the land. The cause whereof is evident, even the excessive abundance of moisture. As for the foules and birds, who live hanging (as it were) and hovering in the aire, their case is otherwise. Now

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A in the ſea, being ſo wide, ſo large and open, readie to receive from heaven above the genitall ſeeds and cauſes of generation; being ſo ſoft & pliable, ſo proper & fit to yeeld nouriſhment and encreaſe; aſſiſted alſo by Nature, which is never idle, but alwaies framing one new creature or other: no marvell it is if there are found ſo many ſtrange and monſtrous things as there be. For the ſeeds and univerſall elements of the world are ſo interlaced ſundrie waies, and mingled one within another, partly by the blowing of the winds, and partly with the rolling and agation of the waves, inſomuch as it may truly bee ſaid, according to the vulgar opinion, that whatſoever is engendred and bred in any part of the world beſides, is to be found in the ſea: and many more things in it, which no where els are to be ſeene. For there ſhall yee meet with fiſhes, reſembling not onely the forme and ſhape of land creatures living, but alſo the figure and faſhion of many things without
B life: there may one ſee bunches of grapes, ſwords, and ſawes, repreſented; yea, and alſo cowcombers, which for colour, ſmell, and taſt, reſembleth thoſe growing upon the earth. And therefore we need the leſſe to wonder, if in ſo little ſhell fiſhes as are cockles, there be ſomewhat ſtanding out like horſe-heads.

Chap. iii.

Of the monſtrous fiſhes in the Indian ſea.

THe Indian ſea breedeth the moſt and the biggeſt fiſhes that are: among which, the Whales and Whirlepooles called Balænæ, take up in length as much as foure acres or arpens of
C land: likewiſe the Priſtes are two hundred cubites long: and no marvell, ſince Locuſts are there to bee found of foure cubites in length: and yeeles within the river Ganges of thirtie foot in length. But theſe monſtrous fiſhes in the ſea, are moſt to be ſeene about the middeſt of Summer, and when the daies be at the longeſt with us. For then by the meanes of whirlewinds, ſtorms, winds, and bluſtering tempeſts which come with violence downe from the mountaines and promontories, the ſeas are troubled from the very bottome, and turned upſide downe: whereupon the ſurging billowes thereof, raiſe theſe monſters out of the deepe, and roll them up to be ſeene. For in that manner ſo great a multitude of Tunnies were diſcovered and aroſe, that the whole armada of king *Alexander* the great, ſeeing them comming like to an armie of enemies in order of battell, was driven to range & make head againſt them, cloſe united together: for otherwiſe, if they
D had failed ſcattering aſunder, there had been no way to eſcape, but overturned they had ben; with ſuch a force and ſway came theſe Tunnies in a skull upon them. And verily, no voice, crie, hollaing and houting, no nor any blowes and raps affrighteth this kind of fiſh: onely at ſome cracke or crathing noiſe they be terrified: and never are they troubled and diſquieted ſo much as when they perceive ſome huge thing readie to fall upon them.

In the red ſea there lieth a great demie Iſland named Cadara, ſo farre out into the ſea, that it maketh a huge gulfe under the wind, which king *Ptolomæus* was twelve daies and twelve nights a rowing through: for as much as there is no wind at all uſeth to blow there. In this creeke ſo cloſe and quiet, there be fiſh and Whales grow to that bigneſſe, that for their very weight and unweldineſſe of their bodie, they are not able to ſtirre. The Admirals and other captaines of the fleet
E of the foreſaid *Alexander* the great, made report, That the Gedroſi, a people dwelling upon the river Arbis, uſe to make of ſuch fiſhes chawes, the dores of their houſes; alſo that they lay their bones overthwart from one ſide of the houſe to another, in ſteed of beames, joiſts, and rafters to beare up their floores and roufes: and that ſome of them were found to be fortie cubites long.

In thoſe parts there be found in the ſea certaine ſtrange beaſts like ſheepe, which goe foorth to land, feed upon the roots of plants and hearbes, and then returne againe into the ſea. Others alſo which are headed like Horſes, Aſſes, and Buls: and thoſe many times eat downe the ſtanding corne upon the ground.

Chap. iiii.

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Which be the greateſt fiſhes in any coaſt of the Ocean ſea.

THe biggeſt and moſt monſtrous creature in the Indiſh Ocean, are the Whales called Priſtis and Balæna. In the French Ocean there is diſcovered a mightie fiſh called Phyſeter, [*i.* a Whirlepoole] riſing up aloft out of the ſea in manner of a columne or pillar, higher than

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the very ſailes of the ſhips: and then he ſpouteth and caſteth forth a mightie deale of water, as it were out of a conduit; ynough to drowne and ſinke a ſhip. In the Ocean of Gades, betweene Portugall and Andaluſia, there is a monſtrous fiſh to be ſeene like a mightie great tree, ſpreading abroad with ſo mightie armes, that in regard thereof onely, it is thought verily it never entred into the ſtreights or narrow ſea there by of Gibraltar. There ſhew themſelves otherwhiles fiſhes made like two great wheeles, and therupon ſo they be called: framed diſtinctly with foure armes, repreſenting as many ſpokes: and with their eies they ſeeme to cover cloſe the naves from one ſide to the other, wherein the ſaid ſpokes are faſtened.

Chap. v.

Of Tritons, Nereides, and ſea-Elephants, and their formes.

IN the time that *Tiberius* was Emperour, there came unto him an Embaſſador from *Vlyſsipon*, ſent of purpoſe to make relation, That upon their ſea coaſt there was diſcovered within a certain hole, a certain ſea goblin, called Triton, ſounding a ſhell like a Trumpet or Cornet: & that he was in forme and ſhape like thoſe that are commonly painted for Tritons. And as for the Meremaids called Nereides, it is no fabulous tale that goeth of them: for looke how painters draw them, ſo they are indeed: only their bodie is rough and skaled all over, even in thoſe parts wherin they reſemble a woman. For ſuch a Meremaid was ſeene and beheld plainely upon the ſame coaſt neere to the ſhore: and the inhabitants dwelling neer, heard it a farre off when it was a dying, to make pitteous mone, crying and chattering very heavily. Moreover, a lieutenant or governour under *Auguſtus Cæſar* in Gaule, advertiſed him by his letters, That many of theſe Nereides or Meremaids were ſeene caſt upon the ſands, and lying dead. I am able to bring forth for mine authors divers knights of Rome, right worſhipfull perſons and of good credite, who teſtifie that in the coaſt of the Spaniſh Ocean neere unto Gades, they have ſeene a Mere-man, in every reſpect reſembling a man as perfectly in all parts of the bodie as might bee. And they report moreover, that in the night ſeaſon he would come out of the ſea abourd their ſhips: but look upon what part ſoever he ſetled, he waied the ſame downe, and if he reſted and continued there any long time, he would ſinke it cleane. In the daies of *Tiberius* the Emperour, in a certain Iſland upon the coaſt of the province of Lions, the ſea after an eb, left upon the bare ſands three hundred ſea-monſters and above, at one flote together, of a wonderfull varietie and bigneſſe, differing aſunder. And there were no fewer found upon the coaſt of the Santones. And among the reſt there were ſea-Elephants and Rams, with teeth ſtanding out; and hornes alſo, like to thoſe of the land, but that they were white like as the foreſaid teeth: over and beſides, many Mere maids. *Turanius* hath reported, That a monſter was driven and caſt upon the coaſt of Gades, betweene the two hindmoſt finnes whereof in the taile, were ſixteene cubites: it had 122 teeth, whereof the biggeſt were a ſpan or nine inches in meaſure, and the leaſt halfe a foot. *M. Scaurus* among other ſtrange and wonderfull ſights that he exhibited to the people of Rome, to doe them pleaſure in his Ædileſhip, ſhewed openly the bones of that ſea-monſter, before which ladie *Andromeda* (by report) was caſt to be devoured: which were brought to Rome from Ioppe, a towne in Iudæa: and they caried in length fortie foot: deeper were the ribs than any Indian Elephant is high, and the ridge-bone a foot and halfe thicke.

Chap. vi.

Of the Balænes and Orcæ.

THeſe monſttous Whales named Balænæ, otherwhiles come into our ſeas alſo. They ſay that in the coaſt of the Spaniſh Ocean by Gades, they are not ſeen before midwinter when the daies be ſhorteſt: for at their ſet times they lie cloſe in a certaine calme deepe and large creeke, which they chuſe to caſt their ſpawne in, and there delight above all places to breed. The Orcæ, other monſtrous fiſhes, know this full well, and deadly enemies they bee unto the foreſaid Whales. And verily, if I ſhould pourtrait them, I can reſemble them to nothing els but a mightie maſſe and lumpe of fleſh without all faſhion, armed with moſt terrible, ſharpe, and cutting teeth. Well, theſe being ware that the Whales are there, breake into this ſecret by-creeke out of the way, ſeeke them out, and if they meet either with the young ones, or the dammes that have

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A newly ſpawned, or yet great with ſpawne, they all to cut & hacke them with their trenchant teeth; yea, they run againſt them as it were a foiſt or ſhip of warre armed with ſharpe braſen pikes in the beake-head. But contrariwiſe, the Balænes or Whales aforeſaid, that cannot wind and turne aſide for defence, and much leſſe make head and reſiſt, ſo unweldie as they bee by reaſon of their owne weightie and heavie bodie, (and as then either big bellied, or elſe weakened lately with the paines of travell and calving their young ones) have no other meanes of helpe and ſuccour but to ſhoot into the deepe, and gaine ſea-roume to defend themſelves from the enemie. On the other ſide, the Orcæ labour (to cut them ſhort of their purpoſe) to lie betweene them and home in their very way, and otherwhiles kill them unawares in the ſtreights, or drive them upon the ſhelves and ſhallowes, or elſe force them againſt the very rockes, and ſo bruſe them.
B When theſe combates and fights are ſeene, the ſea ſeemeth as if it were angry with it ſelfe: for albeit no winds are up, but all calme in that creeke and gulfe, yet ye ſhall have waves in that place where they encounter (with the blaſts of their breath, and the blowes given by the aſſailant) ſo great, as no tempeſtuous whirlewinds whatſoever are not able to raiſe. In the haven of Oſtia likewiſe there was diſcovered one of theſe Orcæs, and the ſame aſſailed by *Claudius* the Emperour. It chaunced to come as he was making the ſaid harbour or pere, drawne and trained thither with the ſweetneſſe of certaine beaſts hides that were brought out of Gaule, and were caſt away and periſhed by the way. Of them for certaine daies ſhee had fed, and ſtill following them, with the weight of her heavie bodie had made a furrow and channel (as it were) with her bellie in the bottome among the ſhelves: and by reaſon of the flowing of the ſea ſhee was ſo inveſted and com-
C paſſed in with the ſands, that by no means poſſible ſhe could turne about: but ſtill while ſhe goeth after theſe hides whereof ſhe fed, ſhe was by the billows of the ſea caſt aflote upon the ſhore, ſo as her backe was to be ſeene a great deale above the water, much like to the bottome or keele of a ſhip turned upſide downe. Then the Emperour commaunded to draw great nets and cords with many folds along the mouth of the haven on every ſide behind the fiſh, himſelfe accompanied with certaine Pretorian cohorts, for to ſhew a pleaſant ſight unto the people of Rome, came againſt this monſtrous fiſh, and out of many holes and barkes the ſouldiours launced darts and javelines thicke. And one of them I ſaw my ſelfe ſunke downe right with the abundance of water that this monſtrous fiſh ſpouted and filled it withall. The Whales called Balenæ have a certaine mouth or great hole in their forehead, and therefore as they ſwim aflote aloft on the water, they
D ſend up on high (as it were) with a mightie ſtrong breath a great quantitie of water when they liſt, like ſtormes of raine.

Chap. vii.

Whether fiſh doe breath and ſleepe, or no.

ALl writers are fully reſolved in this, That the Whales aboveſaid, as well the Balænæ as the Orcæ, and ſome few other fiſhes bred and nouriſhed in the ſea, which among other inward bowels have lights, doe breath. For otherwiſe it were not poſſible, that either they or any other beaſt, without lights or lungs ſhould blow. And they that be of this opinion, ſuppoſe likewiſe, that no fiſhes having guils, do draw in and deliver their wind againe too and fro: nor many
E other kinds beſides, although they want the foreſaid guils. Among others, I ſee that *Ariſtotle* was of that mind, and by many profound and learned reaſons perſuaded and induced many more to hold the ſame. For mine owne part, if I ſhould ſpeake frankely what I thinke, I profeſſe that I am not of their judgement. For why? Nature if ſhe be ſo diſpoſed, may give in ſteed of lights ſome other organs and inſtruments of breath: to this creature one, to that another: like as many other creatures have another kind of moiſt humor in lieu of bloud. And who would marvell, that this vitall ſpirit ſhould pierce within the waters, conſidering that hee ſeeth evidently how it riſeth againe and is delivered from thence: alſo how the aire entreth even into the earth, which is the groſſeſt and hardeſt element of al others? As we may perceive by this good argument, That ſome
F creatures, which albeit they be alwaies covered within the ground, yet live and breath nevertheleſſe, and namely, the Wants or Mold-warpes. Moreover, I have divers pregnant and effectuall reaſons inducing me to beleeve, that all water-creatures doe breath each one after their maner, as Nature hath ordained. Firſt and principally I have obſerved oftentimes by experience, That fiſhes evidently breath and pant for wind (after a ſort) in the great heat of Summer: as alſo that they

they yawne and gape when the weather is calme and the ſea ſtill. And they themſelves alſo who C
hold the contrarie, confeſſe plainly, That fiſhes doe ſleepe. And if that be true, How, I pray you, can they ſleepe if they take not their wind? Moreover, whence come thoſe bubbles which continually are breathed foorth from under the water? And what ſhall wee ſay to thoſe ſhell-fiſhes which waxe and decay in ſubſtance of bodie, according to the effect of the moones encreaſe or decreaſe? But above all, fiſhes have hearing and ſmelling, and no doubt both theſe ſenſes are perfourmed and maintained by the benefit and matter of the aire: for what is ſmell and ſent, but the verie aire, either infected with a bad, or perfumed with a good ſavour? Howbeit I leave everie man free to his owne opinion, as touching theſe points. But to returne againe to our purpoſe: this is certein, that neither the Whales called Balænæ, nor the Dolphins, have any guills: and yet doe both theſe fiſhes breath at certaine pipes and conduits, as it were reaching downe H
into their lights: from the forehead, in the Balænes; and in the Dolphins, from the backe. Furthermore, the Sea-calves or Seales, which the Latines call *Phocæ*, doe both breath and ſleepe upon the drie land. So doe the ſea Tortoiſes alſo, whereof we will write more anon.

Chap. viii.

Of Dolphins.

THe ſwifteſt of all other living creatures whatſoever, and not of ſea-fiſh only, is the Dolphin; quicker than the flying foule, ſwifter than the arrow ſhot out of a bow. And but that this fiſh is mouthed farre beneath his ſnout, and in manner toward the mids of his belly, there I
were not a fiſh could eſcape from him, ſo light and nimble he is. But Nature in great providence fore-ſeeing ſo much, hath given theſe fiſhes ſome let and hinderance, for unleſſe they turned upright much upon their backe, catch they can no other fiſh: and even therein appeareth moſt of all their wonderfull ſwiftneſſe and agilitie. For when the Dolphins are driven for verie hunger to courſe and purſue other fiſhes downe into the bottome of the ſea, and thereby are forced a long while to hold their breath, for to take their wind againe, they launce themſelves aloft from under the water as if they were ſhot out of a bow; and with ſuch a force they ſpring up againe, that many times they mount over the verie ſailes and maſtes of ſhips. This is to be noted in them, that for the moſt part they ſort themſelves by couples like man & wife. They are with yong nine moneths, and in the tenth bring forth their little ones, and lightly in ſummer time; and otherwhiles K
they have two little dolphins at once. They ſuckle them at their teats, like as the Whales or the Balænes doe: yea and ſo long as their little ones are ſo yong that they be feeble, they carry them too and fro about them: nay when they are growne to be good bigge ones, yet they beare them companie ſtill a long time, ſo kind and loving be they to their young. Young Dolphins come very ſpeedily to their growth, for in ten yeeres they are thought to have their full bigneſſe: but they live thirtie yeeres, as hath been knowne by the experience and triall in many of them, that had their taile cut for a marke when they were young, and let go again. They lie cloſe everie yeere for the ſpace of thirtie daies, about the riſing of the Dog-ſtarre; but it is ſtraunge how they be hidden, for no man knoweth how: and in verie deed a wonder it were, if they could not breath under the water. Their manner is, to breake forth of the ſea and come aland, and why they ſhould L
ſo doe, it is not known: for preſently aſſoon as they touch the dry ground, they die: and ſo much the ſooner, for that their pipe or conduit above-ſaid, incontinently cloſeth up and is ſtopped. Their tongue ſtirreth within their heads, contrarie to the nature of all other creatures living in the waters: the ſame is ſhort and broad faſhioned like unto that of a ſwine. Their voice reſembleth the pittifull groning of a man: they are ſaddle-backed, and their ſnout is camoiſe and flat, turning up. And this is the cauſe that all of them (after a wonderfull ſort) know the name *Simo*, and take great pleaſure that men ſhould ſo call them. The Dolphin is a creature that carrieth a loving affection not only unto man, but alſo to muſicke: delighted he is with harmonie in ſong, but eſpecially with the ſound of the water inſtrument, or ſuch kind of pipes. Of a man he is nothing affraid, neither avoideth from him as a ſtranger; but of himſelfe meeteth their ſhips, plaieth and diſporteth himſelfe, and fetcheth a thouſand friskes and gambols before them. Hee will M
ſwimme along by the marriners, as it were for a wager, who ſhould make way moſt ſpeedily, and alwaies out-goeth them, ſaile they with never ſo good a fore-wind.

In the daies of *Auguſtus Cæſar* the Emperour, there was a Dolphin entred the gulfe or poole

Lucrinus,

A Lucrinus, which loved wonderous well a certain boy, a poore mans ſonne: who uſing to go every day to ſchoole from Baianum to Puteoli, was woont alſo about noone tide to ſtay at the water ſide, and to call unto the Dolphin, *Simo*, *Simo*, and many times would give him fragments of bread, which of purpoſe hee ever brought with him, and by this meane allured the Dolphin to
ℨ come ordinarily unto him at his call. [I would make ſcruple and baſh to inſert this tale in my ſtorie and to tell it out, but that *Mecænas Fabianus*, *Flavius Alſius*, and many others have ſet it downe for a truth in their Chronicles.] Well, in proceſſe of time, at what houre ſoever of the day, this boy lured for him and called *Simo*, were the Dolphin never ſo cloſe hidden in any ſecret and blind corner, out he would and come abroad, yea and skud amaine to this lad: and taking bread and other victuals at his hand, would gently offer him his backe to mount upon, and then
B downe went the ſharpe pointed prickes of his finnes, which he would put up as it were within a ſheath for fear of hurting the boy. Thus when he had him once on his back, he would carrie him over the broad arme of the ſea as farre as Puteoli to ſchoole; and in like manner convey him backe againe home: and thus he continued for many yeeres together, ſo long as the child lived. But when the boy was falne ſicke and dead, yet the Dolphin gave not over his haunt, but uſually came to the woonted place, & miſſing the lad, ſeemed to be heavie and mourne again, untillf or verie griefe and ſorrow (as it is doubtles to be preſumed) he alſo was found dead upon the ſhore.

Another Dolphin there was not many yeeres ſince upon the coaſt of Affricke, neere to the cittie Hippo, called alſo Diarrhytus, which in like manner would take meat at a mans hand, ſuffer himſelfe gently to be handled, play with them that ſwom and bathed in the ſea, and carrie on
C his backe whoſoever would get upon it. Now it fell out ſo, that *Flavianus* the Proconſull or lieutenant Generall in Affricke under the Romanes, perfumed and beſmeared this Dolphin upon a time with a ſweet ointment: but the fiſh (as it ſhould ſeem) ſmelling this new and ſtrange ſmell, fell to be drowſie and ſleepie, and hulled too and fro with the waves, as if it had beene halfe dead: and as though ſome injurie had been offered unto him, went his way and kept alouſe, and would not converſe any more for certain moneths with men, as before-time. Howbeit in the end hee came again to Hippo, to the great wonder and aſtoniſhment of all that ſaw him. But the wrongs that ſome great perſons and lords did unto the cittizens of Hippo, ſuch I meane as uſed to come for to ſee this ſight: and namely, the hard meaſure offered to thoſe townſmen, who to their great coſt gave them entertainment, cauſed the men of Hippo to kill the poore Dolphin.

D The like is reported in the citie Iaſſos, long before this time: for there was ſeene a Dolphin many a day to affect a certaine boy, ſo as he would come unto him whereſoever he chaunced to eſpy him. But whiles at one time above the reſt he followed egerly after the lad going toward the towne, hee ſhot himſelfe upon the drie ſands before he was aware, and died forthwith. In regard hereof, *Alexander* the Great ordained that the ſaid young boy ſhould afterward be the chiefe prieſt and ſacrificer to Neptune in Babylon: collecting by the ſingular fancie that this Dolphin caſt unto him, That it was a great ſigne of the ſpeciall love of that god of the ſea unto him, and that he would be good and gracious to men for his ſake.

Egeſidemus writeth, that in the ſame Iaſſus there was another boy named *Hermias*, who having uſed likewiſe to ride upon a Dolphin over the ſea, chaunced at the laſt in a ſodaine ſtorme
E to be over-whelmed with waves as hee ſate upon his backe, and ſo died, and was brought backe dead by the Dolphin: who confeſſing as it were that hee was the cauſe of his death, would never retire againe into the ſea, but launced himſelfe upon the ſands, and there died on the drie land.

The ſemblable happened at Naupactum, by the report of *Theophraſtus*. But there is no end of examples in this kind: for the Amphilochians and Tarentines teſtifie as much, as touching dolphins that have ben enamoured of little boies: which induceth me the rather to beleeve the tale that goeth of *Arion*. This *Arion* being a notable muſitian and plaier of the harpe, chaunced to fall into the hands of certain mariners in the ſhip wherein he was, who ſuppoſing that he had good ſtore of money about him, which he had gotten with his inſtrument, were in hand to kill him and caſt him over-bourd for the ſaid money, and ſo to intercept all his gaines: he, ſeeing
F himſelfe at their devotion and mercie, beſought them in the beſt mannet that he could deviſe, to ſuffer him yet before he died, to play one fit of mirth with his harpe; which they graunted: (at his muſicke and ſound of harpe, a number of dolphins came flocking about him:) which done,
ℨ they turned him over ſhip-bourd into the ſea; where one of the dolphins tooke him upon his backe, and carried him ſafe to the bay of Tænarus.

To

To conclude and knit up this matter: In Languedoc within the province of Narbon, and in the territorie of Næmausium, there is a standing poole or dead water called Laterra, wherein men and Dolphins together, use to fish: for at one certain time of the yeere, an infinite number of fishes called Mullets, taking the vantage of the tide when the water doth ebbe, at certain narrow weares and passages with great force breake foorth of the said poole into the sea: and by reason of that violence, no nets can bee set and pitched against them strong enough to abide and beare their huge weight, and the streame of the water together, if so be men were not cunning and craftie to wait and espie their time to lay for them, and to entrap them. In like manner the Mullets for their part, immediatly make speed to recover the deepe, which they doe very soone by reason that the channell is neare at hand: and their onely haste is for this, to escape and passe that narrow place which affourdeth opportunitie to the fishers to stretch out and spread their nets. The fisher-men being ware thereof, and all the people besides (for the multitude knowing when fishing time is come, run thither, and the rather for to see the pleasant sport) crie as lowd as ever they can to the Dolphins for aid, and call *Simo, Simo*, to help to make an end of this their game and pastime of fishing. The Dolphins soon get the eare of their crie, and know what they would have; and the better, if the North-winds blow and carrie the sound unto them: for if it be a Southerne wind, it is later ere the voice bee heard, because it is against them. Howbeit, be the wind in what corner soever, the Dolphins resort thither flock-meale, sooner than a man would thinke, for to assist them in their fishing. And a wondrous pleasant sight it is to behold the squadrons as it were of those Dolphins, how quickly they take their places and be arraunged in battaile array even against the verie mouth of the said poole, where the Mullets use to shoot into the sea: to see (I say) how from the sea, they oppose themselves and fight against them; & drive the Mullets (once affrighted and skared) from the deep, upon the shelves. Then come the fishers and beset them with net and toile, which they beare up and fortifie with strong forkes: howbeit for all that, the Mullets are so quicke and nimble, that a number of them whip over, get away, and escape the nets. But the Dolphins then are readie to receive them: who contenting themselves for the present to kill only, make foule worke and havocke among them; and put off the time of preying and feeding upon, untill they have ended the battaile and atchieved the victorie. And now the skirmish is hote, for the Dolphins perceiving also the men at worke, are the more egre and courageous in fight, taking pleasure to bee enclosed within the nets, and so most valiantly charge upon the Mullets: but for feare least the same should give occasion unto the enemies and provoke them to retire and flie backe; betweene the boats, the nets, and the men there swimming, they glide by so gently and easily, that it cannot be seene where they gat out. And albeit they take great delight in leaping, and have the cast of it, yet none assaieth to get forth, but where the nets lie under them: but no sooner are they out, but presently a man shall see brave pastime betweene them, as they scuffle and skirmish as it were under the rampier. And so the conflict being ended and all the fishing sport done, the Dolphins fall to spoile and eat those which they killed in the first shocke and encounter. But after this service perfourmed, the Dolphins retire not presently into the deepe againe, from whence they were called, but stay untill the morrow, as if they knew verie well that they had so carried themselves, as that they deserved a better reward than one daies refection and victuals: and therefore contented they are not and satisfied, unlesse to their fish they have some sops and crummes of bread given them soaked in wine, and that their bellies full. *Mutianus* maketh mention of the semblable manner of fishing, in the gulfe of Iassos: but herein is the difference, for that the Dolphins come of their owne accord without calling, take their part of the bootie at the fishers hands: and every boat hath a Dolphin attending upon it as a companion, although it be in the night season and at torch light.

Over and besides, the Dolphins have a kind of common-wealth and publick societie among themselves: for it chaunced upon a time, that a king of Caria had taken a Dolphin, and kept him fast as a prisoner within the harbor: whereupon a mightie multitude of other Dolphins resorted thither, and by certaine signs of sorrow and mourning that they made, evident to be perceived and understood, seemed to crave pardon and mercie for the prisoner: and never gave over untill the king had given commaundement that he should be enlarged and let go. Also the little ones are evermore accompanied with some one of the bigger sort, as a guide to guard and keep him. To conclude, they have been seen to carrie one of their fellowes when he is dead, into some place of securitie, that he should not be devoured and torne of other sea-monsters.

CHAP.

Chap. IX.

Of Porpuiſſes.

THe Porpuiſſes, which the Latines call *Turſiones*, are made like the Dolphins: howbeit they differ, in that they have a more ſad and heavie countenance: for they are nothing ſo gamеſome, playfull, and wanton, as be the Dolphins: but eſpecially they are ſnouted like dogges when they ſnarle, grin, and are readie to doe a ſhrewd turne.

Chap. X.

Of ſea Tortoiſes, and how they are taken.

THere be found Tortoiſes in the Indian ſea ſo great, that one only ſhell of them is ſufficient for the rouſe of a dwelling houſe. And among the Iſlands principally in the red ſea, they uſe Tortoiſe ſhells ordinarily for boats and wherries upon the water.

Many waies the fiſher-men have to catch them; but eſpecially in this manner: They uſe in the mornings when the weather is calme and ſtill, to flote aloft upon the water, with their backs to be ſeene all over: and then they take ſuch pleaſure in breathing freely and at libertie, that they forget themſelves altogither: inſomuch as their ſhell in this time is ſo hardened and baked with the ſunne, that when they would they cannot dive and ſinke under the water againe, but are forced againſt their wills to flote above, and by that meanes are expoſed as a prey unto the fiſhermen. Some ſay, that they goe forth in the night to land for to feed, where, with eating greedily, they be wearie; ſo that in the morning, when they are returned againe, they fall ſoone aſleepe above the water, and keepe ſuch a ſnorting and routing in their ſleepe, that they bewray where they be, and ſo are eaſily taken: and yet there muſt be three men about every one of them: and when they have ſwom unto the Tortoiſe, two of them turne him upon his backe, the third caſts a cord or halter about him, as he lyeth with his belly upward, and then is he haled by many more togither, to the land. In the Phœnician ſea, they make no great adoe to take them; for why, at a certaine time of the yeere they reſort of themſelves by great multitudes in ſculls up into the river Eleutherius.

The Tortoiſe hath no teeth, but the ſides and brimmes of his neb or becke, are ſharpe and keene: whereof the upper part or chaw ſhutteth cloſe upon the nether, like to the lid of a boxe. In the ſea they live of muſcles, cockles, and ſuch ſmall ſhell-fiſhes, for their mouthes are ſo hard that they be able to cruſh and breake ſtones therewith. Their manner is to go aland, where among the graſſe they lay egges as bigge as birds egs, to the number commonly of an hundred. When they have ſo done, they hide them within the earth in ſome little hole or gutter, ſure enough from any place where the water commeth, they cover them with mould, beat it hard downe with their breaſt, and ſo pat it ſmooth, and in the night time ſit upon them: they couvie a whole yeere before they hatch. Some ſay, that the looking wiſtly upon their egges with their eyes ſerveth in ſtead of ſitting. The female flieth from the male, and will not abide to engender, untill ſuch time as he pricke her behind and ſticke ſomewhat in her taile for running away from him ſo faſt.

The Troglodites have among them certaine Tortoiſes, with broad hornes like the pegges in a Lute or Harpe, and the ſame will wagge and ſtirre ſo, as in ſwimming they helpe themſelves therewith, and are guided and directed by them. And this kind of Tortoiſe is called Celtium: of exceeding great bigneſſe, but rare to bee found and hard to come by: for their exceeding ſharpe prickes like rockes, among which they keepe, fright the Chelonophagi (who delight to feed upon them) that they dare not ſearch after them. And the Troglodites, unto whome theſe Tortoiſes uſe to ſwimme, adore them as holy and ſacred things.

There be alſo land Tortoiſes (called thereupon in the workes that are made of them in pannell wiſe, Cherſinæ) found in the deſerts and wilderneſſe of Affrick, and principally in that part which is drie and full of ſands: and they are thought to live upon nothing els but the moiſt dew. And in very truth, no other living creature there breedeth beſides them.

Chap. xi.

❧ *Who first devised the cleaving of Tortoise shells into thin plates like pannell.*

THe first man that invented the cutting of Tortoise shells into thin plates, therwith to seele beds, tables, cupbourds, and presses, was *Carbilius Pollio*, a man verie ingenious and inventive of such toies, serving to riot and superfluous expense.

Chap. xii.

❧ *A division of water beasts into their severall kinds.*

THe creatures that breed and live in the water, bee not all covered and clad alike: for some have a skin over them, and the same hairie, as the Seales and Water-horses. Others have but a bare skin, as the Dolphins. There be againe that have a shell like a barke, as the Tortoises: and in others, the shell is as hard as the flint, and such be the oysters, muscles, cockles, and winkles. Some be covered with crusts or hard pills, as the locusts: others have besides them, sharpe prickes, as the Vrchins. Some be skaled, as fishes: others are rough-coated, as the Soles, and with their skins folke use to polish and smooth wood and yvorie. Some have a tender and soft skin, as Lampreys: others none at all, as the Pourcuttle or Pourcontrell.

Chap. xiii.

❧ *Of the Sea-calfe, or Seale.*

THe great Whales, called Pristis and Balæna, bring forth their young alive, and perfect living creatures: likewise all those that are covered with haire, as the Sea-calfe or Seale. She calveth on the drie land as other cattaile: and whensoever she calveth, she gleaneth afterwards as kine doe. The female is tied and lined to the male, like as bitches to dogges: shee never bringeth more than two at once; and she giveth milke at her dugs and paps, to her young. Shee bringeth them to the sea not before they be twelve daies old, and then she traineth and acquainteth them to swimme and keepe the water ordinarily. These Seales be hardly killed, unlesse a man dash out their braines. In their sleepe, they seeme to low or blea, and thereupon they be called Sea-calves. Docible they be and apt to learne whatsoever is taught them. They will salute folke with a kind of countenance and regard: also with a voice such as it is, resembling a certain rude and rumbling noise. If a man call them by their name, they will turn again, and in their language answer. There is no living creature sleepeth more soundly than they. The finnes which they use to swimme withall in the sea, serve their turns in stead of feet to go upon, when they be on land. Their skinnes, after they be flaied from their bodies, reteine still a proprietie and nature of the seas; for ever as the water doth ebbe, they are more rugged, and the haires or bristles stand up. Moreover, their right finnes or legs are thought to have a power and vertue to prouoke sleepe, if they be laid under ones beds head.

Chap. xiiii.

❧ *Of fishes that be without haire, how they breed, and how many sorts there be of them.*

OF such crearures as want haires, two onely there be that bring forth their young with life: and namely, the Dolphin and the Viper. Of fishes, properly so called, there be 74 kinds: besides those that have rough crustie skins, which I count not; whereof there be 30 sorts. Of every one of them in particular, we will speake else-where, and at another time: for now wee are to treat of the natures of the chiefe and principall.

Chap. xv.

❧ *Of the names and natures of many fishes.*

THe Tunies are exceeding great fishes: we have seene some of them to weigh fifteen talents, and the taile to be two cubits broad and a span. In some fresh rivers also, there be fish found

full

A full as bigge: and namely, the river-Whale called Silurus, in Nilus; the Laxe, in the Rhene; the Attilus, in the Po. This fish groweth so fat with ease and lying still, that otherwhiles it weighe thra thousand pounds: and being taken with a great hooke fastened and linked to a chaine, cannot be drawne forth of the river but with certaine yokes of oxen. And yet as big as he is, there is one little fish in comparison of him called Clupea, that killeth him: for upon a marveilous desire that he hath to a certaine veine that he hath within his jawes, he biteth it in sunder with his teeth, and so dispatcheth the fore-named great fish Attilus.

As for the Silurus, a cut-throat hee is where soever hee goeth, a great devourer, and maketh foule worke: for no living creatures come amisse unto him, he setteth upon all indifferently. The very horses oftentimes as they swim, he devoureth, and specially in Mœnus, a river of Germanie neere to Lisboa or Erlisbornis.

B Moreover, in the river Donow, there is taken the Mario, a fish much like to a Ruffe or Porpuis. Also in the river Borysthenes, there is found a fish by report, exceeding great, with no chine nor bone at all betweene; and yet the meat thereof is passing sweet and pleasant.

Within Ganges, a river of India, there be fishes snouted and tailed as Dolphins, 15 cubits long, which they call Platanistæ. And *Statius Sebosus* reporteth as strange a thing besides, namely, that in the said river there be certaine wormes or serpents with two finnes of a side, sixtie cubits long, of colour blew, and of that hew take their name [and be called Cyonoeides.] He saith moreover, that they be so strong, that when the Elephants come into the river for drinke, they catch fast hold with their teeth by their trunkes or muzzles, and maugre their hearts force them downe under the water; of such power and force they are.

C The male Tunies have no finnes under their bellies. In the spring time they goe out of the great [Mediteranean] sea, and by whole flotes and troupes enter into Pontus; for in no other sea doe they bring forth their young. Their young frie, which accompanie their dams (when they are lightned of their burden) into the sea again in the autumne, are called Cordylæ. Afterwards, they begin to call them Pelamides, and in Latine *Limosæ*, of the mud wherein they are kept: and when they be above one yeere old, then they be Tunies indeed, and so called. These Tunies are cut into peeces, whereof the nape of the necke, the bellie, and the flesh about the canell bone of the throat, are most commendable for meat: but these parcels onely when they be fresh and new killed, and yet then will they rise in a mans stomacke, and make him belch sower. The other parts being full of good meat and oleous withall, are laid in salt, and so put up in barrels and kept. And these peeces of the Tunie thus condite and powdred, are called Melandrya, cut in slices like to oke shingles for all the world. The woorst peeces of all others, be those that are next the taile, because they are not fat: but the best is that which is toward the throat: howsoever in other fishes the taile-peece is in greatest request, as being most stirred and exercised. As for the young Tunies called Pelamides, they are divided & cut into parcels, that be named Apolecti: but when they be cut peece-meale into certaine squares, those peeces are named Cybia.

All kind of fishes grow exceeding soone to their bignesse, and especially in the sea Pontus: the reason is, because a number of rivers bring fresh water into it, and in some sort make it sweet: and namely in it, there is one called Amia, which groweth so fast and so evidently, that a man may perceive how it waxeth from day to day. These fishes, togither with the old Tunies and the young, called Pelamides, enter in great flotes and skulls into the sea Pontus, for the sweet food that they there find: and every companie of them hath their severall leaders and captaines; and before them all, the Maquerels lead the way; which, while they be in the water, have a colour of brimstone; but without, like they be to the rest. The Maquerels serve the market well in Spaine, and furnish the fish-shambles: namely, when as the Tunies repaire not into their seas. As for the sea Pontus, there enter into it few or no ravenours that haunt and devoure fishes, unlesse it be the Seales and little Dolphins. The old Tunies, when they come into it, chuse the right side (upon the coast of Asia) but goe forth at the left. And this is the reason thereof, as it is thought, For that they see better with their right eye; and yet the sight of either of them is very good. Within the channell of the Thracian Bosphorus, by which Propontis joyneth to the sea Euxinus, in the very streight of the Firth that divideth Asia from Europe, neare to Chalcedon upon the coast of Asia, there standeth a rocke, exceeding white and bright withall, which is so transparent and shining from the very bottom of the sea to the top of the water, that the Tunies (affrighted at the sodaine sight thereof) to avoid it, goe alwaies amaine in whole flotes, toward the cape

overagainſt Bizantium, which cape thereupon beareth the name of Auricotum. And therefore it is, that the Bizantines make great gaine by fiſhing for them: whereas the Chalcedonians have a great miſſe of that commoditie, and yet the arme of the ſea or frith betweene them, is not paſt halfe a mile, or a mile at the moſt, over. Now they ever wait for the North wind, that (together with the tide) they might with more eaſe paſſe out of Pontus. Howbeit, the onely taking of them at Bizantium, is when they returne againe into Pontus. In Winter the Tunnies ſtirre not nor raunge abroad: but looke, whereſoever they are then found to bee, there they take up their Winter harbour, and make their abode untill the Spring Æquinoctiall about mid March. Many a time they will accompanie the ſhips that ſaile thereby with full wind, and it is a wonderfull pleaſant ſight for the ſailers to ſee them from the ſterne, how for certaine houres together, and for the ſpace of ſome miles, they will follow and attend upon the poupe, be the wind never ſo good, nay, although they ſtrike at them with the trout ſpeare ſundrie times, or launce at them ſome three-tined inſtrument, yet wil they not be chaſed away, nor skared. Theſe Tunnies that thus wait upon the ſhips under ſaile, ſome call Pompili. Many of them paſſe the Summer time in Propontis, and never enter into Pontus. Soles likewiſe uſe the ſame manner, and yet yee ſhall have many Turbots there. Neither ſhall a man find the Cuttil there, although there be good ſtore of Sea-cuts or Calamaries. Moreover, of Stone fiſhes, ſuch as live among rocks, the ſea Thruſh, the ſea Merle, and the purple ſhell-fiſhes are not to be found, where Oyſters notwithſtanding are in great abundance. For all ſuch Winter in the Ægæan ſea, called now Archipelago. Of them that enter into the ſea Pontus, there is none ſtaieth there, but goeth forth again, ſave onely the ſhell-fiſh called the Saredame or Trichia: for I thinke it good, in ſuch diverſitie of fiſhes names, ſeeing that one and the ſelfeſame fiſh is in many countries called diverſly, to uſe the Greeke name for the moſt of them. Theſe fiſh, I ſay, alone goe up the river Iſter, and out of it they paſſe againe by certaine iſſues and conduits under the ground, and ſo deſcend into the Adriatick ſea: and evermore a man ſhall ſee this kind of fiſh comming downe thither, but never mounting up againe out of that ſea. The right fiſhing for the Tunnies, and the onely taking of them is from the riſing of the ſtarre *Vergiliæ, to the ſetting of Arcturus. All the Winter time beſides they lie hidden in the deepe, at the bottome of pits and gulfes within the ſea, unleſſe they come foorth to take their pleaſure in ſome warme ſeaſon, or otherwhiles when the Moon is at the full. They grow ſometime ſo fat, that their skins will not hold, but they are readie to cleave and burſt withall. The longeſt time that they live is two yeares and not above. Moreover, there is a little creature or vermine, made ſomewhat like a Scorpion, and as big as a Spider, which uſually will ſet her ſharp ſting under the fin both of the Tunnie, and alſo of the ſword-fiſh (which many times is bigger than the Dolphin) and put them to ſuch paine, that to avoid them, they oftentimes are driven to launce themſelves, and skip into the very ſhips. Which propertie they have alſo at other times, for fear of the violence of other fiſhes: and moſt of all, the Mullets have this caſt with them; and this they doe with ſuch exceeding ſwiftneſſe and agilitie, that they will fling themſelves otherwhiles croſſe over the ſhips.

* i. In the beginning of May.

Chap. xvi.

Of preſages and foretokenings by fiſhes, and of their diverſitie.

NAture willing to endue this Element alſo of the water with ſome Auguries, hath given to fiſhes likewiſe a kind of preſcience and fore-knowledge of things to come. And verily during the Sicilian war, as *Auguſtus Cæſar* walked along the ſhore upon the ſands, there was a certaine fiſh leapt forth of the ſea, and light at his very feet. The Soothſaiers and Wiſards upon this occurrent, being ſought unto, gave this conſtruction thereof, and preſaged therby, That they who at that time were lords of the ſea, and held it in ſubjection, ſhould be ranged under the obedience of *Cæſar*, and at his devotion. And yet at that preſent it is thought and ſaid, That god *Neptune* had adopted *Sex. Pompeius* for his ſon, ſo fortunate he was, and ſuch exploits had he atcheeved upon the ſea.

The female kind of fiſhes are commonly bigger than the males. And there are ſome ſorts of them, whereof there be no males at all, but all females, as the Erythini and the Chani. For they be taken alwaies ſpawners, and full of egs.

Fiſhes that bee skaled, for the moſt part ſwim in troupes, and ſort together. The beſt fiſhing is before the ſunne be up: for then fiſhes ſee leaſt or not at all. For if the nights be cleare and moonſhine

ſhine, they ſee as well by night as day. Moreover, they ſay that it is good fiſhing twiſe in one and the ſame hole: for commonly upon the ſecond caſt, the draught is better than the firſt. Fiſhes love paſſing well to taſt oyle: they joy alſo and like well in ſoft and gentle ſhewers, and therewith they will feed and become fat. And good reaſon there is of it: for why? we ſee by experience that canes and reedes, although they breed in meeres and ſtanding waters, yet they grow not to the purpoſe without raine. Moreover, it is obſerved, that fiſh keeping evermore in one dead poole and never removed, will die whereſoever it be, unleſſe there fall raine water to refreſh them. All fiſhes feele the cold of a ſharpe and hard Winter, but thoſe eſpecially, who are thought to have a ſtone in their head, as the Pikes, the Chromes, Scienæ, & Pagri. If it be a bitter ſeaſon in winter, many of them are taken up blind. And therefore during thoſe cold moneths, they lurke hidden in holes, and within rockes, like as we have ſaid, certaine land creatures doe. But above all others the Lobſtars called Hippuri, and the Coracini, cannot abide extremitie of cold, and therefore be never caught in winter, unleſſe it be at certain times when they come forth of their holes, which they keepe duly, and never ſtirre but then. In like ſort, the Lamproie, the Orphe, the Conger, Perches and all ſtone-fiſhes that love rocks and gravell. Men ſay verily, that the crampe-fiſh, the Plaice, and the Sole lie hidden all Winter time in the ground, that is to ſay, in certaine creviſes and chinkes which they make in the bottome of the ſea. Contrariwiſe, ſome againe be as impatient of heat, and can as ill away with hote weather; and therefore about Midſummer for 60 daies they lie hidden and are not to be ſeene: as the ſea-fiſh Glaucus, the Cod, and the Gilthead. Of river-fiſhes, the Silurus or Sturgeon in the beginning of the dog daies is blaſted and ſtriken with a planet: at other times alſo in a thunder and lightening he is ſmitten, ſo as therewith he is aſtonied and lieth for dead. And ſome thinke that the like accident befalleth to the ſea Breame Cyprinus. And verily, all quarters of the ſea throughout, feele the riſing of the dog-ſtarre: but moſt of all the influence and power thereof is to be ſeene in the ſtreight of Boſphorus. For then may a man perceive ordinarily the reites of the ſea, and the fiſhes flote aloft, and the ſea ſo troubled, that every thing is caſt up from the bottome to the upper part of the water.

Chap. XVII.

Of the Mullet and other fiſhes: and that the ſame in all places are not of like requeſt.

THe Mullets have a naturall ridiculous qualitie by themſelves, to be laughed at: for when they be afraid to be caught, they will hide their head, and then they thinke they bee ſure ynough, weening that all their bodie is likewiſe hidden. Theſe Mullets nevertheleſſe are ſo lecherous, that in the ſeaſon when they uſe to engender, in the coaſts of Phœnice and Languedoc, if they take a milter out of their ſtewes or pooles where they uſe to keepe them, and draw a long ſtring or line through the mouth and guils, and ſo tie it faſt, and then put him into the ſea, holding the other end of the line ſtill in their hands, if they pull him againe unto them, they ſhal have a number of ſpawners or females follow him hard at taile to the banke ſide. Semblably, if a man doe the ſame with the female in ſpawning time, hee ſhall have as many milters follow after her. And in this manner they take an infinite number of Mullets.

In old time our aunceſtours ſet more ſtore by the Sturgeon, and it carried the name above all other fiſhes. He is the only fiſh that hath the skales growing toward the head: hee ſwims againſt the ſtreame. But now adaies there is no ſuch reckoning and account made of him: whereat I marvell much, conſidering he is ſo hard and ſeldome to be found. Some call him Elops. Afterwards, *Cornelius Nepos*, and *Laberius* the Poet and maker of merie rimes have written, that the ſea Pikes and the Cods gat away all the credit from the Sturgeon, and were of greateſt requeſt. As for the Pikes aforeſaid, the beſt and moſt commendable of all others be they which are called Lanati, as a man would ſay Cotton Pikes, for the whiteneſſe and tenderneſſe of their fleſh. Of Cods there be two ſorts, Callariæ, or Hadocks, which be the leſſe: and Bacchi, which are never taken but in the deepe, and therefore they are preferred before the former. But the Pikes that are caught in the river be better than all others. The fiſh called Scarus now carieth the price and praiſe of all others, and this fiſh alone is ſaid to chew cud, to live of graſſe and weeds, and not to prey upon other fiſhes. In the Carpathian ſea great ſtore of them is found: and by their good will they never paſſe the cape or promontorie Lectos in Troas. In the daies of *Tiberius Claudius* the Emperour,

Optatus his freed man (who ſometime had been a ſlave of his) and then Admirall and Lieutenant generall of a fleet under him, brought them firſt out of that ſea, and with them ſtored the whole coaſt of our ſeas betweene Oſtia and Campania. Order was taken by ſtreight inhibitions for the firſt five yeares, to kill none that were put into thoſe ſeas, but if any were taken, that they ſhould be caſt in againe. In proceſſe of time many of them came to be found and taken up all along the coaſt of Italie, whereas before, they were not to be had in thoſe parts. See how gluttonie, and the deſire to pleaſe a daintie tooth, hath deviſed means forſooth to ſow fiſh, and to tranſplant them as it were, ſo to ſtore the ſea with ſtrange breed: ſo that now we need no more to marvell, that forraine birds and foules, fet out of farre countries have their airies at Rome, and breed there. Next to theſe fiſhes abovenamed the table is ſerved with a kind of Lamprels or Eleponts like to ſea Lampreis, which are bred in certaine lakes about the Alpes, and namely, in that of Rhœtia called Brigantinus: and a ſtrange thing it is, that they ſhould be ſo like in proportion to thoſe of the ſea. Of all other fiſhes of any good account, the Barble is next, both in requeſt, and alſo in plentie. Great in quantitie they are not: for hardly ſhall you find any of them weigh above two pound, neither will they feed and grow in ſtewes and ponds. They are bred onely in the Northren ſea: and never ſhall you ſee them in the coaſt of the Weſt Ocean. Moreover, of this fiſh there be ſundrie ſorts. And they live all of Reites and Seawds, of Oyſters, of the fat mud, and of the fleſh of other fiſhes. They have all of them two beards, as it were, hanging downe evidently from their nether jaw. The worſt of all this kind, is that which is called Lutarius. And this fiſh hath another named Sargus, that willingly evermore beareth him companie: for whiles hee is rooting into the mud (whereof hee taketh his name) then commeth the Sargus, and devoureth the food that is raiſed therewith. Neither are the Barbels much accepted that keepe neare the ſhore, and in the river within land. But the beſt ſimply are thoſe that taſt like unto the ſhell-fiſh Conchylium. *Feneſtella* gave them the name Mulli, of certaine moyles or fine ſhoes, which in colour they doe reſemble. They caſt ſpawne thrice in one year at the leaſt: for ſo often their yong Frie is ſeene. Our great belligods ſay, that a Barble when hee is dying, changeth his hue, and turneth into an hundred colours: the proofe and experience whereof may be ſeene if he be put into a glaſſe: for through it, it is a pretie ſport to ſee how he altereth and changeth his ſkales being readie to die, one while into a pale and wan colour, otherwhiles into a reddiſh hue, one after another for many times together. *M. Apicius* (who was a man of all others moſt inventive and wonderfull for his wittie deviſes to maintaine riot and exceſſe) thought it was a ſingular way to ſtiffle and kill theſe Barbels in a certaine Pickle, called the Romane Allies ſauce, (ſee how even ſuch a thing as that, hath found a ſurname forſooth and a proper addition.) And he alſo went about to provoke men to deviſe a certaine manger or broth made of their livers, like to that dripping or gravie called Alec, that commeth of fiſhes when they pine and corrupt. For ſurely it is more eaſie for me to ſay who ſet men a worke that way firſt, than to ſet downe who woon the beſt game in the end, and was the greateſt glutton. *Aſturius Celer*, a man of great calling and high place, who ſometime had been Conſull, ſhewed his prodigalitie in this fiſh, and it was when *C. Caligula* was Emperour: for he gave for one Barbell eight thouſand Seſterces. Certes, the conſideration hereof raviſheth my mind, and carrieth it away to behold and wonder at thoſe, who in their reproofes of gluttonie and gourmandiſe, complained, that a cooke carried a greater price in the market than a good horſe of ſervice. For now adaies a cooke will coſt as much as the charge of a triumph: and one fiſh as deere as a cooke. And to conclude, no man is better eſteemed and regarded more, than he that hath the moſt cunning caſt to waſt the goods, and conſume the ſubſtance of his lord and maiſter.

Chap. xviii.

Of the Barbil, the fiſh Coracinus, Stock fiſh, and Salmon.

Licinius Mutianus reporteth, That in the red ſea there was taken a Barbell that weighed fourſcore pounds. Oh, what a price would he have borne among our gluttons here with us! what would he have coſt our prodigall ſpendthrifts, if hee had been taken upon our coaſts neere Rome? Moreover, this is the nature of fiſh, that ſome are cheefe in one place, and ſome in another. As for example, the Coracinus in Ægypt carrieth the name for the beſt fiſh. At Gades in Spaine, the Dorce or Goldfiſh, called Zeus and Faber. About the Iſle Ebuſus, the Stock-fiſh is

A much called for; whereas in other places it is counted but a baſe, muddie, and filthie fiſh: and which no where els they know how to ſeeth perfitely, unleſſe it be firſt well beaten with cudgels. In the countrey of Aquitaine or Guienne in Fraunce, the river Salmon paſſeth all other ſea Salmons whatſoever.

Of fiſh, ſome have many folds of guils: ſome ſingle, others double. At theſe guils they deliver againe and put forth the water that they take in at the mouth. You may know when fiſh bee old by their hard skales: and yet all fiſhes are not skaled alike. There be two lakes in Italie at the foot of the Alpes, named Larius and Verbanus, wherein fiſhes are to be ſeene every yeere at the riſing of the ſtarre Vergiliæ, thicke of skales, and the ſame ſharpe pointed, like to the tongues of buckles, wherewith horſemen or men of armes doe faſten their greives: and never els but about
B that month doe they appeare.

Chap. xix.

Of the fiſh Exocœtus.

THe Arcadians make wonderous great account of their Exocœtus; ſo called, for that he goeth abroad and taketh up his lodging on the drie land for to ſleepe. This fiſh (by report) about the coaſt Clitorius, hath a kind of voice, and yet is without guils. And of ſome hee is named Adonis. But beſides him, the ſea Tortoiſes alſo, (called Mures Marini) the Polypes and Lampreis uſe to goe forth to land. Moreover, in the rivers of India there is one certain fiſh doth
C ſo, but it leapeth backe againe into the water. For whereas many other fiſhes doe paſſe out of the ſea into rivers and lakes, there is great and evident reaſon thereof, namely, for that they are in more ſafetie there, both to caſt their ſpawne under the wind where the water is not ſo rough, and full of waves: and alſo to bring forth their little ones, becauſe there be no great fiſhes to devour them. That theſe dumbe creatures ſhould have the ſence hereof, thus to know theſe cauſes, and obſerve duly their times, is very ſtrange and wonderfull, if a man would ſound the depth thereof: but more hee would marvell to conſider how few men there bee that know which is the beſt ſeaſon for fiſhing, namely, whiles the ſunne paſſeth through the ſigne Piſces.

Chap. xx.

D

A diviſion of fiſhes, according to the forme and ſhape of their bodies.

OF ſea-fiſhes ſome be plaine and flat, as Byrts or Turbots, Solds, Plaice, and Flounders. And theſe differ from the Turbots only in the making of their bodie. For in a Turbot the right ſide turneth upward, and in a Plaice the left. Others again be long and round as the Lamprey and the Congre. And hereupon it is, that they have a difference in their fins, which Nature hath given to fiſh in ſteed of feet. None have above foure, ſome have twaine, ſome three, others none at all. Onely in the lake Fucinus there is a fiſh, which in ſwimming uſeth eight finnes. All that be long and ſlipperie as Yeeles and Congres, have ordinarily two in all, and no more. Lampreies have none to ſwim with, ne yet perfect guils: all of this kind wind and wriggle with their
E bodies within the water, and ſo erch forward, like as Serpents doe upon the earth. They creep alſo when they are upon drie land: and therefore ſuch live longer than the reſt out of the water. Alſo of the foreſaid flat fiſhes ſome have no finnes, as the puffen or forke-fiſh: for their breadth ſerveth them ſufficiently to beare them up, and to ſwim. And among thoſe that are counted ſoft, the Pourcuttell hath no fins, for his feet ſtandeth him in ſteed of fins to ſwim withall.

Chap. xxi.

Of Yeeles.

F YEeles live eight yeeres. And if the North wind blow, they abide alive without water ſixe daies, but not ſo long in a Southerne wind. But yet in Winter time they may not endure to be in a little water, nor if it be thicke and muddie: whereupon, about the riſing of the ſtarre Virgiliæ they bee commonly taken, for that the rivers about that time uſe to bee troubled. Their feeding moſt commonly is in the night. Of all fiſh, they alone (if they be dead) flote not above the water.

Chap.

G

Chap. xxii.

The manner of taking them in the lake Benacus.

THere is a lake in Italie called Benacus, within the territorie of Verona, through which the river Mincius runneth. At the issue wherof every yeare about the moneth of October, when the Autumne starre Arcturus ariseth, whereby (as it evidently appeareth) the lake is troubled as it were with a Winter storme and tempest, a man shall see rolling among the waves a wonderfull number of these yeels wound and entangled one within another: insomuch, as in the leapeweeles & weerenets devised for the nonce to catch them in this river, there be found sometime, a thousand of them wrapped together in one great ball. H

Chap. xxiii.

Of the Lamprey.

THe Lamprey spawneth at all times of the yeare, whereas all other Fishes are delivered of their young at one certaine season or other. The egs or spawne grow to a great passe exceeding soone. If they chance to slip out of the water to the drie land, the common sort is of opinion, that they engender with Serpents. The male or milter of this kind, *Aristotle* calleth Myrus. And herein is the difference: that the spawner properly called Muræna, is of sundrie colours, and spotted, and withall but weake: but the Mylter or the Myrus is of one hue, and withall I very strong, having teeth standing without his mouth. In the North parts of France all the Lampreis have in their right jaw seven spots, resembling the seven starres about the North pole, called *Charlemaines* waine. They bee of a yellow colour, and glitter like gold, so long as the Lampreis be alive: but with their life they vanish away and be no more seen, after they be dead. *Vedius Pollio*, a gentleman of Rome by calling, and one of the great favorites and followers of *Augustus Cæsar*, devised experiments of crueltie by the means of this creature. For he caused certain slaves condemned to die, to be put into the stewes where these Lampreies or Murænes were kept, to be eaten and devoured of them: not for that there were not wild beasts ynow upon the land for this feat, but because he tooke pleasure to behold a man, torne and pluckt in peeces all at once: which pleasant sight he could not see by any other beasts upon the land. It is said, that if they tast K vinegre of all things, they become enraged and mad. They have a very thin & tender skin: contrariwise yeeles have as thicke and tough: and *Verrius* writeth, That boies under seventeen years of age, were wont to be swinged and whipped with yeeles skins, and therfore they were freed from all other mulct and punishment.

Chap. xxiiii.

Of flat and broad fishes.

OF flat and broad fishes, there is another sort, which in lieu of a chine or backe bone have a gristle. As the Ray or Skait, the Puffin like unto it, the Maids or Thornebacke, and the L Crampefish: moreover, those which the Greekes have tearmed by the names of their sea Cow, their Dog-fish, their Ægle and Frog of the sea. In this ranke are to bee raunged the Squali also, albeit they are not so flat and broad. All this kind in generall, *Aristotle* hath called in Greeke Selache, and he was the first that gave them that name: wee in Latine cannot distinguish them, unlesse we call them all Cartilaginea, that is to say, Gristly fish. But all the sort of them that devour flesh are such: and their manner is to feed lying backward, like as wee observed in the Dolphins. And whereas other fishes cast spawn, which resemble knots of egs; these gristly fishes only, as also those great ones which we call Cete, *i.* Whales, bring forth their young alive: and yet I must except the one kind of them which they call Rana, *i.* the sea Frogs.

Chap. xxv. M

Of Echeneis, [i. the stay-ship.]

THere is a very little fish, keeping ordinarily about rockes named Echeneis. It is thought that if it settle and sticke to the Keele of a ship under water, it goeth the slower by that meanes: whereupon

A whereupon it was ſo called: and for that cauſe alſo it hath but a bad name in matters of love, for enchanting as it were both men and women, and bereaving them of their heat & affection that way: as alſo in law caſes, for delay of iſſues and judiciall trials. But both theſe imputations and ſlaunders, it recompenſeth againe with one good vertue and commendable qualitie that it hath: For in women great with child, if it be applied outwardly, it ſtaieth the dangerous fluxe of the wombe, and holdeth the child unto the full time of birth. Howbeit, it is not allowed for meat to bee eaten. *Ariſtotle* thinketh, that it hath a number of feet, the finnes ſtand ſo thicke one by another.

As for the ſhell-fiſh Murex, *Mutianus* ſaith it is broader than the Purple, having a mouth neither rough nor round, ne yet with a becke pointed cornered wiſe, but plaine and even, having
B a ſhell, which on both ſides windeth and turneth inward. Theſe Fiſhes chaunced upon a time to cleave faſt unto a ſhip, bringing meſſengers from *Periander*, with commiſſion to gueld all the noblemens ſonnes in Gnidos, and ſtaied it a long time, notwithſtanding it was under ſaile and had a ſtrong gale of a fore-wind at the poupe. And hereupon it is, that theſe ſhell-fiſhes for that good ſervice, are honoured with great reverence in the temple of *Venus*, among the Gnidians.

But to returne againe unto our Stay-ſhip Echeneis, *Trebius Niger* ſaith it is a foot long, and five fingers thick, and that oftentimes it ſtaieth a ſhip. And moreover, as he ſaith, it hath this vertue, being kept in ſalt, to draw up gold that is fallen into a pit or well being never ſo deepe, if it be let downe, and come to touch it.

C

Chap. xxvi.

The changeable nature of Fiſhes.

THe Cackarels change their colour: for theſe fiſhes being white all Winter time, they waxe blacke when Summer commeth. Likewiſe, the Mole or Lepo called Phycis, doth alter her hue: for howſoever all the yeare beſides it be white, in the Spring it is ſpeckled. This is the onely Fiſh that buildeth upon the reites and moſſe of the ſea, and laieth her egs, or ſpawneth in her neſt. The ſea Swallow flieth: and it reſembleth in all points the bird ſo called. The ſea Kite doth the ſame.

D

Chap. xxvii.

Of the fiſh called the Lanterne, and the ſea Dragon.

THere is a Fiſh commeth ordinarily above the water, called Lucerna, for the reſemblance which it hath of a light or lanterne. For it lilleth forth the tongue out of the mouth, which ſeemeth to flame and burne like fire, and in calme and ſtill nights giveth light and ſhineth. There is another Fiſh that putteth forth hornes above the water in the ſea, almoſt a foot and a halfe long, which thereupon tooke the name Cornuta. Againe, the ſea Dragon if he be caught and let goe upon the ſand, worketh himſelfe an hollow trough with his ſnout incontinently, with
E wonderfull celeritie.

Chap. xxviii.

Of bloudleſſe fiſhes.

SOme Fiſhes there be which want bloud: whereof wee now will ſpeake. Of them are three ſorts. Firſt, thoſe which bee called Soft: ſecondly ſuch as be covered with thin cruſts: and in the laſt place, they that are encloſed within hard ſhels. Of the firſt ſort, which be counted ſoft, are reckoned the ſea Cut or Calamarie, the Cuttle, the Polype, & the reſt of that ſort. Theſe have their head betweene their feet and the bellie, and every one of them have eight feet. As for
F the Cuttill and the Calamarie, have two feet apeece longer than the reſt, and the ſame rough, wherewith they convey and reach meat to their mouths: and with thoſe they ſtay themſelves as it were with anchor hold againſt the ſurging waves: the reſt of their feet bee ſmall like haires, and with them they hunt and catch their prey.

Chap.

Chap. xxix.

Of the Calamarie, Cuttles, Polypes, and Boat-fishes called Nautili.

ALso the Calamarie launceth himselfe out of the water, as if hee were an arrow: and even so doth little Scalops. The male of the Cuttles kind, are spotted with sundry colours more darke and blackish, yea and more firme and steadie, than the female. If the female be smitten with a Trout-speare, or such like three-forked weapon, they will come to aid and succor her, but shee againe is not so kind to them: for if the male be strucken, shee will not stand to it, but runneth away. But both of them, the one as well as the other, if they perceive that they be taken in such streights that they cannot escape, shed from them a certaine blacke humour like to inke, and when the water therewith is troubled and made duskish, therein they hide themselves, and are no more seene.

Of Polypes or Pourcontrels, there be sundrie kinds. They that keepe neere to the shoare are bigger than those that haunt the deepe. All of them help themselves with their finnes and arms, like as we doe with feet and hands: as for their taile, which is sharpe and two-forked, it serveth them in the act of generation. These Pourcontrels have a pipe in their back, by the help wherof they swim all over the seas; and it they can shift, one while to the right side, and another while to the left. They swim awrie or side-long with their head above, which is verie hard, and as it were puft up, so long as they be alive. Moreover, they have certaine hollow concavities dispearsed within their clawes or armes like to ventoses or cupping glasses, whereby they will sticke too, and cleave fast, as it were by sucking, to any thing; which they claspe and hold so fast (lying upward with their bellies) that it cannot be plucked from them. They never settle so low as the bottome of the water: and the greater they be, the lesse strong they are to claspe or hold any thing. Of all soft fishes, they only goe out of the water to drie land, especially into some rough place; for they cannot abide those that are plain and even. They live upon shell-fishes, and with their hairs or strings that they have, they will twine about their shells and cracke them in peeces: and therefore a man may know where they lie and make their abode, by a number of shells that lie before their nest. And albeit otherwise it be a very brutish and senslesse creature, so foolish withall, that it will swim and come to a mans hand; yet it seemeth after a sort to be wittie and wise, and keeping of house and maintaining a family: for all that they can take, they carrie home to their nest. When they have eaten the meat of the fishes, they throw the emptie shells out of dores, and lie as it were in ambuskado behind, to watch and catch fishes that swim thither. They chaunge their colour eftsoones, and resemble the place where they be, and especially when they be afraid. That they gnaw and eat their owne clawes and armes, is a meere untruth; for they be the Congres that doe them that shrewd turne: but true it is, that they will grow againe, like as the taile of snakes, adders, and lizards. But among the greatest wonders of Nature, is that fish, which of some is called Nautilos, of others Pompilos. This fish, for to come aloft above the water, turneth upon his backe, and raiseth or heaveth himselfe up by little and little: and to the end he might swim with more ease, as disburdened of a sinke, he dischargeth all the water within him at a pipe. After this, turning up his two foremost clawes or armes, hee displaieth and stretcheth out betweene them, a membrane or skin of a wonderfull thinnesse: this serveth him in stead of a saile in the aire above water: with the rest of his armes or clawes, he roweth and laboureth under water; and with his taile in the mids, hee directeth his course, and steereth as it were with an helme. Thus holdeth he on and maketh way in the sea, with a faire shew of a foist or galley under saile. Now if he be afraid of any thing in the way, hee makes no more adoe but draweth in water to ballaise his bodie, and so plungeth himselfe downe and sinketh to the bottome.

Chap. xxx.

Of the many-foot fish called Ozæna, of the Nauplius, and Locusts of the sea, or Lobster.

OF the Polypus or Pourcontrell kind with many feet, is the Ozæna, so called of the strong savour of their heads, for which cause especially, the Lampreys follow in chase after him.

As

A As for the Many-feet or Pourcuttels, they lie hidden for two moneths togither: and above two yeers they live not. They die alwaies of a conſumption or Phthyſicke: the female ſooner than the males, and ordinarily after that they have brought forth their young frie. I cannot overpaſſe but record the reports of *Trebius Niger*, one of the traine and retinue of *L. Lucullus* Proconſull in Bœtica, which he upon his knowledge delivered as touching theſe Many-feet fiſhes called Polypi: namely, That they are moſt deſirous and greedie of cockles, muſcles, and ſuch like ſhell-fiſhes: and they againe on the contrarie ſide, ſo ſoone as they feele themſelves touched of the Polypes, ſhut their ſhels hard, and therewith cut aſunder their clawes or armes that were gotten within: and thus fall they to feed upon thoſe, who ſought to make a prey of them. [Now in very truth theſe ſhell-fiſhes, all of them ſee not at all, neither have they any other ſenſe, but taſting
B of their meat, and feeling of their drinke.] Theſe Polypi fore-ſeeing all this, lie in wait to ſpie when the ſaid cockles, &c. gape wide open, and put in a little ſtone betweene the ſhells, but yet beſide the fleſh and bodie of the fiſh, for feare leaſt if it touched and felt it, ſhe would caſt it forth againe: thus they theeve, and without all daunger and in ſecuritie get out the fleſhie ſubſtance of the meat to devoure it: the poore cockles draw their ſhells together for to claſpe them betweene (as is above-ſaid) but all in vaine, for by reaſon of a wedge betweene, they will not meet cloſe nor come neere togither. See how ſubtle and craftie in this point theſe creatures be, which otherwiſe are moſt ſottiſh and ſenſeleſſe. Moreover, the ſaid *Trebius Niger* affirmeth, that there is not any other beaſt nor fiſh in the ſea more daungerous to doe a man a miſchiefe within the water, than is this Pourcuttle or Many-feet Polypus: for if he chaunce to light upon any of theſe dy-
C vers under the water, or any that have ſuffered ſhipwracke and are caſt away, hee aſſailes them in this manner: He catcheth faſt hold of them with his clawes or armes, as if he would wreſtle with them, and with the hollow concavities and noukes betweene, keepeth a ſucking of them; and ſo long he ſucketh and ſoketh their bloud (as it were cupping-glaſſes ſet to their bodies in divers places) that in the end he draweth them drie. But the onely remedie is this; to turne them upon their back, and then they are ſoon done and their ſtrength gone: for let them lie ſo, they ſtretch out themſelves abroad, and have not the power to claſpe or comprehend any thing. And verily all living creatures in the ſea love the ſmell of them exceeding well, which is the cauſe that fiſhers beſmeare and annoint their nets with them, to draw and allure fiſhes thither.

The reſt which mine author hath related as touching this fiſh, may ſeeme rather monſtrous
D lies and incredible, than otherwiſe: for he affirmed, that at Carteia there was one of theſe Polypi, which uſed commonly to go forth of the ſea, and enter into ſome of their open ceſterns and vauts among their ponds and ſtewes, wherein they kept great ſea-fiſhes, and otherwhiles would rob them of their ſalt-fiſh, and ſo go his waies againe: which hee practiſed ſo long, that in the end he gat himſelfe the anger and diſpleaſure of the maſters and keepers of the ſaid ponds and ceſterns, with his continuall and immeaſurable filching: wherupon they ſtaked up the place and empalled it round about, to ſtop all paſſage thither. But this thiefe gave not over his accuſtomed haunt for all that, but made meanes by a certaine tree to clamber over and get to the fore-ſaid ſalt-fiſh; and never could he be taken in the manner nor diſcovered, but that the dogges by their quicke ſent found him out and bayed at him: for as he returned one night toward the ſea, they
E aſſailed and ſet upon him on all ſides, and therewith raiſed the foreſaid keepers, who were affrighted at this ſo ſodaine an alarme, but more at the ſtraunge ſight which they ſaw. For firſt and foremoſt this Polype fiſh was of an unmeaſurable and incredible bigneſſe: and beſides, hee was beſmeared and beraied all over with the brine and pickle of the foreſaid ſalt-fiſh, which made him both hideous to ſee to, and alſo to ſtinke withall moſt ſtrongly. Who would ever have looked for a Polype there, or taken knowledge of him by ſuch markes as theſe? Surely they thought no other, but that they had to deale and encounter with ſome monſter: for with his terrible blowing and breathing that he kept, he drave away the dogges, and otherwhiles with the ends of his long ſtringed winding feet, he would laſh and whip them; ſomtimes with his ſtronger clawes like arms he rapped and knocked them well and ſurely, as it were with clubs. In ſumme, he made ſuch good ſhift for himſelfe, that hardly and with much adoe they could kill him, albeit he received many a wound by trout-ſpeares which they launced at him. Well, in the end his head was brought and ſhewed to *Lucullus* for a wonder, and as bigge it was as a good round hogſhead or barrell that would take and containe 15 Amphores: and his beards (for ſo *Trebius* tearmed his clawes and long-ſtringed feet) carried ſuch a thicknes and bulke with them, that hardly a man could fathom

one

one of them about with both his armes, ſuch knockers they were, knobbed and knotted like clubs, and withall 30 foot long. The concavities within them, and hollow veſſels like great baſons, would hold four or five gallons apeece: and his teeth were anſwerable in proportion to the bignes of his bodie. The reſt was ſaved for a wonder to be ſeen, and waighed 700 pound weight. This author of mine *Trebius* affirmeth, that Cuttels alſo and Calamaries have been caſt upon that ſhore, full as bigge. Indeed in our ſea there be Calamaries taken of five cubits long, and Cuttels of twaine, in length: and theſe live not above two years.

Mutianus reporteth, that himſelfe ſaw in Propontis another kind of fiſh, carrying as it were a ſhip of his owne, and making ſaile with it like to ſome galley: and a ſhell-fiſh it was, faſhioned with a keele like to a barge or barke, with a poupe embowed and turned up: yea and armed as it were in the proe with a three-forked pike. Within which lay hidden (as he ſaith) another living creature called Nauplius, reſembling a Cuttle-fiſh; and for no other reaſon in the world, but to make ſport and play with it for companie. Now the manner of this paſtime and ſailing was in two ſorts: for if it were a calme ſea and the winds downe, the Nauplius afore-ſaid that went as a paſſenger in this ſhell, would put downe his feet into the water like ores, and row therewith; but if a gale of wind were aloft, he would ſtretch the ſame a length and make them ſerve inſtead of an helme to ſteere withall; and then the Coquill or ſhell-fiſh would ſpread and diſplay it ſelfe like ſailes, to gather wind: ſo as the one of them tooke a pleaſure to cartie, in manner of the veſſell; the other had his delight to labour as a mariner, and to direct withall like to a pilot. Thus theſe two fiſhes (otherwiſe ſenſleſſe and blockiſh) take their pleaſure togither, unleſſe peradventure it fall out unhappily (for certain it is that ſuch a ſight as this preſageth no good to ſailers) that men marre their ſport, and either part them aſunder, or force them to ſinke under water.

The Lobſters (being of that kind which wanteth bloud) have a tender and brittle cruſt to cover and defend them. For five moneths they lie hidden. The Crabs likewiſe, who at the ſame time keepe cloſe and ſecret: and both of them in the beginning of every ſpring caſt their old coats or ſhells as ſnakes do their skins, and take them that be new and freſh. All others of this kind ſwim within the water: but the Lobſters flote aloft, and creepe as it were upon the water. So long as they are ſecure of any feare and daunger, they go directly ſtreight, letting downe their horns at length along their ſides, which naturally by themſelves have a round point or bob at the end: but if they be in any feare, up goe thoſe hornes ſtraight, and then they creepe byas and go ſidelong. With theſe hornes they oftentimes maintaine battaile one with another. Of all creatures, this onely hath a tender and ſhort kind of fleſh, which in the ſeething will not hang togither, unleſſe it be ſodden alive in ſcalding water, and then it will be ſtiffe and callous as brawne.

Chap. xxxi.

Of Sea-crabs, Vrchins of the ſea, and great Vrchins called Echinometræ.

AS for the Lobſters, they love rockes and ſtonie places: but Crabs delight in ſoft and delicate places. In winter, they ſeeke after the warme or ſun-ſhine ſhore: but when ſummer is come, they retire into the coole and deepe holes in the ſhade. All the ſort of them take harme and paire by winter: in autumne and ſpring, they battle and waxe fat; and eſpecially when the moon is at the full: becauſe that planet is comfortable in the night time, and with her warme light mitigateth the cold of the night. Of theſe Crab-fiſhes, there be many kinds: to wit, Lobſters, Creyviſhes of the ſea, Crabs of Barbarie called Majæ, Grampels, Grits or Pungiers, Crabs of Heraclea, yellow river Creyfiſhes, and divers others of more baſe account. As for the Lobſters, they differ from the reſt in taile. In Phœnicia, there is a kind of Crabs called Hippœe, or rather Hippeis (that is to ſay, Horſes or Horſemen) which are ſo ſwift, that it is impoſſible to overtake them. Crabs live long: eight clees or feet they have apeece, all crooked and hooked: the female hath the fore-clee double, the male but ſingle. Moreover, two of their legs or arms are forked and toothed like pincers. The upper part of theſe fore clawes doth ſtir: the nether part mooveth not. The right legge in them all is bigger than the left. When they come in skulls all togither (as ſomtimes they doe) they are not able to paſſe one by another the ſtreights of the ſea Pontus about Conſtantinople, whereupon they are forced to returne backe and fetch a compaſſe about, and the beaten way with their tracks may be ſeene. The leaſt of all theſe kind of Crabs, is called

A called * Pinnotheres, and for his ſmalneſſe, moſt ſubject and expoſed to take wrong. But as ſubtle and craftie he is, as he is little: for his manner is to ſhrowd and hide himſelfe within the ſhels of emptie oyſters: and ever as he groweth bigger and bigger, to goe into thoſe that be wider. Crabs when they be affraid, will recule backward as faſt as they went forward. They will fight one with another, and then yee ſhall ſee them jurre and butt with their hornes like rammes. Singular good they are againſt the biting and ſtinging of ſerpents. It is reported, that whiles the ſunne is in the ſigne Cancer, the bodies within of dead Crabs that lie with the water upon the drie land, will turne to be Scorpions. Of the ſame ſort that the Crabs be, are the Vrchins of the ſea called Echini; and theſe, in ſtead of feet, have certain pointed prickles. Their manner of going, is to roll themſelves, and tumble round: and therefore many times ſhall ye find them with their
B pricks worne. And of this ſort be they that are called Echinometræ. The longeſt prickles they have of all others, and the leaſt ſhells or caſes wherein they are. Neither are they all of the ſame colour of glaſſe: for about Torone they are found to be white, and have ſmall pricks. They have all of them five egges when they lay, but they are bitter. Their mouths ſtand in the mids of their bodies, bending downward to the earth. It is ſaid, that they have a fore-ſight and knowledge beforehand, of a ſea tempeſt: for by reaſon that they are ſo round, and therefore ſoon whirled and carried here and there, they fall then to labour and gather ſtones, wherewith they charge and peiſe their bodies as with ballaſt, that they may abide more ſtedfaſt, for that they are not willing to weare their pricks with rolling and turning over and over: which when the mariners and ſailers perceived once, then preſently they caſt many ankers, and ſtay their ſhips.

* Or, Pinnoteres.

C

Chap. xxxii.

Of Winkles, and ſea-Snailes.

IN the ſame ranke are to be reckoned the Winkles, as well of the land as the water. When they put themſelves out of their ſhells, they thruſt out two hornes that they have, and they will plucke them in againe when they liſt. Eies have they none to ſee withall; and therefore theſe little hornes ſerve them in good ſtead, to ſound as it were and trie the way as they go.

D

Chap. xxxiii.

Of Scallops: of the greateſt Winkle called *Murex*, and other kinds of ſhell-fiſhes.

THe great Scallops in the ſea, are counted of the ſame race: which lie hidden alſo in the time as well of great heat as cold. They have certaine nailes as it were, ſhining like fire in the night ſeaſon: yea in their very mouthes that be eating of them. As for the Pourcelanes or Murices, they have a ſtronger skaled ſhell; as alſo all the kind of Winkles great & ſmall. Wherein a man may ſee the wonderfull varietie of Nature in this play and paſtime of hers, giving them ſo many and ſundrie colours, with ſuch diverſitie of formes and figures: for of them ye ſhall have flat and plaine, hollow, long, horned like the moone croiſſant, full round, halfe round, and cut as it were juſt through the mids, bow-backt and riſing up, ſmooth, rough, toothed and indented like a ſaw, ridged and chamfired betweene, wrinkling and winding upward to the top like caltraps, bearing out ſharpe points in the edges, without-forth broad and ſpread at large, within-forth rolled in plaits. Moreover, there be other diſtinct ſhapes beſides all theſe: ſome bee ſtriped and raied with long ſtreakes, others creſted and blaſing with a buſh of long haire: ſome againe criſped and curled, others made like an hollow gutter or pipe: ſome faſhioned as it were a combe, others waving with plaits one above another tile-wiſe, others framed in the manner of a net or lattiſe: ſome are wrought crooked and byas, others ſpread out directly in length. A man ſhall ſee of them, thoſe that are made thicke and moſſie thruſt togither and compact, others ſtretched forth at large: yee ſhall have of them wrapt and lapt one within another. And to conclude, ye ſhall find them run round into a ſhort faſt knot, and all their ſides united togither in one: ſome flat and plaine, good to give a clap; others turning inward crooked like a cornet, made as it were to ſound and wind withall. Of all theſe ſorts, the Pourcelanes or *Venus* Winkles, ſwimme above the water, and with their concavitie and hollow part which they ſet into the weather, helpe themſelves in ſtead of ſailes, and ſo gathering wind, ſaile as it were aloft

upon the ſea. The manner of the Scalops is to skip, and otherwhiles they will leape forth of the water. They alſo can find the meanes to make a boat of themſelves, and ſo flote above and ſaile handſomely.

Chap. xxxiiii.

The riches of the Sea.

BVt what meane I all this while to ſtand upon theſe ſmall trifling matters, when as in very truth the overthrow of all honeſtie, the ruine of good manners, and in lieu thereof all ryot and ſuperfluitie, proceedeth from theſe ſhell-fiſhes, and from nothing ſo much? For now the world is growne to this paſſe, that there is nothing in it whatſoever, ſo chargeable to mankind, nothing ſo hurtfull and daungerous, as is the very Sea, and that ſo many waies: namely, in furniſhing the table with ſuch varietie of diſhes, in pleaſing and contenting the taſt with ſo many daintie and delicate fiſhes: and thoſe carrie the higheſt price, that be gotten with the greateſt hazard and daunger of thoſe that take them: otherwiſe they be of no regard and value to ſpeake of.

Chap. xxxv.

Of Pearles: how, and where they be found.

HOwbeit all that before-named is nothing in compariſon to the Purples, precious Coquils, and Pearls that come from thence. It was not ſufficient belike to bring the ſeas into the kitchin, to let them down the throat into the belly, unleſſe men and women both carried them about in their hands and eares, upon their head, and all over their bodie. And yet what ſocietie and affinitie is there betweene the ſea and apparell? what proportion betweene the waves and ſurging billowes thereof, and wooll? For ſurely this Element naturally receiveth us not into her boſome, unleſſe we be ſtarke naked. And ſet the caſe that there were ſo great good fellowſhip with it, and our bellies; How commeth our backe and ſides to be acquainted with it? But we were not contented to feed with the perill of ſo many men, unleſſe we be clad and arraied alſo therewith. Oh the folly of us men! See how there is nothing that goeth to the pampering and trimming of this our carcaſſe, of ſo great price and account, that is not bought with the utmoſt hazard, and coſteth not the venture of a mans life! But now to the purpoſe. The richeſt merchandiſe of all, and the moſt ſoveraigne commoditie throughout the whole world, are theſe Pearles. The Indian Ocean is chiefe for ſending them: and yet to come by them, wee muſt goe and ſearch amongſt thoſe huge and terrible monſters of the ſea, which we have ſpoken of before. We muſt paſſe over ſo many ſeas, and ſaile into farre countries ſo remote, and come into thoſe parts where the heat of the ſunne is ſo exceſſive and extreame: and when all is done, wee may perhaps miſſe of them: for even the Indians themſelves are glad to ſeeke among the Ilands for them; and when they have done all they can, meet with very few. The greateſt plentie of them is to be found in the coaſt of Taprobane and Toidis, as hath been ſaid before in our Coſmographie and deſcription of the world: and likewiſe about Perimula, a promontorie and citie of India. But the moſt perfect and exquiſite of all others, be they that are gotten about Arabia, within the Perſian gulfe of the red ſea. This ſhell-fiſh which is the mother of Pearle, differeth not much in the manner of breeding and generation, from the oyſters: for when the ſeaſon of the yeere requireth that they ſhould engender, they ſeeme to yawne and gape, and ſo doe open wide; and then (by report) they conceive a certaine moiſt dew as ſeed, wherewith they ſwell and grow bigge; and when time commeth, labour to be delivered hereof: and the fruit of theſe ſhell-fiſhes are the pearles, better or worſe, great or ſmall, according to the qualitie and quantitie of the dew which they received. For if the dew were pure and cleare which went into them, then are the pearles white, faire, and orient: if groſſe and troubled, the pearles likewiſe are dimme, foule, and duskiſh; pale (I ſay) they are, if the weather were cloſe, darke, and threatning raine in the time of their conception. Whereby no doubt it is apparent and plaine, that they participate more of the aire and skie, than of the water and the ſea; for according as the morning is faire, ſo are they cleere: otherwiſe, if it were miſtie and cloudie, they alſo will be thicke and muddie in colour. If they may have their full time and ſeaſon to feed, the pearles alſo will thrive and grow bigge: but if in the time it chaunce to lighten, then they cloſe their ſhells togither, and for want of nouriſhment

A riſhment are kept hungrie and faſting, and ſo the pearles keepe at a ſtay and proſper not accordingly. But if it thunder withall, then ſodainly they ſhut hard at once, and breed onely thoſe excreſcences which be called Phyſemata, like unto bladders puft up and hooved with wind, and no corporall ſubſtance at all: and theſe are the abortive & untimely fruits of theſe ſhell-fiſhes. Now thoſe that have their full perfection, and be ſound and good indeed, have many folds and skins wherein they be lapt, not unproperly as it may be thought, a thicke, hard, and callous rind of the bodie, which they that be skilfull doe pill and cleanſe from them. Certes, I cannot chuſe but wonder how they ſhould ſo greatly be affected with the aire, and joy ſo much therein: for with the ſame they wax red, and looſe their native whiteneſſe and beautie, even as the bodie of a man or woman that is caught and burnt with the ſunne. And therefore thoſe ſhells that keepe in the
B maine ſea, and lie deeper than that the ſun-beames can pierce unto them, keepe the fineſt and moſt delicate pearles. And yet they, as orient as they be, waxe yellow with age, become riveled, and looke dead without any lively vigor: ſo as that commendable orient luſtre (ſo much ſought for of our great lords and coſtly dames) continueth but in their youth, and decaieth with yeeres. When they be old, they will proove thicke and groſſe in the very ſhells, and ſticke faſt unto their ſides, ſo as they cannot be parted from them, unleſſe they be filed aſunder. Theſe have no more but one faire face, and on that ſide are round, for the backe part is flat and plaine; and hereupon ſuch are called Tympania, as one would ſay, Bell pearles. We ſee daily of theſe ſhells which ſerve as boxes to carrie ſweet perfumes and precious ointments, and moſt commendable they are for this gift, That in them there be pearles of this ſort naturally growing togither like twins.
C The pearle is ſoft and tender ſo long as it is in the water, take it forth once and preſently it hardeneth. As touching the ſhell that is the mother of Pearle, aſſoone as it perceiveth and feeleth a mans hand within it, by and by ſhe ſhutteth, and by that meanes hideth and covereth her riches within: for well woteth ſhe that therefore ſhe is ſought for. But let the fiſher looke well to his fingers, for if ſhe catch his hand betweene, off it goeth: ſo trenchant and ſharpe an edge ſhe carrieth, that is able to cut it quite a two. And verily this is a juſt puniſhment for the theefe, and none more: albeit ſhee be furniſhed and armed with other meanes of revenge. For they keepe for the moſt part about craggie rockes, and are there found: and if they be in the deepe, accompanied lightly they are with curſt Sea-dogs. And yet all this will not ſerve to skare men away from fiſhing after them: for why? our dames and gentlewomen muſt have their eares behan-
D ged with them, there is no remedie. Some ſay, that theſe mother-pearles have their kings and captaines, as Bees have: that as they have their ſwarmes led by a maſter Bee, ſo everie troupe and companie of theſe, have one ſpeciall great and old one to conduct it; and ſuch commonly have a ſingular dexteritie and woonderfull gift to prevent and avoid all daungers. Theſe they be that the dyvers after pearles are moſt carefull to come by: for if they be once caught, the reſt ſcatter aſunder and be ſoone taken up within the nets. When they be thus gotten, it is ſaid that they be put up into earthen pots and well covered with ſalt: and when the ſalt hath eaten and conſumed all the fleſh within, then certaine kernels that were within their bodies (and thoſe be the verie pearles) fall downe and ſettle to the bottome of thoſe pots. There is no doubt but with much uſe they will weare, yea and chaunge colour through negligence, if they be not
E well looked unto. Their chiefe reputation conſiſteth in theſe five properties, namely, if they be orient white, great, round, ſmooth, and weightie. Qualities I may tell you, not eaſily to be found all in one: inſomuch as it is impoſſible to find two perfitly ſorted togither in all theſe points. And hereupon it is, that our dainties and delicates here at Rome, have deviſed this name for them, and call them Vniones; as a man would ſay, Singular, and by themſelves alone. For ſurely the Greekes have no ſuch tearmes for them, neither know they how to call them: nor yet the Barbarians, who found them firſt out, otherwiſe than Margaritæ. In the very whiteneſſe it ſelfe, there is a great difference among them. That which is found in the red ſea, is the clearer and more orient. As for the Indian pearle, it reſembleth the skales and plates of the ſtone called Specularis; howſoever otherwiſe it paſſeth all others in greatneſſe. The moſt commendation
F that they have is in their colour, namely, if they may be truly called Exaluminati, *i.* orient and cleare as Alume. They that be goodly great ones, are commendable in their degree. As for thoſe that are long and pointed upward, growing downward broader and broader like a peare, or after the manner of Alabaſter boxes, full and round in the bottome, they be called Elenchi. Our dames take a great pride in a braverie, to have theſe not only hang dangling at their fingers,

but alſo two or three of them together pendant at their eares. And names they have forſooth newly deviſed for them, when they ſerve their turne in this their wanton exceſſe and ſuperfluitie of roiot: for when they knocke one againſt another as they hang at their eares or fingers, they call them Crotalia, *i.* Cymbals: as if they tooke delight to heare the ſound of their pearles ratling together. Now adaies alſo it is growne to this paſſe, that meane women and poore mens wives affect to weare them, becauſe they would be thought rich: and a by-word it is among them, That a fair pearle at a womans eare is as good in the ſtreet where ſhe goeth as an huiſher to make way, for that every one will give ſuch the place. Nay, our gentlewomen are come now to weare them upon their feet, and not at their ſhoe latchets onely, but alſo upon their ſtartops and fine buskins, which they garniſh all over with pearle. For it will not ſuffice nor ſerve their turne to carie pearles about them, but they muſt tread upon pearles, goe among pearles, and walke as it were on a pavement of pearles.

Pearles were wont to be found in our ſeas of Italie, but they were ſmall and ruddie, in certaine little ſhell fiſhes which they call Myæ: but more plentie of ſuch were taken up in the ſtreights of Boſphorus neere Conſtantinople. Howbeit, in Acarnania there is a little Cochle called Pinna, [*i.* a Nacre,] which engendreth ſuch. Wherby it may appeare, that there be more than one ſort of Mother-pearles. For king *Iuba* likewiſe hath left in writing, that in Arabia there is a kind of ſhelfiſh like unto a Scallop, ſave that it is not chamfred, but thick and rough like unto a ſea Vrcheon, which beareth Pearls within the very fleſh of the fiſh, like unto haile ſtones. But now adaies there be no ſuch mother-pearles come to our coaſts. Neither be there found in Acarnania any of value and reputation. For why they are all in manner without proportion, neither round nor weightie, and of a marble colour. They rather about the cape of Actium are better, and yet they be but little ones: like as they alſo which are taken in the coaſts of Mauritania. *Alexander Polyhiſtor*, and *Sudines*, are of opinion that they will age, and in the end looſe their colour. That they be ſolide and not hollow within, is evident by this, that with no fall they will breake. But they bee not alwaies found in the middeſt of the fleſh within the mother-pearles, but here & there, ſometime in one place, and ſometime in another. Verily I have ſeene of them about the brim and edges of the ſhell, as if they were readie to goe foorth: and in ſome foure, in others five together. Vnto this day few of them have beene knowne to weigh above halfe an ounce and one ſcriptule. In *Brittaine it is certaine that ſome do grow; but they bee ſmall, dim of colour, and nothing orient. For *Iulius Cæſar* (late Emperour of famous memorie) doth not diſſimule, that the cuirace or breaſt-plate which hee dedicated to *Venus* Mother within her temple, was made of Engliſh pearles.

*England.

I my ſelfe have ſeene *Lollia Paulina* (late wife, and after widdow, to *Caius Caligula* the emperor) when ſhee was dreſſed and ſet out, not in ſtately wiſe, nor of purpoſe for ſome great ſolemnitie, but only when ſhe was to goe unto a wedding ſupper, or rather to a feaſt when the aſſurance was made, and great perſons they were not that made the ſaid feaſt: I have ſeen her, I ſay, ſo beſet and bedeckt all over with hemerauld and pearles, diſpoſed in rewes, rankes, and courſes one by another: round about the attire of her head, her cawle, her borders, her perruke of hair, her bongrace and chaplet; at her ears pendant, about her neck in a carcanet, upon her wreſt in bracelets, & on her fingers in rings; that ſhe glittered & ſhone againe like the ſun as ſhe went. The value of theſe ornaments, ſhe eſteemed and rated at *400 hundred thouſand Seſtertij: and offered openly to prove it out of hand by her books of accounts and reckonings. Yet were not theſe jewels the gifts and preſents of the prodigall prince her husband, but the goods and ornaments from her owne houſe, fallen unto her by way of inheritance from her grandfather, which hee had gotten together even by the robbing and ſpoiling of whole provinces. See what the iſſue and end was of thoſe extortions and outrageous exactions of his: this was it, That *M. Lollius* ſlandered and defamed for receiving bribes and preſents of the kings in the Eaſt; and being out of favor with *C. Cæſar*, ſonne of *Auguſtus*, and having loſt his amitie; dranke a cup of poyſon, and prevented his judiciall triall: that forſooth his neece *Lollia*, all to be hanged with jewels of 400 hundred thouſand Seſtertij, ſhould bee ſeene glittering, and looked at of every man by candlelight all a ſupper time.

* 40 Millions.

If a man would now of the one ſide reckon what great treaſure either *Curius* or *Fabricius* carried in the pompe of their triumphs; let him caſt a proffer and imagine what their ſhewes were, what their ſervice at the table was: and on the other ſide, make an eſtimate of *Lollia*, one only woman

A man, the dowagier of an Emperour, in what glorie ſhe ſitteth at the bourd; would not he wiſh rather, that they had been pulled out of their chariots, and never triumphed, than that by their victories the ſtate of Rome ſhould have growne to this waſtfull exceſſe and intollerable pride? And yet this is not the greateſt example that can be produced of exceſſive riot and prodigalitie.

Two onely Pearles there were together, the faireſt and richeſt that ever have beene knowne in
2 the world: and thoſe poſſeſſed at one time by *Cleopatra* the laſt queene of Ægypt; which came into her hands by the means of the great kings of the Eaſt, and were left unto her by deſcent. This princeſſe, when *M. Antonius* had ſtrained himſelfe to doe her all the pleaſure hee poſſibly could, and had feaſted her day by day moſt ſumptuouſly, & ſpared for no coſt: in the heigth of her pride and wanton braverie (as being a noble curtezan, and a queene withall) began to debaſe the ex-
B pence and proviſion of *Antonie*, and made no reckoning of all his coſtly fare. When he thereat demaunded againe how it was poſſible to goe beyond this magnificence of his: ſhe anſwered againe, that ſhe would ſpend upon him in one ſupper *100 hundred thouſand Seſtertij. *Antonie*, *10 Millions.
3 who would needs know how that might bee (for hee thought it was unpoſſible) laid a great wager with her about it, and ſhe bound it againe, and made it good. The morrow after, when this was to be tried, and the wager either to bee won or loſt, *Cleopatra* made *Antonie* a ſupper (becauſe ſhe would not make default, and let the day appointed to paſſe) which was ſumptuous and roiall ynough: howbeit, there was no extraordinarie ſervice ſeene upon the bourd: whereat *Antonius* laughed her to ſcorne, and by way of mockerie required to ſee a bill with the account of the particulars. She againe ſaid, that whatſoever had been ſerved up alreadie, was but the overplus a-
C bove the rate and proportion in queſtion, affirming ſtill, that ſhee would yet in that ſupper make up the full ſumme that ſhee was ſeazed at: yea, her ſelfe alone would eat above that reckoning, and her owne ſupper ſhould coſt *600 hundred thouſand Seſtertij: and with that commaunded * 60 Millions.
the ſecond ſervice to bee brought in. The ſervitours that waited at her trencher (as they had in charge before) ſet before her one onely crewet of ſharpe vineger, the ſtrength whereof is able to reſolve pearles. Now ſhe had at her eares hanging thoſe two moſt precious pearles, the ſingular and onely jewels of the world, and even Natures wonder. As *Antonie* looked wiſtly upon her, and expected what ſhee would doe, ſhee tooke one of them from her eare, ſteeped it in the vine-
D ger, and ſo ſoon as it was liquefied, dranke it off. And as ſhe was about to do the like by the other, *L. Plancius* the judge of that wager, laid faſt hold upon it with his hand, and pronounced withall, That *Antonie* had loſt the wager. Whereat the man fell into a paſſion of anger. There was an end of one pearle: but the fame of the fellow thereof may goe with it: for after that this brave queen the winner of ſo great a wager, was taken priſoner and deprived of her roiall eſtate, that other pearle was cut in twaine, that in memoriall of that one halfe ſupper of theirs, it ſhould remaine unto poſteritie, hanging at both the eares of *Venus* at Rome, in the temple Pantheon. And yet as prodigall as theſe were, they ſhall not goe away with the prize in this kind, but ſhall looſe the name of the cheefe and principall, in ſuperfluitie of expence. For long before their time,
5 *Clodius* the ſonne of *Aeſope* the Tragedian Poet, the only heire of his father, who died exceeding wealthie, practiſed the ſemblable in two pearles of great price: ſo that *Antonie* needeth not to bee over prowd of his Triumvirate, ſeeing that hee hath to match him in all his magni-
E ficence, one little better than a ſtage-plaier: who upon no wager at all laid, (and that was more princely, and done like a king) but only in a braverie, and to know what taſt pearles had, mortified them in vinegre, and drunke them up. And finding them to content his palat wonderous well, becauſe hee would not have all the pleaſure by himſelfe, and know the goodneſſe thereof alone, he gave to every gueſt at his table one pearle apeece to drinke in like manner.

Feneſtella writeth, that after Alexandria was conquered and brought under obedience to the Romans, Pearles were rife at Rome, and commonly uſed of every man: alſo, that about the troubleſome time of *Sylla* they began firſt to be in requeſt: and thoſe were but ſmall ones, and of no price. Howbeit, he is groſſely deceived, and in a great error. For *Ælius Stilo* doth report in his Chronicle, that in the time of the warre againſt *Iugurtha*, the faire and goodly great Pearles be-
F gan to be named Vniones.

Theſe Pearles (to ſay a truth) are of the nature (in a manner) of an inheritance to deſcend by perpetuitie. They follow commonly in right the next heires. When they paſſe in ſale, they goe with warrantize, in as ſolemne manner as a good lordſhip.

As for the rich Purples, and the pretious Conchyles, every coaſt is full of them. And yet to

that exceſſe and prodigalitie we are now growne, and our wanton roiot (the mother of all inordinate and waſtfull expence) hath made them well neere as deere as Pearles.

Chap. xxxvi.

The nature of purple fiſhes, and the Murex or Burret.

PVrples live ordinarily ſeven yeares. They lie hidden for thirtie daies ſpace about the dog daies, like as the Murices or Burrets doe. They meet together by troupes in the ſpring, and with rubbing one againſt another, they gather and yeeld a certaine clammie ſubſtance and moiſture in manner of waxe. The Murices doe the like. But that beautifull colour, ſo much in requeſt for dying of fine cloth, the Purples have in the midſt of their neck and jawes. And nothing elſe it is, but a little thin liquor within a white veine: and that is it which maketh that rich, freſh, and bright colour of deepe red purple roſes. As for all the reſt of this fiſh, it yeeldeth nothing. Fiſhers ſtrive to take them alive, for when they die, they caſt up and ſhed that precious teinture and juice, together with their life. Now the Tyrians, when they light upon any great Purples, they take the fleſh out of their ſhels, for to get the bloud out of the ſaid vein: but the leſſer, they preſſe and grind in certaine milles, and ſo gather that rich humour which iſſueth from them. The beſt purple colour in Aſia is this, thus gotten at Tyros. But in Affricke, within the Iſland Meninx, and the coaſt of the Ocean by Getulia. And in Europe, that of Laconica. This is that glorious colour, ſo full of ſtate and majeſtie, that the Roman Lictors with their rods, halberds, and axes, make way for: this is it that graceth and ſetteth out the children of princes and noblemen: this maketh the diſtinction betweene a knight and conſellor of ſtate: this is called for and put on when they offer ſacrifice to pacifie the gods: this giveth a luſtre to all ſorts of garments: and to conclude, our great Generals of the field, and victorious captaines in their triumphs weare this purple in their mantels, enterlaced and embrodered with gold among. No marvell therefore if Purples be ſo much ſought for: and men are to be held excuſed, if they runne a madding after Purples. But how ſhould the other ſhell-fiſhes called Conchylia, be ſo deere and high priſed, conſidering the teincture of them carrieth ſo ſtrong and ſtinking a ſavor, ſo ſullen and melancholie a colour, enclining to a blew or watchet, and reſembling rather the angrie and raging ſea in a tempeſt? But to come unto the particular deſcription. The Purple hath a tongue of a finger long, pointed in the end ſo ſharpe, and ſo hard withall, that it is able to bore an hole and pierce into other ſhell-fiſhes, and thereby ſhe feeds and gets her living. In freſh water they will die all, or if they be plunged and throwne in any river: otherwiſe, after they be taken, they will continue alive fiftie daies, even with that viſcous and ſlimie humor of their owne. All ſhell-fiſh in generall grow apace in a very ſmall time: but Purples ſooneſt of all others: for in one yeare they will come to their full bigneſſe. Now, if I ſhould lay a ſtraw here, and proceed no further in this diſcourſe of Purples and ſuch like, ſurely our luxurious and roiotous ſpendthrifts would thinke they had great wrong, and were defrauded of their right: they might I ſay complaine of me, and condemne me of idleneſſe and negligence. Therfore I care not much to put my head within the diers ſhops and workhouſes: that like as every man for the neceſſitie of this life, knoweth how the price of corne goeth; even ſo our fine folke and brave dainties, who take ſuch pleaſure and delight in theſe colours, may bee perfect what is the reaſon of this their onely life. In the firſt place, theſe ſhell-fiſhes that ſerve either for purple colours, or other lighter dies of the Conchylia, are all one in matter: the difference onely is in temperature more or leſſe. And indeed, reduced they may all bee into two principall ſorts. For the leſſe ſhell called Buccinum, faſhioned like unto that horne or cornet, wherewith they uſe to wind and ſound, whereupon it tooke that name, hath a round backe, and is cut like a ſaw in the edges. The other is named Purpura, ſhooteth out a long becke like a guttur, and within the one ſide it doth writh and turne hollow in forme of a pipe, out of which the fiſh putteth forth a tongue. Moreover, this Purple is beſtudded (as it were) even as far as to the ſharpe top or turbant thereof round about with ſharpe knobs pointed, lightly ſeven in number: which the ſea-cornet Buccinum hath not. But this is common to both, that looke how many roundles they have like tendrils claſping about them, ſo many yeares old they bee. As for the Cornet Buccinum, it ſticketh alwaies to great ſtones and rockes, and therefore is ever found and gathered about them.

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Chap. xxxvii.

How many ſorts there be of Purples.

PVrples have another name, and be called Pelagiæ, as one would ſay, Fiſhes of the deepe ſea. But in truth there be many ſorts of them, & thoſe differing either in place where they keepe, or in food whereof they live. The firſt Lutenſe, i. muddie, becauſe it is nouriſhed of the corrupt and rotten mud: a ſecond Algenſe (the worſt of all) feeding upon reites or ſea weeds named Alga: the third, Tænienſe, (better than the former twaine) for that it is gathered and taken up about the brimmes and borders of the ſea, called for the reſemblance of fillets or liſts in a cloth, B Tæniæ. And yet this kind yeeldeth but a light colour, and nothing deepe. There be of them alſo which they tearme Calculoſæ, of the ſea gravell, which is wonderous good for all theſe kind of wilkes and ſhell fiſhes. And laſt of all, which ſimply bee the very beſt, the Purples Dialetæ, that is to ſay, wandering too and fro, chaunging their paſture, and feeding in ſundrie ſoiles of the ſea, [the muddie, the weedie, and the gravelly.] Now theſe Purples are taken with ſmall nets, and thin wrought, caſt into the deepe. Within which, for a bait to bite at, there muſt be certaine winckles and cockles, that will ſhut and open, and be readie to ſnap, ſuch as we ſee theſe limpins be, called C Mituli. Halfe dead they ſhould be firſt, that being new put into the ſea againe, and deſirous to revive and live, they might gape for water: and then the Purples make at them with their pointed tongue, which they thruſt out to annoy them: but the other feeling themſelves pricked therewith, preſently ſhut their ſhels together, and bite hard. Thus the Purples for their greedineſſe are caught and taken up, hanging by their tongues.

Chap. xxxviii.

The fiſhing time for Purples.

THe beſt time to take Purples, is after the dog ſtar is riſen, and before the Spring. For, when they have made that viſcous muſcilage in manner of waxe, their juice and humor for colour is overliquid, thin, and wateriſh. And yet the purple diers know not ſo much, nor take heed thereof, whereas indeed the skill thereof is a ſpeciall point of their art, and wherein lieth D all in all. Well, when they are caught, as is aboveſaid, they take forth that veine before mentioned: and they lay it in ſalt, or elſe they doe not well: with this proportion ordinarily, namely, to every hundred weight of the Purple liquour, a Seſtier or pint and halfe of ſalt. Full three daies and no more it muſt thus lie ſoking in powder. For the freſher that the colour is, ſo much is it counted richer and better. This done, they ſeeth it in leads, and to every Amphore, (i. which containeth about eight wine gallons) they put one hundred pound and a halfe juſt, of the colour ſo prepared. Boile it ought with a ſoft and gentle fire, and therefore the tunnell or mouth of the furnace muſt be a good way off from the lead and chawdron. During which time, the workemen that tend the lead, muſt eftſoones skim off and cleanſe away the fleſhie ſubſtance, which cannot chuſe but ſticke to the veines which containeth the juice or liquor of purple beforeſaid. And thus they continue ten daies, by which time ordinarily the lead or veſſell will ſhew the liquour cleere, E as if it were ſufficiently boiled. And to make a triall thereof, they dip into it a fleece of wooll well renſed and waſht out of one water into another: and untill ſuch time, that they ſee it give a perfect die, they ſtill plie the fire, and give it a higher ſeething. That which ſtaineth red is nothing ſo rich as that which giveth the deepe and ſad blackiſh colour. When it is come to the perfection, they let the wooll lie to take the liquor five houres: then they have it forth, touſe, and card it, and put it in againe, untill it hath drunke up all the colour, as much as it will. Now this is to be obſerved, that the ſea cornet Buccinum maketh no good colour of it ſelfe: for their die will ſhed and looſe the luſtre. And therfore uſually they joine to it the ſea Purple Pelagium, which maketh too deepe and browne a colour: unto which it giveth a freſh and lively teinture, as it were in graine, F and ſo maketh that ſad purple which they deſire. Thus by mixing and medling the force of both together, they mend one another, while the lightneſſe or ſadneſſe of the one doth quicken and raiſe, or elſe dorr and take downe the colour of the other. To the dying of a pound of wooll, they uſe this proportion of two hundred Buccina or ſea Cornets, joined with a hundred and eleven Pelagian Purples. And ſo commeth that rich Amethyſt or purple violet colour, ſo highly commended

mended above all other. But the Tyrians make their deepe red purple, by dipping the wooll first in the liquor of the Pelagian purples onely, whiles it is not throughly boiled to the heigth, but as it were greene yet and unripe; and thereof they let it take what it can drinke. Soone after they change it into another caudron or lead, where the colour of the sea Cornets alone is boiled. And then is it thought to have a most commendable and excellent die, when it is as deepe a red as bloud that is cold and setled, blackish at the first sight, but looke betweene you and the light, it carieth a bright and shining lustre. And hereupon it is, that *Homer* calleth bloud, Purple.

Chap. xxxix.

When they began at Rome to weare Purple first.

I Find in Chronicles, that Purple hath ben used in Rome time out of mind. Howbeit, king *Romulus* never ware it but in his roiall habite or mantell of estate, called *Trabea*. And well known it is, *Tullus Hostilius* was the first Romane king, who after he had subdued the Tuscanes, put on the long purple robe named *Pretexta*, and the cassock broched and studded with scarlet in broad guards. *Nepos Cornelius* who died in the daies of *Augustus Cæsar* the Emperour, When (quoth he) I was a yong man, the light violet purple was rife and in great request, and a pound of it was sold for a *hundred deniers: and not long after the Tarentine red purple or skarlet was much called for, and of the same price. But after it, came the fine double died purple of Tyros, called Dibapha: and a man could not buy a pound of it for a *thousand deniers, which was the price of ten pound of the other. *P. Lentulus Spinther* in his Ædileship of the chaire, first ware a long robe embrodered with it, and was checked and blamed therefore. But now adaies (quoth *Nepos*) what is he that will not hang his parlour and dining chamber therewith, and have carpets, cushins, and cup-bord clothes thereof? And it is no longer agoe when *Spinther* was Ædile, than in the seven hundreth year after the foundation of Rome, even when *Cicero* was Consull. This purple in those daies was called Dibapha, *i.* twice died: and that was counted a matter of great cost, & very stately withall and magnificent. But now yee shall have no purple cloths at all of any reckoning, but they have their double die. As for the cloth died with the purple of the shell-fish Conchylia, the manner of making the colour, and dying in all respects is the same, save that there be no sea Cornets used thereto. Moreover, the juice or liquor for that colour, is tempered with water in steed of the filthie pisse and urine of a man, altogether used in the other: and therein is sodden but the halfe proportion of colours to the foresaid tinctures. And thus is made that light pale stammell so highly commended, for being short of the deepe rich colour: and the lesse while that the wooll was suffered to drinke the fill, the more bright and fresh it seemeth.

*3 lib. 2 shil. 6 d. ster.

*3 lib. 5 shil.

Chap. xl.

The prices of wooll, died with these colours.

AS for these colours, they are valued deerer or cheaper, according to the coasts where these fishes are gotten more or lesse. Howbeit, it was never knowne that in any place, a pound of the right purple wooll, died with the Pelagian colour, or of the colour it selfe, was more worth than *five hundred Sesterces: nor a pound of the Cornets purple cost above one hundred. I would they knew so much that pay so deere for these wares by retale here at home, and cannot have them, but at an excessive rate. But here is not all, neither is this an end of expence that way, for one still draweth on another: and men have a delight to spend and lay on still one thing after another: to make mixtures and mixtures again, and so to sophisticate the sophistications of Nature: as namely to paint and die their seelings, even the very embowed rouses and arches in building: to mixe and temper gold and silver together, therewith to make an artificiall mettall Electrum: and by adding brasse or copper thereto, to have another mettall, counterfeiting the Corinthian vessels.

*3 lib. 18 shil. 1 d. ob.

Chap. xli.

The manner of dying the Amethyst, Violet, or Purple, the Chrymson and Scarlet in graine, and the light Stammell or Lustie-gallant.

IT would not suffice our prodigall spendthrifts to rob the precious stone Amethyst of his name, and to applie it to a colour: but when they had a perfect Amethyst die, they must have it to bee drunken

drunken againe with the Tyrian purple, that they might have a ſuperfluous and double name compounded of both (Tyriamethyſtus) correſpondent to their two-fold coſt and duple ſuperfluitie. Moreover, after they have accompliſhed fully the colour of the Conchylium, they are not content untill they have a ſecond die in the Tyrian purple lead. It ſhould ſeeme, that theſe double dies and compounded colours, came firſt from the errour and repentance of the workeman when his hand miſſed: and ſo was forced to change and alter that which hee had done before, and utterly miſliked. And hereof forſooth is come now a prettie cunning and art thereof: & the monſtrous ſpirits of our waſtfull perſons are growne to wiſh and deſire that, which was a fault amended firſt: and ſeeing the two-fold way of a double charge and expence troden before them by the diers, have found the meanes to lay colour upon colour, and to overcaſt and ſtrike a rich die with a weaker, ſo that it might be called a more pleaſant and delicate colour. Nay it will not ſerve their turne to mingle the aboveſaid tinctures of ſea-fiſhes, but they muſt alſo doe the like by the die of land-colours: for when a wooll or cloth hath taken a crimſon or skarlet in graine, it muſt be died again in the Tyrian purple, to make (I would not els) the light, red, and freſh Luſtie-gallant.

Alluding to the word Amethyſt, which reſiſteth drunkenneſſe.

As touching the Graine, ſerving to this tincture, it is red, and commeth out of Galatia, (as we ſhall ſhew in our ſtorie of earthly plants) or elſe about Emerita in Portugall, & that of all other is of moſt account. But to knit up in one word theſe noble colours, note this, That when this Graine is but of one yeares age, it maketh but a weake tincture; but after foure years, the ſtrength thereof is gone. So that neither young nor old it is of any great vertue. Thus I have ſufficiently and at large treated of thoſe meanes which men and women both, ſo highly eſteeme, and thinke to make moſt for their ſtate and honourable port, and ſetting out of themſelves in the beſt maner.

Chap. xlii.

Of the Nacre, and his guide or keeper, Pinnoter: and the perceivance of fiſhes.

THe Nacre alſo called Pinnæ, is of the kind of ſhell-fiſhes. It is alwaies found and caught in muddie places, but never without a companion, which they call Pinnoter or Pinnophylax. And it is no other but a little ſhrimpe, or in ſome places, the ſmalleſt crabbe; which beareth the Nacre companie, and waiteth upon him for to get ſome victuals. The nature of the Nacre is to gape wide, and ſheweth unto the little fiſhes her ſeelie bodie, without any eie at all. They come leaping by and by cloſe unto her: and ſeeing they have good leave, grow ſo hardie and bold, as to skip into her ſhell and fill it full. The ſhrimpe lying in ſpiall, ſeeing this good time and oportunitie, giveth token thereof to the Nacre ſecretly with a little pinch. She hath no ſooner this ſignall, but ſhee ſhuts her mouth, and whatſoever was within, cruſheth and killeth it preſently: and then ſhee devides the bootie with the little crab or ſhrimpe, her ſentinell and companion. I marvell therefore ſo much the more at them who are of opinion, that fiſhes and beaſts in the water have no ſence. Why, the very Crampe-fiſh Tarped, knoweth her owne force & power, and being her ſelfe not benummed, is able to aſtoniſh others. She lieth hidden over head and eares within the mud unſeene, readie to catch thoſe fiſhes, which as they ſwim over her, bee taken with a nummednеſſe, as if they were dead. There is no meat in delicate tenderneſſe, preferred before the liver of this fiſh. Alſo the fiſh called the *ſea Frog, (and of others, the ſea Fiſher) is as craftie everie whit as the other: It puddereth in the mud, and troubleth the water, that it might not bee ſeene: and when the little ſeely fiſhes come skipping about her, then ſhe puts out her little hornes or Barbils which ſhee hath bearing forth under her eies, and by little and little tilleth and tolleth them ſo neere, that ſhe can eaſily ſeaze upon them. In like manner, the Skate and the Turbot lie ſecret under the mud, putting out their finnes, which ſtirre and crawle as if it were ſome little wormes; and all to draw them neare, that ſhe might entrap them. Even ſo dooth the Rayfiſh or Thorn-backe. As for the Puffen or Fork-fiſh, hee lieth in await like a theefe in a corner, readie to ſtrike the fiſhes that paſſe by with a ſharpe rod or pricke that hee hath, which is his weapon. In concluſion, that this fiſh is very ſubtile and craftie, this is a good proofe, That being of all others moſt heavie and ſlow, they are found to have in their bellie the Mullets, which of all others be the ſwifteſt in ſwimming.

*Diable de Mer.

Chap.

Chap. xliii.

Of the Scolopendres, the sea Foxes, and the Glanis.

THese Scolopendres of the sea, are like to those long earewigs of the land, which they call Centipedes, or many-feet. The maner of this fish is this, when she hath swallowed an hook, to cast up all her guts within, untill she hath discharged her selfe of the said hooke, and then she suppeth them in againe. But the sea Foxes in the like danger have this cast with them, namely to gather in and let it goe downe into the throat more and more still of the line, untill he come to the weakest part thereof, which he may easily fret and gnaw asunder. The Glanis is more slie and warie than they both: for his propertie is to bite at the backe of the hooke, and not to goble it up whole, but nibble away all the bait, and leave the hooke bare.

Chap. xliiii.

Of the Ram-fish.

THis fish is a very strong theefe at sea, and makes foule worke where he commeth: for one while he squatteth close under the shade of bigge ships that ride at anker in the bay, where he lieth in ambush to wait when any man for his pleasure would swim and bath himselfe, that so he might surprise them: otherwhiles he putteth out his nose above the water, to spie any small fisher boats comming, & then he swimmeth close to them, overturneth and sinketh them.

Chap. xlv.

Of those that have a third or middle nature, and are neither living creatures nor yet Plants: also of the sea Nettle-fishes, and Spunges.

I Verily for my part am of opinion, that those which properly are neither beasts nor plants, but of a third nature betweene or compounded of both (the sea-Nettles I meane, and Sponges) have yet a kind of sense with them. As for those Nettles, there be of them that in the night raunge too and fro, and likewise chaunge their colour. Leaves they carrie of a fleshie substance, and of flesh they feed. Their qualitie is to raise an itching smart, like for all the world to the weed on the land so called. His manner is, when he would prey, to gather in his bodie as close, streight, and stiffe, as possibly may be. He spieth not so soone a silly little fish swimming before him, but hee spreadeth and displaieth those leaves of his like wings; with them he claspeth the poore fish, and so devoureth it. At other times, he lieth as if he had no life at all in him, suffering himselfe to be tossed and cast too and fro among the weeds, with the waves of the sea: and looke what fish soever he toucheth as he is thus floting, hee setteth a smart itch upon them, and whiles they scratch and rub themselves against the rocks for this itch, he setteth upon them and eateth them. In the night season, he laieth for sea Vrchins and Scalops. When he feeleth ones hand to touch him, he chaungeth colour, and draweth himselfe in close togither on a heap: and no sooner toucheth he one, but the place will itch, sting, and be readie to blister: make not good hast to catch him quickly, he is hidden out of hand and gone. It is thought verily, that his mouth lyeth in his root, and that hee voideth his excrements at a small pipe or issue above, where those fleshie leaves are.

Of Spunges, we find three sorts: the first thicke, exceeding hard, and rough; and this is called Tragos: a second, not all so thick, and somewhat softer; and that is named Manon: the third is fine and yet compact, wherewith they make sponges to cleanse and scoure withall, and this is tearmed Achilleum. They grow all upon rocks: and are fed with wilkes or shell-fish, with naked fish and mud. That they are not senselesse, appeareth hereby, for that when they feele that one would plucke them away, they draw in and retire backe hard, so as with greater difficultie they are pulled from the rocke. The like doe they when they be beaten upon with waves. That they live upon some food, it is manifest by the little coquill and muscle shells that be found within them. And some say, that about Torone they continue still alive after they be plucked from the rocks: and that of the roots which are left behind, they grow againe. Moreover, upon those rocks from whence they be pulled, there is to be seen as it were some blood sticking; and especially in those of Affricke, which breed among the Syrtes. The Manæ, which otherwise be the least, become very great and most soft withall, about Lycia. But they be more delicate which are nourished in

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the deepe gulfes, where leaſt wind or none is ſtirring. The rough kind, are in Helleſpont: and the fine and maſſie, about the cape Malea. In ſun-ſhine places they will corrupt and putrifie; and therefore the beſt are in the deepe gulfes and creeks, not expoſed to the ſun. They be of the ſame duske and blackiſh colour when they live, as they are afterwards being ſoked and full of moiſture. They cleave to rockes neither by any one part, nor yet entire and whole all over: for there are betweene, certaine void pipes foure or five commonly, by which they are ſuppoſed to receive their food and nouriſhment. There be more of theſe pipes and concavities, but above they are grown togither hard and not hollow. A certaine pellicle or thin skin a man may perceive them to have at their roots. For certein it is knowne, that they live long. The worſt kind of them all, be thoſe that are called Aplyſiæ, becauſe unneth they may be ſeparated, nor cleanſed and made cleane, they are ſo foule: for great pipes they have: thicke they are beſides throughout, and very maſſie.

Chap. xlvi.

Of Hound-fiſhes, or Sea-dogs.

THe dyvers that uſe to plunge downe into the ſea, are annoyed very much with a number of Sea-hounds that come about them, and put them in great jeopardie. And they ſay, that theſe fiſhes have a certain dim cloud or thin web, growing and hanging over their heads, reſembling broad, flat, and griſtly fiſhes, which clingeth them hard, and hindreth them from retiring backe and giving way. For which cauſe the ſaid dyvers (as themſelves ſay) carrie downe with them certaine ſharpe prickes or goads faſtened to long poles: for unleſſe they be proked at and pricked with them, they will not turne their backe; by reaſon (as I ſuppoſe) of a miſt before their eyes, or rather of ſome feare and amazednes that they be in. For I never heard of any man that found the like cloud or miſt (for this tearme they give unto that unhappie thing whatever it be) in the raunge of living creatures. But yet much adoe they have and hard hold with theſe Hound-fiſhes notwithſtanding: for they lay at their bellies and groines, at their heeles, and ſnap at everie part of their bodies that they can perceive to be white. The onely way and remedie is to make head directly affront them, and to begin with them firſt, and ſo to terrifie them: for they are not ſo terrible to a man, but they are as fraid of him againe. Thus within the deepe they are indifferently even matched: but when the dyvers mount up and riſe againe above water, then there is ſome ods betweene, and the man hath the diſadvantage, and is in more daunger; by reaſon that whiles he laboureth to get out of the water, he faileth of means to encounter with the beaſt, againſt the ſtreame and ſourges of the water. And therefore his onely recourſe is, to have helpe and aid from his fellowes in the ſhip: for having a cord tied at one end about his ſhoulders, he ſhaketh it with his left hand, to give ſigne in what daunger hee is, whiles he maintaineth fight with the right, by taking into it the puncheon with the ſharp point beforeſaid; and ſo at the other end they draw him to them: and they need otherwiſe to pull and hale him but ſoftly: mary when he is neere once to the ſhip, unleſſe they give him a ſodaine jerke and ſnatch him up quickly, they may be ſure to ſee him worried and devoured before their face: yea and when they are at the point to be plucked up, and even now readie to goe abourd, they are many times caught away out of their fellowes hands, if they beſtirre not themſelves the better, and put their owne good will to the helpe of them within the ſhip; namely, by plucking up their legges and gathering their bodies nimbly togither round as it were in a ball. Well may ſome from ſhip-bourd proke at the dogges aforeſaid with forkes; others thruſt at them with Trout ſpeares and ſuch like weapons, and all never the neare: ſo craftie and cautelous is this foule beaſt, to get under the very bellie of the barke, and ſo maintaine combat in ſafetie. And therfore all the care that theſe fiſhers have, is to provide for this miſchiefe, and to lie in wait for to entrap theſe fell, unhappie, and ſhrewd monſters.

Chap. xlvii.

Of thoſe fiſhes that lie within a ſtonie and hard flintie ſhell: alſo of thoſe that have no ſenſe: and of other naſtie and filthie creatures.

THe greateſt ſecuritie that fiſhers and dyvers have of ſafetie, is when they ſee the broad flat griſtly fiſhes: for certaine it is, that they be never in any place, where hurtfull and noiſome beaſts

beasts doe haunt: which is the cause that these dyvers which ducke and plunge for sponges, call those fishes Sacred.

We must needs confesse, that fishes within stone shells, have small or no sense, as namely oysters. Many are of the nature of very Plants, to wit, those that they call Holothuria: also Pulmones, resembling the lungs of a beast: and Star-fishes, made in forme of starres (such stars I mean as it pleaseth the painter to draw.) In summe, what is there not bred within the sea? Even the verie fleas that skip so merrily in summer time within victualling houses and Innes, and bite so shrowdly: as also lice that love best to lie close under the haire of our heads, are there engendred and to be found: for many a time the fishers twitch up their hookes, and see a number of these skippers and creepers settled thicke about their baits which they laid for fishes. And this vermin is thought to trouble the poore fishes in their sleep by night within the sea, as well as us on land. Last of all, some fishes there be, which of themselves are given to breed fleas and lice, among which the Chalcis, a kind of Turbot, is one.

Chap. xlviii.

Of venimous Sea-fishes.

MOreover, the sea is not without her deadly poisons: for the Sea hare, which keepeth in the Indish sea, is so venimous, that the very touching of him is pestiferous; and presently causeth vomiting and over-turning of the stomacke, not without great daunger. They which be found in our sea, seeme to be a peece or lumpe of flesh without all forme and fashion, in colour onely resembling the land Hare. But with the Indians they be full as big, and resemble their Hare, onely it is more stiffe and hard. And verily they cannot possibly be taken there alive. The dragon or spider of the sea, is as daungerous and mischievous a creature as the other: and with the pricks that sticke forth of his chine and back-bone, he doth much hurt. But in no place is there any more detestable and pernicious, than is the pike that standeth out upon the taile of Trigonius, which we in Latine call *Pastinaca*, *i.* the Puffin or Forkfish of the sea; the which pike is five inches long. So venimous it is, that if it be strucken into the root of a tree, it killeth it: it is able to pierce a good cuirace or jacke of buffe, or such like, as if it were an arrow shot or a dart launced: but besides the force and power that it hath that way answerable to yron and steele, the wound that it maketh, is therewith poisoned.

Chap. xlix.

Of fishes diseases.

WEe doe not here or read, that all sorts of fishes in generall be subject to maladies and diseases, as other beasts, and even those that are wild and savage. But that this or that fish in every kind may be sicke, it appeareth evidently, that some of them mislike and come to be carrion leane; whereas others of the same sort, be taken, not only in good plight but exceeding fat.

Chap. l.

The wonderfull manner of their generation.

IN what sort fishes doe engender, if I should not in this place shew, but put it off further, I should doe great wrong to mankind, who desire to know it, as much as they wonder how it should be. In one word, fishes engender by the friction and rubbing of their bellies one against another: which they performe with such celeritie, that no eye is so quicke as to note and observe it. Dolphins, and other great Whales, have no other way but that, mary they are longer somewhat about their businesse. The spawner, when the time serveth for generation, followeth after the male, and never linneth pecking and jobbing at his bellie with her muzzle. Semblably a little before spawning time, the milters follow after the female, only for that they would eat their spawne when they have cast it. But this is to be noted moreover, that the foresaid mixture and engendring of theirs is not sufficient for to accomplish generation, unlesse when their egges be laid or spawne cast, both male and female take it between them and keepe a turning of it, thereby

to

A to breath a lively ſpirit into it, and as it were beſprinkle it with a vitall dew, as it floteth upon the water. But turne they it and toſſe it, breath they upon it as much as they will, yet all thoſe little egs of their ſpawne doe not hit and come to proofe: for if they did, all ſeas and lakes, and all rivers and pooles would be ſo peſtered full with fiſhes, that a man ſhould ſee nothing els: for there is not one of theſe females, but at once conceiveth an infinite number in her bellie.

Chap. li.

More as touching the generation of fiſhes, and which they be that doe ſpawne in manner of egs.

B THe ſpawne or egs of fiſhes in the ſea, doe grow unto perfection, ſome of them exceeding ſoone, as that of the Lampreies: others are later ere they doe ſo. All flat and broad fiſhes, ſuch namely as have no tails and ſharp pricks to hinder (as have the Thornback, Skate, and Tortoiſes) when they engender, leape one another. The many-foot Pour cuttels in this action faſten one of their winding clawes to the noſe of the female. The Cuttels and Calamaries doe the feat with their tongues or pipes rather thruſt into their mouths, claſping one another with their armes, and ſwimming one contrary to the other: and as they conceive at the mouth, ſo they deliver their fruit againe at the mouth. This only is the difference, that the ſhee Calamaries in this buſineſſe, beare their heads downeward to the earth. As for thoſe that are ſoft cruſted, they doe it backward as dogs. Thus the Lobſters and Shrimpes engender. Crabs at the mouth. Frogs leape
C one another: the male with the forefeet claſpeth the arme pits of the female, and with the hind-feet the hanches. That which is engendred and brought forth, is as it were ſome little mites of blackiſh fleſh, which they call Tadpoles or Polwigs, ſhewing no good forme, but that they have ſome ſhew of eies onely, and a taile. Some few daies after, their feet are framed, and then parteth their taile in twaine, which ſerveth for the feet behind. And a ſtrange thing it is of them: after they have lived ſome ſixe moneths, they reſolve into a ſlime or mud, no man ſeeth how: and afterward with the firſt raines in the Spring, returne againe to their former ſtate, as they were firſt ſhapen, no man knoweth after what ſort, by a ſecret and unknowne way incomprehenſible; notwithſtanding it falleth out ordinarily ſo every yeare. As for the Limpins, Muskles, and Scallops, they breed of themſelves in the mud and ſands of the ſea. Thoſe which are of an harder coat, as
D the Pourcelanes and Purples, of a certaine viſcous and ſlimie ſubſtance like a muſcilong. As for that little frie, reſembling ſmall gnats and flies of the ſea, they come of a certaine putrifaction and ſowerneſſe of the water: as the Apuæ, which are the groundlings and Smies, of the ſome of the ſea ſet in an heat & chafed after ſome good ſhewer. They that are covered with a ſtonie ſhel, as Oiſters, breed of the rotten and putrified ſlime and mud of the ſea: or of the ſome that hath ſtood long about ſhips or ſtakes and poſts ſet faſt in the water, and eſpecially if they be of Holme wood. Howbeit, it hath been found of late in Oiſterpits, that there paſſeth from them in ſteed of Sperme a certain whitiſh humor like milke. As for Yeeles, they rub themſelves againſt rocks and ſtones, and thoſe ſcrapings (as it were) which are fretted from them, in time come to take life and prove ſnigs, and no other generation have they. Fiſhes of diverſe kinds engender not one
E with another, unleſſe it bee the Skate and the Raifiſh: and of them there commeth a fiſh, which in the forepart reſembleth a Ray, and in Greeke hath a name compounded of both [Rhinobatos.] Other fiſhes there be that breed indifferently on land and ſea, according to the warm ſeaſon of the yeare. In ſpring time Scallops, Snailes, and Horſeleeches doe engender, and by the ſame warmth quicken and come to life; but in Autumne they turne to nothing. The Pike and Sardane breed twice a yeer, like as all ſtone fiſhes. The Barbels thrice, as alſo a kind of Turbit called Chalcis, [i. the Shad:] the Carpe ſix times: the Scorpenes and Sargi twice, namely, in Spring and Autumne. Of flat broad fiſhes, the Skate onely twice in the yeer, to wit, in the Autumne, & at the ſetting or occultation of the ſtar *Vergiliæ*. The greateſt number of fiſhes engender for three months
M April, May, and Iune. The Cods or Stockfiſhes in Autumne. The Sargi, Crampfiſhes, & Squali, about the equinoctiall. Soft skinned fiſhes in the Spring: and the Cuttell in every month. The ſpawne of this fiſh, which hangeth together like a cluſter of grapes, by the meanes of a certaine blacke glew or viſcoſitie like ynke, the Milter dooth blow and breath upon before it can bee good, for otherwiſe it commeth to no proofe. The Pour-cuttles engender in Winter, and in the Spring, and then bring foorth a ſpawne criſped and curled (as it were) like the wreathing

braunches and tendrils of a vine braunch; and that in such plentie, that when they are killed they are not able to receive and containe the multitude of their egges in the concavitie or ventricle of their head and belly, which they bare when they were great. They hatch them in fiftie daies, but many of them prove addle and never come to good, there is such a number of them. The Lobsters and the rest with thin shells, lay egge after egge, and sit upon them in that manner. The female Pourcuttle, one while sitteth over her egges, another while she covereth the cranie or gutter where she hath laid them, with her clawes and arms enfolded crosse one over another lattise-wise. The Cuttle laieth also upon the drie land among the reeds, or els whereseever shee can find any sea-weeds or reits to grow, and by the fifteenth day hatcheth. The Calamaries lay egges in the deepe, which hang close and thicke togither, as the Cuttles doe. The Purples, Burrets, and such like, doe lay in the spring. The sea Vrchins are with egge every full moone in the winter time: and the winkles or cockles are bred in the winter likewise. The Crampfish is found to have fourescore young at once within her, and hatcheth her tender and soft egges within her bodie, shifting them from one place of the wombe to another. In like manner doe all they which are called Cartilagineus, or grisly. By which it commeth to passe, that fish alone both conceive with egge, and yet bring forth a living creature. The male sheath-fish or river-whale Silurus, of all others onely is so kind as to keepe and looke to the egges of the female after they be laid, many times for fiftie daies after, for feare they should be devoured of others. Other females hatch in three daies, if the male touch them. The Horne-beakes or Needle-fishes Belonæ, are the onely fishes which have within them so great egges that their wombe cleaveth and openeth when they should lay them: but after that they be discharged of them, it groweth togither and uniteth againe. A thing usuall (as they say) in Blind-wormes. The fish called Mus Marinus, diggeth a gutter or ditch within the ground, and there laieth her egges, and the same she covereth over with earth, and so lets them alone for thirtie daies, then she commeth and openeth the place againe, findeth her egges hatched, and leadeth her little ones to the water.

Chap. lii.

Of fishes wombes.

THe shell-fishes Erythini and Chanæ, have their wombs or matrices. As for that fish which in Greeke is called Trochos [*i.* the top] is thought to get it selfe with young. The frie of all water creatures, at the first, see not.

Chap. liii.

Of the exceeding long life of fishes.

IT is not long since that we heard of one fishes memorable example, which prooved the long life of fishes. There is a faire house of retreat and pleasure called Pausilupum, in Campaine not far from Naples; where (as *Annæus Seneca* writeth) there died a fish in the fish-pooles of *Cæsar*, threescore yeeres after that it had been put in by *Pollio Vedius*: and there remained two more of that age and of the same kind, which lived still. And since we are come to make mention of fish-ponds, me thinkes I should doe well to write somewhat more thereof, before I give over this discourse of fishes and water creatures.

Chap. liiii.

Of Oyster-pits, and who first devised them.

THe first that invented stewes and pits to keepe oysters in, was *Sergius Orata*, who made such about his house in Bajanum, in the daies of *L. Crassus* that famous oratour, before the Marsians warre. And this the man did not for his belly and to maintain gourmandise, but of a covetous mind for verie gaine. And by this and such wittie devises, hee gathered great revenues: for he it was that invented the hanging baines and pooles to bath in aloft upon the top of an house: and thus when hee had set out his manour house for the better sale, hee would make good merchandise of them, and sell them againe for commoditie and gaine. Hee was the first man that brought the Lucrine Oysters into name and credit for their excellent tast. For so it is,

that

A that the ſame kinds of fiſhes, in one place are better than in another. As the Pikes in the river Tiberis, which are taken betweene the two bridges: the Turbot of Ravenna: the Lamprey in Sicilie: the Elops at Rhodes, and ſo forth of other ſorts of fiſhes: for I doe not meane heere to make a bill of all the daintie fiſh to ſerve the kitchin. There was no talke then of Engliſh oiſters, when *Orata* brought thoſe of the Lucrine lake into requeſt, for as yet the Britiſh coaſts were not ours, which indeed have the beſt oyſters of all other. But afterwards it was thought it would quit the coſt and pay for the paines, to fetch oyſters from the furtheſt part of Italie, even as farre as Brundiſium. And becauſe there ſhould grow no quarrell nor controverſie ariſe, whether theſe or the former had the more delicate and pleaſant taſt, it was of late deviſed that the hungrie oyſters (which in the long carriage from Brundiſe were almoſt famiſhed) ſhould be fed with the reſt
B in the Lucrine lake, and ſo taſt alike. In thoſe very daies, but ſomwhat before *Orata*, *Licinius Murena* deviſed pooles and ſtewes for to keepe and feed other fiſhes: whoſe example noble men followed and did the like after them, namely, *Philip* and *Hortenſius*. *Lucullus* cut through a mountaine neere unto Naples for this purpoſe, namely, to let in an arme of the ſea into his fiſh-pools: the doing whereof coſt him more money, than the houſe it ſelfe which he there had built. Hereupon *Pompey* the Great gave him the name of Romane *Xerxes*, in his long robe. The fiſhes of that poole of his, after his death, were ſold for thirtie hundred thouſand Seſterces, *i.* three millions of Seſtereces.

Chap. lv.

C

Who invented the ſtewes for Lampreys.

Caius Hirtius was the man by himſelfe, that before all others deviſed a pond to keep Lampreys in. He it was that lent *Cæſar* Dictatour for to furniſh his feaſts and great ſuppers during the time of his triumph, 600 Lampreys, to be paid againe by weight and tale in the ſame kind: for ſell them hee would not right out for any money, nor exchaunge them for other commodities. A houſe he had for his pleaſure in the countrey, and but a very lirtle one, yet the ponds and fiſhes about it ſold the houſe for foure millions of Seſterces. In proceſſe of time folke grew to have a love and caſt a fancie to ſome one ſeverall fiſh above the reſt. For the excellent Oratour *Hortenſius* had an houſe at Bauli, upon the ſide that lyeth to Baiæ, and a fiſh-pond to it belonging: and he took ſuch an affection to one Lamprey in that poole, that when it was dead (by report) he could not hold but weepe for love of it. Within the ſame poole belonging to the ſaid houſe, *Antonia* the wife of *Druſus* (unto whome they fell by inheritance) had ſo great a liking to another Lamprey, that ſhe could find in her heart to decke it, and to hang a paire of golden earings about the guils thereof. And ſurely for the noveltie of this ſtraunge ſight, and the name that went thereof, many folke had a deſire to ſee Bauli, and for nothing elſe.

Chap. lvi.

The ſtewes of Winkles, and who firſt was the deviſer.

Fulvius Hirpinus was the firſt inventor of warrens as it were for Winkles, which hee cauſed to be made within the territorie of *Tarquinij*, a little before the civile warre with *Pompey* the Great. And thoſe had their diſtinct partitions, for ſundrie ſorts of them: that the white, which came from the parts about Reate, ſhould be kept apart by themſelves: the Illyrian (and thoſe were chiefe for greatneſſe) alone by their ſelves: the Africanes (which were moſt fruitfull) in one ſeverall: and the Solitanes (ſimply the beſt of all the reſt) in another. Nay, more than that, he had a deviſe in his head to feed them fat, namely, with a certaine paſt made of cuite and wheate meale, and many other ſuch like: to the end forſooth, that the gluttons table might be ſerved plentifully with home-fed and franked great Winkles alſo. And in time, men grew to take ſuch a pride and glorie in this artificiall feat, and namely, in ſtriving who ſhould have the biggeſt, that in the end one of their ſhells ordinarily would containe * foureſcore meaſures called Quadrants, if *M. Varro* ſay true, who is mine author.

* 3 wine gallons and three quarts: for Quadrans is 3 Cyathi, *i.* the 4 part of Sextarius, & Sextarius is a wine pint & a halfe, or 18 ounces.

Chap. lvii.

Of Land fishes.

THeophrastus also telleth strange wonders of certain kinds of fishes, which are about Babylon, where there be many places subject to the inundations of Euphrates and other rivers, and wherein the water standeth, after that the rivers are returned within their bankes: in which the fish remaine in certaine holes and caves. Some of them (saith he) use to issue forth a land for food and releese, going upon their finnes in lieu of feet, and wagging their tailes ever as they go. And if any chase them, or come to take them, they will retire backe into their ditches aforesaid, and there make head and stand against them. They are headed like to the *sea Frog, made in other parts as Gudgeons, and guilled in manner of other fishes. Moreover, that about Heraclea and Cromna, and namely neare the river Lycus, and in many other quarters of the kindome of Pontus, there is one kind above the rest that ever haunteth rivers sides, and the utmost edges of the water: making her selfe holes under the bankes, and within the land wherein shee liveth, yea, even when the bankes are drie, and the rivers gathered into narrow channels. By reason whereof they are digged forth of the earth: and as they say that find them, alive they bee, as may appeare by moving and stirring of their bodies. Neere unto the aboveseid Heraclea and the river Lycus, when it is fallen and the water ebbe, there be fishes breed of the egges and spawne left upon the mud and sand, who in seeking for their food, doe stirre and pant with their little guils: which they use to doe when they want no water, but even then when as the river is full. Which is the reason also that yeeles live a long time after they be taken foorth of the water. Hee affirmeth moreover, that the egs of fishes lying upon the drie land, will come to their maturitie and perfection, and namely those of the Tortoises. Also, that in the same countrey of Pontus, there bee taken fishes upon the yce, and gudgeons especially, which shew not that they bee alive, but by their stirring and leaping when they come to be sodden in hote caudrons. Hereof may some reason yet be rendred, although the thing be straunge and wonderfull. The same authour avoucheth, that in Paphlagonia there be digged out of the ground certaine land fishes that be excellent good meat, and most delicate: but they be found in drie places remote from the river, and whither no waters flow, whereby they are forced to make the deeper trenches for to come by them. Himselfe marvelleth how they should engender without the helpe of moisture. Howbeit, hee supposeth that there is a certaine minerall and naturall force therein, such as wee see to sweat out in pits, for as much as diverse of them have fishes found within them. Whatsoever it is, surely lesse wonderfull this is, considering how the Moldwarpes live (a creature naturally keeping under the ground) unlesse haply we would say that fishes were of the same nature that earth wormes be of.

* Or the sea divell.

Chap. lviii.

Of the Mice of Nilus.

BVt the innundation of Nilus cleareth all these matters: the overflowing whereof is so admirable, and so farre passeth all other wonders, that we may beleeve these things. For when as this river falleth and returneth againe into his channell, a man may find upon the mud yong Mice halfe made, proceeding from the generative vertue of water and earth together: having one part of their bodie living alreadie, but the rest as yet mishapen, and no better than the verie earth.

Chap. lix.

Of the fish Anthias, and how hee is taken.

I Thinke it not meet to conceale that, which I perceive many doe beleeve and hold, as touching the fish Anthias. We have in our Cosmographie made mention of the Islands Cheldoniæ in Asia, situate in a sea full of rocks under the promontorie of Taurus; among which are found great store of these fishes: and much fishing there is for them, but they are suddainely taken, and ever after one sort. For when the time serveth, there goeth forth a fisher in a small boat or barge, for certaine daies together, a pretie way into the sea, clad alwaies in apparell of one and the same colour, at one houre, and to the same place still, where he casteth forth a bait for the fish. But the fish

A fiſh Anthias is ſo craftie and warie, that whatſoever is throwne forth, hee ſuſpecteth it evermore, that it is a meanes to ſurpriſe him. He feareth therfore, and diſtruſteth: and as he feareth, ſo is he as warie: untill at length, after much practiſe & often uſing this deviſe of flinging meat into one place, one above the reſt groweth ſo hardie and bold, as to bite at it, for now by this time hee is growne acquainted with the manner thereof, and ſecure. The fiſher takes good marke of this one fiſh, making ſure reckoning that he will bring more thither, and be the means that he ſhall ſpeed his hand in the end. And that is no hard matter for him to doe, becauſe for certaine daies together, that fiſh and none but he, dare adventure to come alone unto the bait. At length this hardie captaine meets with ſome other companions, and by little and little he commeth every day better accompanied than other, untill in the end he brings with him infinite troupes and ſquadrons
B together, ſo as now the eldeſt of them all (as craftie as they bee) being ſo well uſed to know the fiſher, that they will ſnatch meat out of his hands. Then he eſpying his time, putteth forth an hook with the bait, ſomewhat beyond his fingers ends, flieth and ſeizeth upon them more truly, then catcheth them, and ſpeedily with a quick and nimble hand whippeth them out of the water within the ſhaddow of the ſhip, for feare leaſt the reſt ſhould perceive, and giveth them one after another to his companion within; who ever as they be ſnatcht up, latcheth them in a courſe twillie or covering, and keepes them ſure ynough from either ſtrugling or ſqueaking, that they ſhould not drive the reſt away. The ſpeciall thing that helpeth this game and pretie ſport, is to know the captaine from the reſt, who brought his fellowes to this feaſt, and to take heed in any hand that he be not twitcht up and caught. And therefore the fiſher ſpareth him, that he may flie and goe
C to ſome other flocke, for to traine them to the like banket. Thus you ſee the manner of fiſhing for theſe Anthiæ. Now it is reported moreover, that one fiſher upon a time (of ſpightfull mind to doe his fellow a ſhrewd turne) laid wait for the ſaid captaine fiſh, the leader of the reſt (for he was verie well knowne from all others,) and ſo caught him: but when the foreſaid fiſher eſpied him in the market to be ſold, and knew it was he: taking himſelfe miſuſed & wronged, brought his action of the caſe againſt the other, and ſued him for the dammage, and in the end condemned him. *Mutianus* ſaith moreover, That the plaintife was awarded to have for recompence, ten pounds of the defendant. The ſame fiſhes, if they chaunce to ſee one of their fellows caught with an hooke, by report, with their ſharpe finnes which they have upon their backe like ſawes, cut the line in twaine: for he that hangeth at it, will of purpoſe ſtretch it out ſtreight, that it may bee cut aſunder more eaſily. But the Sargots have another tricke for that: for he that finds himſelfe taken, fretteth the line in twaine, whereto the hooke hangeth, againſt a hard rocke.

Chap. lx.

Of the ſea fiſhes called Starres.

OVer and beſides all theſe, I ſee that ſome deep clearks and great Philoſophers have made a wonder at the Starre in the ſea. And verily it is no other than a very little fiſh, made like a ſtarre (as we ſee it painted.) A ſoft fleſh it hath within: but without-forth an hard brawnie skin. Men ſay it is ſo fierſe hote, that whatſoever it toucheth in the ſea, it burneth: and looke what meat it receiveth, it makes a hand with it, and digeſteth it preſently. What prooſe there is hereof, and how men ſhould come to the knowledge and experience of thus much, I cannot readily ſet downe. I would thinke that rather more memorable and worthie to bee recorded, whereof wee have daily experience.

Chap. lxi.

Of the Dactyli, and their wonderfull qualities.

OF the ſhell fiſh kind are the Dactyli, ſo called of the likeneſſe of mens nailes, which they reſemble. The nature of this fiſh is to ſhine by themſelves in the dark night, when all other light is taken away. The more moiſture they have within them, the more light they give: inſomuch as they ſhine in mens mouths as they be chawing of them: they ſhine in their hands: upon the floore on their garments, if any drops of their fattie liquor chaunce to fall by: ſo as it appeareth, that doubtleſſe it is the very juice and humour of the fiſh which is of that nature, which we doe ſo wonder at in the whole bodie.

Chap. lxii.

Of the enmitie and amitie which is betweene fishes and other water beasts.

SVch concord there is in some, and such discord in others, as it is wonderfull. The Mullet and the sea-Pike hate one another, and bee ever at deadly warre: likewise, the Congre and the Lamprey: insomuch as they gnaw off one anothers taile. The Lobster is so afraid of the Polype or Pourcuttell, that if he spie him neere, he evermore dieth for very woe. The Lobsters are readie to scratch and teare the *Congre: the Congres againe doe as much for the Polype. *Nigidius* writeth, That the sea-Pike biteth off the Mullets taile: and yet the same fishes in certaine set months are good friends, and agree well ynough. Hee saith moreover, that those Mullets live all, notwithstanding their tailes be so curtold. On the other side, there be examples of freindship among fishes, besides those, of whose societie and fellowship I have alreadie written: and namely, betweene the great Whale Balæna, and the little Musculus. For whereas the Whale aforesaid hath no use of his eies (by reason of the heavie weight of his eie-browes that cover them) the other swimmeth before him, serveth him in steed of eies and lights, to shew when hee is neere the shelves and shallowes, wherein he may be soone grounded, so big and huge he is.

Locustæ Congrum, ex Arist. *lib. 8. cap. 2. histor. animal.*

Thus much of Fish. Hence forward will we write of Foules.

THE TENTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

Chap. i.

The nature of Birds and Foules.

IT followeth now that wee should discourse of the nature of Foules. And first to begin with Ostriches. They are the greatest of all other foules, and in manner of the nature of foure footed beasts: (namely, those in Affricke and Æthyopia) for higher they bee than a man sitting on horsebacke is from the ground: and as they bee taller than the man, so are they swifter on foot than the very horse. For to this end onely hath Nature given them wings, even to helpe and set them forward in their running: for otherwise, neither flie they in the aire, ne yet so much as rise and mount from the ground. Cloven houses they have like red deere, and with them they fight; for good they be to catch up stones withall, & with their legs they whurle them back as they run away, against those that chase them. A wonder this is in their nature, that whatsoever they eat (and great devourers they bee of all things, without difference and choise) they concoct and digest it. But the veriest fooles they be of all others. For as high as the rest of their bodie is, yet if they thrust their head and necke once into any shrub or bush, and get it hidden, they thinke then they are safe ynough, and that no man seeth them. Now two things they doe affoord, in recompence of mens paines that they take in hunting and chasing them: to wit, their egs, which are so big, that some use them for vessels in the house: and their feathers so faire, that they serve for pennaches to adorne and set out the crests and morions of souldiors in the warres.

Chap.

A

Chap. ii.

Of the Phœnix.

THe birds of Æthyopia and India, are for the moſt part of diverſe colours, and ſuch as a man is hardly able to decipher and deſcribe. But the Phœnix of Arabia paſſeth all others. Howbeit, I cannot tell what to make of him: and firſt of all, whether it be a tale or no, that there is never but one of them in the whole world, and the ſame not commonly ſeen. By report he is as big as an Ægle: for colour, as yellow & bright as gold; (namely, all about the neck;) the reſt of the bodie a deepered purple: the taile azure blew, intermingled with feathers among, of roſe cornation colour: and the head bravely adorned with a creſt and pennache finely wrought; having a tuft and plume thereupon, right faire and goodly to be ſeene. *Manilius*, the noble Romane Senatour, right excellently well ſeene in the beſt kind of learning and litterature, and yet never taught by any, was the firſt man of the long Robe, who wrote of this bird at large, & moſt exquiſitely. Hee reporteth, that never man was knowne to ſee him feeding: that in Arabia hee is held a ſacred bird, dedicated unto the Sunne: that hee liveth 660 yeares: and when hee groweth old, and begins to decay, he builds himſelfe a neſt with the twigs and branches of the Canell or Cinamon, and Frankincenſe trees: and when he hath filled it with all ſort of ſweet Aromaticall ſpices, yeeldeth up his life thereupon. He ſaith moreover, that of his bones & marrow there breedeth at firſt as it were a little worme: which afterwards proveth to bee a pretie bird. And the firſt thing that this yong new Fhœnix doth, is to performe the obſequies of the former Phœnix late deceaſed: to tranſlate and carie away his whole neſt into the citie of the Sunne neere Panchæa, and to beſtow it full devoutly there upon the altar. The ſame *Manilius* affirmeth, that the revolution of the great yeare ſo much ſpoken of, agreeth juſt with the life of this bird: in which yeare the ſtarres returne againe to their firſt points, and give ſignification of times and ſeaſons, as at the beginning: and withall, that this yeare ſhould begin at high noone, that very day when the Sunne entreth the ſigne *Aries*. And by his ſaying, the yeare of that revolution was by him ſhewed, when *P. Licinius* and *M. Cornelius* were Conſuls. *Cornelius Valerianus* writeth, That whiles *Q. Plautius* and *Sex. Papinius* were Conſuls, the Phœnix flew into Ægypt. Brought he was hither alſo to Rome in the time that *Claudius Cæſar* was Cenſor, to wit, in the eight hundred yeare from the foundation of Rome: and ſhewed openly to bee ſeene in a full hall and generall aſſembly of the people, as appeareth upon the publicke records: howbeit, no man ever made any doubt, but he was a counterfeit Phœnix, and no better.

B C D

Chap. iii.

Of Ægles.

OF all the birds which we know, the Ægles carie the price both for honour and ſtrength. Six kinds there be of them. The firſt, named of the Greekes **Melænaetos*, and in Latine, *Valeria*: the leaſt it is of all others, and ſtrongeſt withall, blacke alſo of colour: In all the whole race of the Ægles, ſhe alone nouriſheth her young birds: for the reſt (as wee ſhall hereafter declare) doe beat them away: ſhe onely crieth not, nor keepeth a grumbling and huzzing as others doe: and evermore converſeth upon the mountaines. Of the ſecond ſort is **Pygargus*. It keepeth about townes and plaines, and hath a whitiſh taile. The third is *Morphnos*, which *Homer* calleth alſo *Percnos*: ſome name it *Plancus* and **Anataria*: and ſhe is for bigneſſe and ſtrength, of a ſecond degree: loving to live about lakes and meeres. Ladie *Phæmonæ*, who was ſuppoſed & ſaid to be the daughter of *Apollo*, hath reported, that this Ægle is toothed: otherwiſe mute, as not having any tongue: alſo, that of all others ſhe is the blackeſt, and hath the longeſt taile. With her accordeth *Boethus* likewiſe. Subtile ſhee is and wittie: for when ſhee hath ſeazed upon Tortoiſes, and caught them up with her tallons, ſhe throweth them downe from aloft to breake their ſhels. And it was the fortune of the Poët *Æſchylus* to die by ſuch a meanes. For when hee was foretold by wiſards out of their learning, that it was his deſtinie to die upon ſuch a day by ſome thing falling upon his head: hee thinking to prevent that, got him forth that day into a great open plaine, far from houſe or tree, preſuming upon the ſecuritie of the cleare and open skie. Howbeit, an Ægle let fall a Tortoiſe, which light upon his head, daſht out his braines, and laid him aſleepe for ever.

* The Saker as ſome thinke.

* A kind of Faulcon.

* For killing of duckes and mallards.

E F

Of

*The mountaine Storke.

Of the fourth kind is *Percnopterus*, the same that **Oripelargus*, fashioned like to a Geire or Vulture: it hath least wings, a bodie bigger than the rest: but a very coward, fearefull and of a bastard and craven kind, for a raven will beat her. Besides, she hath a greedie and hungrie worm alwaies in her gorge and craw, and never is content, but whining and grumbling. Of all Ægles she onely carieth away with her the dead prey, & feedeth thereupon in the aire: whereas others have no sooner killed, but they prey over them in the place. This bastard buzzard kind maketh that the fifth, (which is the roiall Ægle) & is called in Greek *Gnesios*, as one would say, true and kindly, as descended from the gentle and right airie of Ægles. This Ægle roiall, is of a middle bignesse, and of a reddish colour, a rare bird to bee seene. There remaineth now the sixt and last sort, and

*Some take it for the Ospray.

that is **Haliartos*. This Ægle hath the quickest and cleerest eie of all others, soaring & mounting on high: when she spieth a fish in the sea, downe she comes with a power, plungeth into the water, and breaking the force thereof with her breast, quickly she catcheth up the fish, and is gone. That Ægle which wee named in the third place, haunteth lakes, fennes, and standing waters for to prey upon water-foule: who, to shift from her, are driven otherwhile to dive under the water: but she presseth so hard upon them, that they be wearied and astonied in the end, and then shee catcheth them up, and carieth them away. A worthie sport it is to see the manner of their skuffling: whiles the sillie river-bird maketh means to gaine the banke side for refuge, (especially if it be wel growne with thicke reeds) and the Ægle for her part drives her from thence with the clap and stroke of the wing: whiles, I say, as the Egle striketh, and therewith plungeth her selfe downe into the water, the poore foule that swimmeth underneath, seeing the shaddow of the Ægle hovering about the banke side, riseth up againe in another place, far ynough off from the Ægle, & where she imagined that she should be least looked for. Which is the cause that these wild-foule of the water, commonly swim in flockes. For when they are many together, they are not much troubled and annoied, by reason that with fluttering their pinnions, with dashing and flapping the water with their wings, they dazle the sight of their enemie. Oftentimes also the very Ægles, not able to weld the prey that they have seazed upon, are together with it drawne under the water, and so drowned. Now as touching the *Haliartos*, or the Osprey, she onely before that her little ones bee feathered, will beat and strike them with her wings, and thereby force them to looke full against the Sunne beames. Now, if shee see any one of them to winke, or their eies to water at the raies of the Sunne, shee turnes it with the head forward out of the nest, as a bastard and not right, nor none of hers: but bringeth up and cherisheth that, whose eie will abide the light of the Sunne as she looketh directly upon him. Moreover, these Orfraies or Ospreies are not thought to be a severall kind of Ægles by themselves, but to be mungrels, and engendred of divers sorts. And their young Ospraies bee counted a kind of Ossifragi: from them come the lesser Geires, they againe breed the greater, which engender not at all. Some reckon yet another kind of Ægle, which they call Barbatæ; and the Tuscanes, Ossifrage.

*The precious stone Ætites.

But of the six kinds before rehearsed; the three first, and the fift, have in their nest a stone found named *Ætites, which some call Gagates, and it is therein engendred. This stone is medicinable and singular good for many diseases: and if it bee put into the fire, it will never a whit consume. Now this stone (as they say) is also with child. For if a man shake it, he shall heare another to rattle and sound within, as it were in the bellie or wombe of it. But that vertue medicinable abovesaid, is not in these stones, if they be not stollen out of the very nest from the airie. Build they doe and make their nests upon rockes and trees. Three egs commonly they lay: whereof two onely they use to hatch: howbeit, sometimes they have been seene to have three young ones. But lightly one of them they turne out of the nest, because they would not bee troubled with feeding and nourishing it. And verily, Nature hath well provided, that at such a time the old Ægles should not be able to purvey sufficient for meat: for otherwise, if they should reare their birds, they were ynough to destroy the young breed of deere and wild beasts in a whole countrey, that there should be no venison nor game at all for gentlemen. Moreover, by the same providence of Nature, all that while their tallons or clees hooke and turne inward very much: also for very hunger their feathers waxe grey and white, so as they have good cause not to abide their young. But when they have cast them off, the Ossifrages which are neere of kin unto them, are readie to take them and bring them up with their owne birds. But the old Ægles their dammes, not content therewith, persecute them still when they are growne to bee big ones, beating and chasing them away farre off, as their very concurrents, and who would entercommune with them, and rob them of

their

A their prey. And were it not ſo, certainely one airie of Ægles needeth the reach of a whole countrey to furniſh them with veniſon ſufficient to their full. They have therefore their ſeverall coaſts and walkes, and without thoſe limits and uſuall haunts they raven not. When they have ſeazed of any prey, they carie it not away preſently, but firſt lay it downe, peruſe and peiſe the weight thereof, and then away they flie with it amaine, but not before. They die not for age, nor upon any ſickneſſe, but of very famine, by reaſon that the upper beake of their bill is ſo farre overgrowne, and turneth inward ſo much, that they are not able to open it for to feed themſelves. Their manner is ordinarily to go to their buſineſſe (namely, to flie and ſeek their prey) after noon. For all the forenoone they are perched up, and be idle and doe nothing, waiting the time when men be not ſtirring abroad, but about their markets within the citties and townes, or otherwiſe buſie in their civile affaires. The quils or feathers of Ægles laid among thoſe of other foules, will devour and
B conſume them. Men ſay, that of all flying foules the Ægle onely is not ſmitten nor killed with lightening: whereupon folke are wont to ſay, that ſhe ſerveth *Iupiter* in place of his ſquire or armour-bearer.

Chap. iiii.

When the Ægles began to be the enſignes and ſtandards of Romane legions: and what foules they be that war with Ægles.

Caius Marius in his ſecond Conſulſhip ordained, that the Legions of Romane ſouldiors
C onely, ſhould have the Ægle for their ſtandard, and no other enſigne. For before time the Ægle marched formoſt indeed, but in a ranke of foure others, to wit, of *Wolves, Minotaures, Horſes, and Bores, which were borne each one before their owne ſeverall ſquadrons and companies. Not many yeaares paſt, the ſtandard of the Ægle alone began to be advaunced into the field to battell: and the reſt of the enſignes were left behind in the campe. But *Marius* rejected them altogether, and had no uſe of them at all. And ever ſince this is obſerved ordinarily, that there was no ſtanding campe or leaguer wintered at any time, without a paire of Ægle ſtandards. *Names of Enſignes.

Of Ægles, the firſt and ſecond kind prey not onely upon the leſſe foure footed beaſts, but alſo maintaine battell with the red Deere, even the Stag and the Hind. The manner of the Ægle is, after ſhe hath wallowed in the duſt and gathered a deale thereof among her feathers, to ſettle
D upon the hornes of the Deere beforeſaid, to ſhake the ſame off into his eies, to flap and beat him about the face with his wings, untill ſhe drive him among the rockes, and there force him to fall downe from thence headlong, and ſo to breake his necke. Moreover, the Ægle hath not ynough of this one enemie, but ſhe muſt warre with the Dragon alſo: howbeit, the fight betweene them is more ſharpe and eager: yea, and putteth her to much more daunger, albeit otherwhiles they combate in the aire. The Dragon of a naturall ſpight and greedie deſire to doe miſcheefe to the Ægle, watcheth evermore where the airie is, for to deſtroy the egges, and ſo the race of the Ægles. The Ægle againe, whereſoever ſhe can ſet an eie upon him, catcheth him up and carieth him away: but the ſerpent with his taile windeth about his wings, and ſo entangleth and tieth them faſt, that downe they fall both of them together.

E

Chap. v.

A ſtrange and wonderfull accident of an Ægle.

THere happened a marvellous example about the citie Seſtos, of an Ægle: for which in thoſe parts there goeth a great name of an Ægle, and highly is ſhe honored there. A young maiden had brought up a young Ægle by hand: the Ægle againe to requite her kindneſſe, would firſt when ſhe was but little, flie abroad a birding, and ever bring part of that ſhee had gotten unto her ſaid nurſe. In proceſſe of time, being growne bigger and ſtronger, would ſet upon wild beaſts alſo in the forreſt, and furniſh her yong miſtreſſe continually with ſtore of veniſon. At
F length it fortuned that the damoſell died: and when her funerall fire was ſet a burning, the Ægle flew into the mids of it, and there was conſumed into aſhes with the corps of the ſaid virgine. For which cauſe, and in memoriall hereof, the inhabitants of Seſtos, and the parts there adjoining, erected in that very place a ſtately monument, ſuch as they call Heroüm, dedicated in the name of *Iupiter* and the virgin, for that the Ægle is a bird conſecrated unto that god.

Chap.

Chap. vi.

Of Vultures, or Geires.

THe blacke Vultures are the beſt of that kind. No man ever could meet with their neſts: whereupon ſome have thought (but untruly) that they flie unto us out of another world, even from the Antipodes, who are oppoſite unto us. But the truth is, they build in the higheſt rockes that they can find: and their young ones have many times been ſeene, two togither and no more. *Vmbricius*, who was counted the moſt skilfull Aruſpex of our age, ſaith, That uſually they lay three egges; whereof they take one of them to ſacre and bleſſe (as it were) the other egges and the neſt: and then ſoone after they caſt it away. Alſo that the manner of the Geires is to fore-ſee a carnage, and to flie two or three dayes before unto the place where there will be any carions or dead carkaſſes.

Chap. vii.

Of the Sangualis, and Immuſsulus.

AS touching the Sangualis and the Immuſſulus, our Augurs at Rome are in a great doubt and make much queſtion, what they ſhould be. Some are of opinion, that the Immuſſulus is the chicke of the Vulture: and the Sangualis, likewiſe the young Oſſifraga. *Maſſurius* ſaith, that the Sangualis and Oſſifraga be both one: and as for the Immuſſulus, it is the young bird of the Ægle, before it come to have a white taile. Some have affirmed confidently, that after the death of *Mutius* the Augure, there was never any of them ſeene at Rome: but I rather am of this mind (and me thinks it ſoundeth more like a truth, ſuch is the ſupine negligence and careleſneſſe of men in all things elſe) that no marveile it is if they know them not, although they ſee them.

Chap. viii.

Of Hawkes.

WEe find in Faulconrie, ſixteen kinds of Hawkes or foules that prey. Of which, the Circos (which is lame and limpeth of one legge) was held in auncient time for the luckieſt Augurie, in caſe of weddings, and of cattell. Alſo the Hawke called Triorches (of three ſtones or cullions that it hath) is reputed a bird of good preſage: and in Augurie, lady *Phemonoe* hath given unto it the honour of the beſt ſimply and moſt fortunate. The Romanes call it Buteo, *i.* a Buzzard. And there is a worſhipfull houſe & familie in Rome of that ſurname; by occaſion that a Buzzard ſetled and perched upon the Admirall ſhip where *Fabius* himſelfe (one of that houſe) was, preſaging a boon-voyage and happie ſucceſſe, according as it fell out indeed. As for the Hawke which the Greekes name Æſalo, *i.* the Merlin, ſhee alone is ever ſeene at all times of the yeere: whereas the reſt are gone when winter commeth. In generall, Hawkes are divided into ſundrie and diſtinct kinds, by their greedineſſe more or leſſe, and their manner in chaſe and preying: for ſome there be that never ſeize on a foule but upon the ground: others againe never aſſaile any birds, but when they ſpie them flying about ſome tree. There be alſo, that take a bird perched and ſitting on high: and yee ſhall have of them, that overtake them as they flie in the wide and open aire. The doves therefore and pigeons, knowing the daunger of flying aloft, ſo ſoone as they eſpie them, either light upon the ground and ſettle, or elſe flie neere the earth; and thus helpe themſelves in taking a contrarie courſe to the hawkes nature, for to avoid their talons. There is in the Ocean of Affricke an Iland called Cerne, wherein all the hawks of the coaſts of the Maſſeſyli, build upon the very ground, and there breed: and being ſo accuſtomed to thoſe countries, ye ſhall not find an airie of them elſewhere. In a part of Thracia, ſomwhat higher in the countrey beyond Amphipolis, men and hawkes joine in fellowſhip and catch birds togither: for the men drive the woods, beat the buſhes and reeds to ſpring the foule; then the hawkes flying over their heads, ſeize upon them, and either ſtrike or bear them to the ground fit for their hands. On the other ſide, the hawkers and foulers when they have caught the foule, divide the bootie with the hawkes: and by report, they let ſuch birds flie againe at libertie aloft

into

into the aire, and then are the hawkes readie to catch them for themſelves. Moreover, when the time is of hawking, they will by their manner of crie and flying together, give ſigne to the faulconers that there is good game abroad, and ſo draw them forth to hawking for to take the opportunitie. It is ſaid, that the wolves doe the like, about the lake Mœotis: for unleſſe they may have their part with the fiſhers, they will rend and teare their nets, when they find them ſtretched forth. Faulcons or Hawkes willingly eat not the heart of any bird. There is an hawke called Cymindis, which preyeth in the night: ſildome is ſhe ſeene in the woods, and by day-light ſeeth little or nothing. There is deadly warre betweene it and the Ægle; and oftentimes they be both taken, entangled one with the other.

Chap. IX.

Of the Cuckow, which uſually is killed by birds of her owne kind.

AS touching the Cuckow, it ſeemeth that he commeth of ſome hawke chaunged into his ſhape at one certaine time of the yeere: for then thoſe other hawkes are not to be ſeene, unleſſe ſome very few daies. Hee ſheweth himſelfe alſo but for a ſmall ſeaſon in ſummer time, and afterwards appeareth no more. It is the only hawke that hath no talons hooked downward, neither is he headed as other hawkes, nor like unto them, but in colour: and for bill, he reſembleth rather the dove. Nay more than that, the hawke will prey upon him and devour him, if haply they be ſeene both togither: and it is the onely bird of all other that is killed by thoſe of the owne kind. He altereth his voice alſo. In the ſpring, he commeth abroad, and by the beginning of the dog-daies, hideth himſelfe. Theſe lay alwaies in other birds neſts, and moſt of all in the Stock-doves, commonly one egge and no more (which no other bird doth beſides) and ſeldome twaine. The reaſon why they would have other birds to ſit upon their egges and hatch them, is becauſe they know how all birds hate them: for even the verie little birds are readie to warre with them: for feare therefore that the whole race of them ſhould be utterly deſtroyed by the furie of others of the ſame kind, they make no neſt of their owne (being otherwiſe timorous and fearfull naturally of themſelves) and ſo are forced by this craftie ſhift to avoid the daunger. The Titling therefore that ſitteth, being thus deceived, hatcheth the egge and bringeth up the chicke of another bird. And this young Cuckow beeing greedie by kind, beguiling the other young birds and intercepting the meat from them, groweth hereby fat and faire-liking: whereby it commeth into ſpeciall grace and favor with the dam of the reſt, and nource to it. She joieth to ſee ſo goodly a bird toward: and wonders at her ſelfe that ſhe hath hatched and reared ſo trim a chicke. The reſt, which are her owne indeed, ſhee ſets no ſtore by, as if they were changelings: but in regard of that one, counteth them all baſtards and misbegotten: yea, and ſuffereth them to be eaten and devoured of the other even before her face: and this ſhe doth ſo long, untill the young cuckow being once fledge and readie to flie abroad, is ſo bold as to ſeize upon the old Titling, and to eat her up that hatched her. And by that time there is not another bird againe for goodneſſe and ſweetneſſe of meat, comparable to the young Cuckow.

Chap. X.

Of Gleedes, Kites, or Puttocks.

THe Kites or Gleeds are of the ſame kind of Hawkes or birds of prey, onely they bee greater. This hath been noted & obſerved in them: that being a moſt ravenous bird, and evermore hungrie, yet were they never knowne to ſnatch any viands ordained at funerall feaſts for the dead, out of the platters; ne yet the fleſh of beaſts ſlaine in ſacrifice, from off the altar of *Iupiter* in Olympia. Nay, it was never ſeene that a Puttocke would catch fleſh out of their hands that ſerved at ſuch feaſts: but if it did, a great preſage it was of ſome doleful & heavie misfortune which ſhould fall upon the whole towne, that made theſe ſolemn ſacrifices. Theſe Gleeds or Puttocks, ſeeme by the winding and turning of their tailes to & fro as they flie, to have taught pilots the skil of ſteering, and the uſe of the helme. See how Nature hath ſhewed that in the aire above, which is ſo neceſſary in the deep ſea beneath! Kites likewiſe are not commonly ſeen abroad in the dead time of winter: yet go they not away for all together before the Swallowes. Moreover, it is ſaid, that after the Sunſteeds, alwaies in ſummer time, they be trobled with the gout in their feet.

Chap.

Chap. xi.

❧ *A generall division of Foules.*

THe first and principall difference and distinction in birds, is taken from their feet: for they have either hooked tallons, as Hawkes; or round long clawes, as Hennes; or else they be broad, flat, and whole-footed, as Geese and all the sort in manner of water-foule. Those that have hooked tallons, for the most part feed upon flesh and nothing else.

Chap. xii.

❧ *Of unluckie birds, and namely, the Crow, Raven, and Scritch-owle.*

THe Crow liveth not altogither of carion, for the Rooke eateth of other food. The Crowes and Rookes have a cast by themselves: for when they meet with a hard nut which they are not able to cracke, nor breake their shales with their bills, they will flie aloft and fling it against some rock or tyle-house once or twice, yea & many times togither, untill it be so crushed and bruised, that they may easily breake it quite, and then they eat up the kernell. These birds all of them keepe much pratling and are full of chat; which most men take for an unluckie signe and presage of ill fortune: although some there be who thinke otherwise, that it is a good bird, and highly esteeme of her. Observed it is, that from the going down or occultation of the starre Arcturus, unto the comming of the Swallow, the Crow is not to be seene else-where but about the groves and temples of *Minerva* (and that is but very sildome) and namely, neere to Athens. Moreover, this bird only feedeth her young cadowes for a good while after they are able to flie. Shee is most unluckie at breeding time and cooving, that is to say, after the Sunsteed in summer. All other birds, which be as it were of the same race, drive their young ones out of the nest when they be once fledge, and put them to it, forcing them to flie abroad: like as the Ravens also, who likewise feeed not on flesh only: and they likewise when they perceive their young once to be strong, chase and drive them away farre off. Therefore about little villages and hamlets, there commonly be not above two paire of them at once. And about Cranon verily in Thessalie, yee shall never see above one paire of them: for the old ones give place unto the yong, and fly away. There are some divers and different properties in this bird, and that before-named: for the Ravens engender before the Sunsteed, and for sixtie daies are somwhat ill at ease, and troubled with a kind of drought or thirstines especially, untill such time as the figges be ripe in Autumne: and then from that time forward, the Crow beginneth to be diseased and sick. Ravens for the most part lay five egges: and the common sort are of opinion, that they conceive and engender at the bill, or lay their egges by it: and therefore if women great with child chaunce to eat a Ravens egge, they shall be delivered of their children at the mouth: and generally shall have hard labour, if such an egge be but brought into the house where such great bellied women be. *Aristotle* denieth this and saith, that the Ravens conceive by the mouth, no more than the Ægyptian Ibis: and he affirmeth, that it is nothing else but a wantonnesse which they have in billing and kissing one another, which we see them to doe oftentimes; like as the Dawes and Pigeons also. The Ravens of all other foules, seeme to have a knowledge of their owne significations in presages and fore-tokens: for when the mercenarie hired souldiers of Media were all massacred under a colour of entertaintment and hospitalitie, the Ravens flew all away out of Peloponnesus and the region of Attica. The worst token of ill luck that they give, is when in their crying they seeme to swallow in their voice as though they were choked.

The night-birds have also crooked tallons, as the Owles, Scritch-owle, and Howlets. All these see but badly in the day time. The Scritch-owle betokeneth alwaies some heavie newes, and is most execrable and accursed, and namely, in the presages of publicke affaires: he keepeth ever in deserts: and loveth not onely such unpeopled places, but also that are horrible and hard of access. In summe, he is the verie monster of the night, neither crying nor singing out cleere, but uttering a certaine heavie grone of dolefull moning. And therefore if he be seene to flie either within citties, or otherwise abroad in any place, it is not for good, but prognosticateth some fearfull misfortune. Howbeit I my selfe know, that hee hath sitten upon many houses of privat men,

and

A and yet no deadly accident followed thereupon. He never flieth directly at eaſe, as he would himſelfe, but evermore ſidelong and byas, as if he were carried away with the wind or ſomewhat elſe. There fortuned one of them to enter the very ſecret ſanctuarie within the Capitoll at Rome, in that yeere when as *Sext. Papellio Iſter* and *L. Pedanius* were Conſuls: whereupon at the Nones of March, the citie of Rome that yeere made generall proceſſions to appeaſe the wrath of the gods, and was ſolemnly purged by ſacrifices.

Chap. XIII.

Of the bird Incendiaria.

B THis fire-bird Incendiaria is likewiſe unluckie, and as our Chronicles and Annales do witneſſe, in regard of her the citie of Rome many a time hath made ſolemne ſupplications to pacifie the gods, and to avert their diſpleaſure, by her portended: as for example, when *L. Caſſius* and *C. Marius* were Conſuls: in that very yeere when by occaſion of a Scrith-owle ſeene, the citie likewiſe was purged by ſacrifice, as is aboveſaid, and the people fell to their prayers and devotions. But what bird this ſhould be, neither doe I know, nor yet find in any writer. Some give this interpretation of Incendiaria, to be any bird whatſoever, which hath been ſeene carrying fire either from altar or chappell of the gods. Others call this bird Spinturnix. But hitherto I have not met with the man who would ſay directly unto me, That he knew what bird this ſhould be.

Chap. XIIII.

C

Of the bird Clivina, or Cluina.

LIkewiſe the bird named in old time Clivina, or Cluina, which ſome call Clamatoria, and which *Labeo* deſcribeth by the name of Prohibitoria, I ſee is as little knowne as the other. *Nigidius* alſo maketh mention of a bird called Subis, which uſeth to ſquaſh Ægles egges.

Chap. XV.

D

Of other unknowne birds.

IN the Augures bookes which the Tuſcanes have compoſed, there be many birds deſcribed and ſet out in their colours, which have not been ſeene ſome hundreds of yeeres paſt. And I muſe and marvaile much, that they ſhould be now extinct and the race of them cleane gone, conſidering that the kind of thoſe foules is not loſt, but continueth ſtill in great abundance, which men eat daily at their tables, and conſume ſo ordinarily.

Chap. XVI.

Of night flying birds.

OF ſtraungers and forrein writers, *Hylas* is thought to have written beſt and moſt learnedly as touching Auguries and the nature of Birds. He reporteth in his booke, that the Howlet, Scritch-owle, the Spight that pecketh holes in trees, the Trogone, and the Chough or Crow, when they be hatched come forth of their ſhells with their tailes firſt: and that by reaſon of their heads ſo heavie, the egges are turned with the wrong end downward, and ſo the hinder part of the bodie lieth next under the hen or the dam, to ſit upon and cheriſh with the heat of her bodie.

Chap. XVII.

Of Owles, or Howlets.

IT is a pretie ſight to ſee the wit and dexteritie of theſe Howlets, when they fight with other birds: for when they are overlaid and beſet with a multitude of them, they lie upon their backs and with their feet make ſhift to reſiſt them: for gathering themſelves into a narrow compaſſe, there is nothing in a manner to be ſeene of them, ſave only their bill and talons, and thoſe cover the whole bodie. The Faulcon (by a ſecret inſtinct and ſocietie of nature) ſeeing the poor Howlet thus diſtreſſed, commeth to ſuccour and taketh equall part with him, and ſo endeth the

fray. *Nigidius* writeth, that Howlets for ſixtie daies in wintet, keepe cloſe and remaine in covert, C and that they chaunge their voice into nine tunes.

Chap. xviii.

☞ *Of the Spight, or Woodpecker.*

SOme little birds there are alſo that have hooked clees, as the Spights, which are knowne by the name of Martins, and be therefore called Pici Martij. Theſe are of great account in Auſpices, and preſage good. They that job and pecke holes in trees, and will climbe upright like cats, are of this race. As for them, they will rampe up with their bellies to the tree, bending backward: and when they peck with their bills againſt the barke, they know by the ſound therof I that there be wormes within for them to feed upon. Theſe birds alone of all others feed and nouriſh their young ones in cranies and chinkes of trees. And if it chance that a ſhepheard or ſome ſuch doe pin or wedge up their holes, it is thought commonly that they will unſtop the ſame againe by the meanes of a certaine hearb, which no ſooner they touch the ſtopple with, but it will out. *Trebius* writeth, that let a man drive a ſpike and great naile, or elſe a wedge and pin of wood, as hard as ever he will into that tree wherein this bird hath a neſt, and incontinently as ſhe percheth and ſetleth upon the tree, it will preſently flie out with ſuch a force, that the tree will give a cracke again therewith. Throughout all Latium, theſe birds beare the name for effectuall ſignification of good or bad fortune, by reaſon of that * King or Prince who gave them that name. And one preſage of theirs above the reſt, I cannot paſſe over: It fortuned that one of them light upon the head of *L. Tubero* L. chiefe Iuſtice of the citie of Rome, as he was ſitting upon the judgement ſeat in the open face of the court miniſtring juſtice, and there reſted ſo gently, that it ſuffered him to take it with his hand. The Soothſayer beeing asked his adviſe in this caſe, anſwered out of his booke, That if the bird were let goe, it would portend the ruine and overthrow of the whole ſtate and Empire; but if it were killed, it denounced the death of the foreſaid Pretour or L. chiefe Iuſtice then in place. But the Pretour *Tubero* immediatly upon this anſwer, plucked the bird in peeces. It was not long after, but the preſage of this bird took effect indeed, and was fulfilled in his perſon. Moreover, there be of this kind many that feed upon maſt, acorns, nuts, apples, and ſuch like fruits: but they be ſuch as live in manner upon fleſh onely. And yet I muſt except the Kite, for that propertie in him, is noted to be in all Augurie an unluckie ſigne and preſage of ſome heavie and deadly misfortune. K

* *i. Picus.*

Chap. xix.

☞ *Of birds that have hooked talons, and round long clawes like fingers.*

WHat foules ſoever have crooked clawes, ſort not together in flockes, but prey ech one apart for it ſelfe. And lightly all ſuch flie aloft, unleſſe it be the night-birds beforeſaid; and the greater ſort eſpecially. They are all of them great winged, little bodied, and heavie in their gate upon the ground. Seldome or never they ſit and perch upon a rock: for why? their nailes bowing and hooking inward, will not give them leave. It remaineth now that we ſpeak of the ſecond kind and rankes of birds; which alſo is divided into two ſorts: to wit, Oſcines that ſing, and Alites that flie onely. For the ſinging of the one, and the bignes of the other, maketh the difference and diſtinction betweene them. Theſe therefore that are greater bodied, wee will by order treat firſt of.

Chap. xx.

☞ *Of Peacockes: and who was the firſt that killed them for the table.*

THe Peacocke farre ſurpaſſeth all the reſt in this kind, as well for beautie, as alſo for the wit and underſtanding that he hath; but principally for the pride and glorie that hee taketh in M himſelfe. For perceiving at any time that he is praiſed and well liked, he ſpreadeth his taile round, ſhewing and ſetting out his colours to the moſt, which ſhine againe like precious ſtones: and namely, when he turneth them againſt the ſunne (as his manner is) for ſo hee giveth them a more radiant and glittering luſtre. And for the ſame purpoſe alſo with his taile, repreſenting fiſh ſhells,

A ſhells, hee giveth a certaine ſhadow to the reſt of his feathers, which ſeeme the brighter when they be a little ſhadowed: and withall he ſetteth all thoſe eyes of his feathers togither in a ranke, and gathereth them round, knowing full well, that he is the more looked on for them; and therin he taketh no ſmall joy and pleaſure. On the other ſide, when he hath loſt this taile (which uſually he moulteth everie yeere when trees ſhed their leaves) untill ſuch time that trees bloſſome new and his taile be growne againe, he hath no delight to come abroad, but as if hee were aſhamed or mourned, ſeeketh corners to hide himſelfe in. The Peacocke ordinarily liveth 25 yeeres. At three yeers of age he beginneth to put forth that varietie of colours in his feathers. Authors who have written of him, ſay that he is not onely a proud and vainglorious creature, but alſo as ma-1 licious and ſpightfull, as the Gooſe is baſhfull and modeſt: for ſo have ſome of them obſerved 2
B theſe properties and qualities in theſe birds. But I for my part like not to make ſuch ſimilitudes.

The firſt that killed Peacockes for to be ſerved up as a diſh at the table, was *Hortenſius* that great Oratour, in his ſolemne feaſt which he made when he was conſecrated high Prieſt. And *M. Auſidius Lurco* deviſed firſt to feed them fat: by which invention of his, he might diſpend by yeerely revenue * 60000 Seſterces. And this was about the time of the laſt Pirats warre. * 468 lib. 15 ſh.

Chap. xxi.

Of Cocks: how they be cut and made Capons. Alſo of a dunghill-cock that ſpake.

C NExt to Peacocks, theſe birds about our houſe which are our ſentinels by night, and whom Nature hath created to breake men of their ſleepe, to awaken and call them up to their worke, have alſo a ſenſe and underſtanding of glorie: they love (I ſay) to be praiſed, and are proud in their kind. Moreover, they are Aſtronomers, and know the courſe of the ſtarres: they devide the day by their crowing, from three houres to three houres: when the ſunne goeth to reſt, they go to rooſt: and like ſentinels that keepe the reliefe of the fourth watch in the camp, they call men up to their carefull labour and travaile: they will not ſuffer the ſunne to riſe and ſteale upon us, but they give us warning beforehand: by their crowing, they tell us that the day is comming: and they foretell their crowing likewiſe, by clapping their ſides with their wings. They are commaunders and rulers of their owne kind, be they Hens, or other Cocks; and in what houſe ſoever they be, they will be maſters and kings over them. This ſoveraigntie is gotten
D by plaine fight one with another; as if they knew, that naturally they had ſpurs (as weapons) given them about their heeles, to trie the quarrell: and many times the combat is ſo ſharpe and hot, that they kill one another ere they give over. But if one of them happen to be conqueror, preſently upon victorie hee croweth, and himſelfe ſoundeth the triumph. Hee that is beaten, makes no words, nor croweth at all, but hideth his head in ſilence; and yet nevertheles it goeth againſt his ſtomack to yeeld the gantlet and give the bucklers: hardly can he brook to be under another. And not only theſe cocks of game, but the very common ſort of the dunghill, are as proud and high minded: ye ſhall ſee them to march ſtately, carrying their neck bolt upright, with a combe on their head like the creſt of a ſouldiers helmet. And there is not a bird beſides himſelfe, that ſo often looketh aloft to the ſun and the skie: and then up goeth the taile withall, which he beareth
E on high, turning backward again on the top like a hook. And hereupon it is, that marching thus proudly as they doe, the very Lions (which of all wild beaſts be moſt courageous) ſtand in feare and awe of them, and will not abide the ſight of them.

Now of theſe Cocks, ſome of them are made for nothing els but war and fighting, and never are they well but in quarrels, brawls, and fraies; and theſe be cocks of the kind: and the countries from whence they come, are grown into name and be much renowmed for their breed: as namely, Rhodus and Tenagra, in the firſt and higheſt degree. In a ſecond ranke and place, be thoſe of Melos and Chalcis. Vnto theſe birds (for their worth and dignitie) the purple robe at Rome, and all magiſtrates of ſtate, diſdaine not to give honour. Theſe be they that by their *tripudium ſoliſtimum*, [*i.* their heartie feeding] obſerved by the pullitiers, ſhew good ſucceſſe. Theſe rule our
F great rulers every day: and there is not a mightie L. & ſtate of Rome, that dare open or ſhut the dore of his houſe, before he knoweth the good pleaſure of theſe fouls: and that which more is, the ſoveraigne magiſtrate in his majeſtie of the Romane Empire, with the regall enſigns of rods and axes caried before him, neither ſetteth forward nor reculeth backe, without direction from theſe birds: they give order to whole armies to advance forth to battell: they again command them to

ſtay and keepe within the campe. Theſe were they that gave the ſignall, and foretold the iſſue of all thoſe famous foughten fields, whereby wee have atchieved all our victories throughout the whole world: and in one word, theſe birds commaund thoſe great commaunders of all nations upon the earth: as acceptable to the gods in ſacrifice with their final fibres and filaments of their inwards, as the greateſt and fatteſt oxen that are killed for ſacrifice. Over and beſides, their crowing out of order, too ſoone before their houre, or too late, and namely in the evening, portendeth alſo and preſageth ſomewhat by it ſelfe. For well knowne it is, that by their crowing at one time all night long, they fore-ſignified unto the Bœotians, that noble victorie of theirs atchieved over the Lacedæmonians. For this interpretation and conjecture was given thereupon of a fortunate day, becauſe that bird never croweth if he be beaten and overcome. If they be once carved and made capons, they crow no more. And this feat is practiſed upon them two manner of waies: namely, either by burning their loynes toward their kidneys with a red hot yron, or elſe by cauterizing their legges beneath, and their ſpurres, and then preſently applying a plaiſter unto the exulcerate and bliſtered place, made of potters white clay or chalkie earth. And beeing thus ſerved, they will ſooner feed and be fat. At Pergamus, everie yeere there is a ſolemne ſhew exhibited openly to the people, of Cock-fighting, as if ſword-fencers were brought within the liſts to fight at outterance. We find in record among our Annales, that within the territorie of Ariminum, in that yeare when *Marcus Lepidus* and *Quintus Catulus* were Conſuls, there was a dunghill-cocke did ſpeake: and it was about a ferme-houſe in the countrey belonging unto one *Galerius*. But this happened never but once, for ought that I could ever heare or learne.

Chap. xxii.

Of Geeſe: and who firſt eat the Gooſe liver. Alſo of the leaſe of a Gooſe of Comagena.

THe Gooſe likewiſe is very vigilant and watchfull. Witneſſe the Capitoll of Rome, which by the meanes of Geeſe was defended and ſaved: whereas at the ſame time, through the default of dogs, (who ſhould have given warning) all had like to have been loſt. And therfore the firſt thing that the Cenſors doe by vertue of their office, is to take order for the Geeſe of the Capitoll, and to appoint ſome one man of purpoſe to ſee unto them that they have meat ynough. Moreover, they are ſaid to be given much to love: For at Argos there was a Gooſe that was wonderouſly enamoured of a faire boy named *Olenus*: as alſo of a Damoſell, whoſe name was *Glauce*, who uſed to play on the Lute before king *Ptolomæus*: and by report at the ſame time a Ram made court unto the ſaid wench, and was in love with her. It may be credibly thought alſo, that this creature hath ſome ſparkes (as it were) of reaſon, underſtanding, and learning. For *Lacydes* the Philoſopher had one of them about him, which would never leave him night nor day, neither in the open ſtreet abroad, nor in private houſe at home: but would follow him even to his cloſe and ſecret baines where he uſed to bath. But our countrymen and citizens of Rome (beleeve me) are wiſer now adaies: who know forſooth how to make a daintie diſh of their liver. For in thoſe Geeſe that are kept up and crammed fat in coupe, the liver groweth to bee exceeding great: and when it is taken forth of the bellie, it waxeth bigger ſtill, if it be ſteeped in milke and ſweet mead together. Good cauſe therefore it is, that there be ſome queſtion and controverſie about the firſt inventor of this great good and ſingular commoditie to mankind: whether it were *Scipio Metellus*, a man who lately was called to be Conſull, or *M. Seſtius* who in thoſe daies was by his birth a gentleman of Rome. But to leave that ſtill undecided, this is for certaine knowne, that *Meſſalinus Cotta*, ſonne to that *Meſſala* the Orator, found out the ſecret to broile and frie the flat broad feet of geeſe, and together with cockes combes to make a ſavorie diſh of meat thereof betweene two platters. For ſurely I for my part will give every man his due and right: and will not defraud them of their ſingular praiſe and honour who have been benefactors to the kitchin, and proceeded maiſters in cookerie. A marvellous thing of theſe birds, that a flocke of them ſhould come all the way bare foot, from *Terwin and Torney in France as farre as to Rome. Their order was, who had the conduct of them in this large voiage, to bring thoſe forward that were wearie and lagged behind, into the vaward and forefront: and ſo the reſt by a certaine thick united ſquadron, (which naturally they make when they go together) drive the others before them. A ſecond

*Morini.

commo-

A commoditie that Geeſe yeeld, (eſpecially thoſe that be white) is their plume and downe. For in ſome places their ſoft feathers are pluckt twice a yeare: and yet they carie feathers again, and be
F as well covered with plume as before: and evermore the neerer to the skin and fleſh, the ſofter is the downe. But of all other, the fineſt and beſt is that which is brought out of Germanie. The Geeſe there, be all white; but leſſe of bodie than from other parts: and there they be called Ganzæ. And in truth, a pound of ſuch feathers bee worth *five deniers. Hereupon it is, that ſo many *3 ſh. i. d. ob.
complaints are made of Colonels and Captaines over companies of auxiliarie ſouldiours for their diſorders. For whereas they ſhould keepe them together in a ſtanding *corps de guard*, to watch and ward night and day: they licenſe many times whole bands to ſtraggle abroad, to hunt and chaſe Geeſe for their feathers and downe. And now forſooth the world is growne to be ſo de-
B 2 licate and daintie, that not onely our fine ſmooth dames, but alſo our men, cannot take their repoſe and ſleepe without this ware, but complaine of a paine in their neckes & heads, unleſſe they may lay them upon bolſters and pillowes of gooſe feathers, and their ſoft downe.

Now, to that part of Syria called Comagena, we are beholden for another proper invention of theirs. They take me the leafe and greaſe of Geeſe and Cinamon together, which they put into a brazen pot, and cover it all over with good ſtore of ſnow, wherein they let it lie in ſteepe, well infuſed in this cold humor, to uſe in that notable compoſition and ſweet ointment, which of that countrey is called Comagenum.

Of the Geeſe kind are the Birganders named Chelanopeces: and (than which there is not a daintier diſh knowne in England) the Chenerotes, leſſe than wild Geeſe.

C As for the Feſant Buſtards, they have a trim ſhining brightneſſe that becommeth and graceth them exceeding well in their perfect and abſolute blacke hew: and their eie-browes painted red as it were with deepe Scarlet.

Another kind there is of them, bigger than Vultures, but in feather and colour much reſembling them. And there is not a Foule (ſetting the Oſtrich aſide) that poiſeth and weigheth more heavie than they. For they grow to that bignes, that a man can hardly lift them from the ground. Theſe breed in the Alpes and the North countries. If they bee mued up and kept in a pen, they looſe their pleaſant taſt, and are no good meat: nay, they grow ſo ſullen and ſelfe-willed, that they will die with holding their breath. Next to theſe are thoſe which in Spaine they call the Slow-birds, and in Greece Otides: but their meat is naught: for the marrow within their bones, if it be
D let run out, hath ſuch a ſtinking ſmell, that a man cannot abide it, but ſhall be readie to vomite.

Chap. xxiii.

Of Cranes, Storkes, Swans, Quailes, the Glotis, and ſtrange birds of other countries.

THe nation of the pretie Pigmies enjoy a truce and ceſſation from armes, every yeare (as we have ſaid before) when the Cranes, who uſe to wage warre with them, be once departed and come into our countries. And verily, if a man conſider well how far it is from hence to the Levant ſea, it is a mightie great journey that they take, and their flight exceeding long. They put not themſelves in their journey, nor ſet forward without a counſell called before, and a generall conſent. They flie aloft, becauſe they would have a better proſpect to ſee before them: and for this purpoſe a captain they chuſe to conduct them, whom the reſt follow. In the rereward behind there be certaine of them ſet and diſpoſed to give ſignall by their manner of crie, for to raunge orderly in rankes, and keepe cloſe together in array: and this they doe by turnes each one in his courſe. They maintaine a ſet watch all the night long, and have their ſentinels. Theſe ſtand upon one foot, and hold a little ſtone within the other, which by falling from it, if they ſhould chaunce to ſleepe, might awaken them, and reprove them for their negligenve. Whiles theſe watch, all the reſt ſleepe, couching their heads under their wings: and one while they reſt upon the one foot, and otherwhiles they ſhift to the other. The captain beareth up his head aloft into the aire, and giveth ſignall to the reſt what is to be done. Theſe Cranes if they be made tame and gentle, are very playfull and wanton birds: and they will one by one dance (as it were) and run the round with their long ſhankes ſtaulking full untowardly. This is for certain known, that when they mind to take a flight over the ſea Pontus, they will flie directly at the firſt to the narrow ſtreights of the ſaid ſea, lying betweene the two capes Criu-Metophon and Carambis, and then preſently they

ballaiſe themſelves with ſtones in their feet, and ſand in their throats, that they flie more ſteadie and endure the wind. When they be halfe way over, down they fling thoſe ſtones: but when they are come to the continent, the ſand alſo they diſgorge out of their craw.

Cornelius Nepos, who died in the daies of *Auguſtus Cæſar* Emperour, in that chapter where he wrote, That a little before his time men began to feed and cram Blackbirds and Thruſhes in coupes, ſaith moreover, That in his daies Storkes were holden for a better diſh at the bourd than Cranes. And yet ſee, how in our age now, no man will touch a Storke if it bee ſet before him upon the bourd: but every one is readie to reach unto the Crane, and no diſh is in more requeſt. From whence theſe Storkes ſhould come, or whether they goe againe, is not yet knowne. No doubt, from farre remote countries they viſite us, and in the ſame manner as the Cranes do: only this is the difference, that the Cranes are our gueſts in Winter, and the Storkes in Summer. When they bee minded to depart out of our coaſts, they aſſemble all together in one certaine place appointed: there is not one left out nor abſent of their owne kind, unleſſe it bee ſome that are not at libertie, but captive or in bondage. Thus (as if it had been publiſhed before by proclamation) they riſe all in one entire companie, and away they flie. And albeit well knowne it might be afore, that they were upon their remove and departure, yet was there never any man (watched he never ſo well) that could perceive them in their flight: neither doe wee at any time ſee when they are comming to us, before wee know that they bee alreadie come. The reaſon is, becauſe they doe the one and the other alwaies by night. And notwithſtanding that they flie too and fro from place to place, and make but one flight of it, yet are they ſuppoſed never to have arrived at any coaſt but in the night. There is a place in the open plaines and champion countrey of Aſia, called Pithonos-Come: where (by report) they aſſemble all together, and being met, keepe a jangling one with another: but in the end, looke which of them lagged behind and came tardie, him they teare in peeces, and then they depart. This alſo hath been noted, that after the Ides of Auguſt they be not lightly ſeene there.

Some affirme conſtantly, that Storkes have no tongues. But ſo highly regarded they are for ſlaying of Serpents, that in Theſſalie it is accounted a capitall crime to kill a Storke, and by law he is puniſhed as a Fellon in the caſe of manſlaughter.

After the ſame manner wild Geeſe and Swans do ſort together, when they be paſſengers from countrey to countrey: but all theſe are ſeene when they flie. They make way forcibly in a pointed ſquadron, like as it were the ſtemme of a foiſt at ſea, armed with a ſharpe beakehead (for by this meanes they breake and cut the aire better, than if they drave it before with a ſtreight, even, and ſquare front.) And thus wedge-wiſe by little and little they ſpread broader and broader behind, and beare a great length beſides with them: by which meanes alſo they gather more wind to heave them up and ſet them forward. In this their flight they reſt their heads upon the former: and ever as any one that leadeth the way is wearie with bearing his head, hee retireth behind to eaſe himſelfe upon him that flieth next before. Storkes keepe one neſt ſtill from yeare to yeare, and never chaunge: and of this kind nature they are, that the young will keepe and feed their parents when they be old, as they themſelves were by them nouriſhed in the beginning.

Some ſay that the Swans ſing lamentably a little before their death, but untruly, I ſuppoſe: for experience in many hath ſhewed the contrarie. Howbeit, theſe foules uſe to eat and devour one another.

But ſince wee are entred into this diſcourſe of thoſe foules that make voiages by whole flocks over ſea and land to ſee ſtraunge countries, I cannot put off to ſpeake of leſſer birds alſo, which are of the like nature. For thoſe beforenamed may ſeeme in ſome ſort to bee induced to ſuch great travell, ſo big they are of bodie, and ſo ſtrong withall. As touching Quailes therefore, they alwaies come before the Cranes depart. A little bird it is, and whiles ſhe is among us here, mounteth not aloft in the aire, but rather flieth below neere the ground. The manner of their flying is like the former, in troupes: but not without ſome daunger of the ſailers when they approch neer to land. For oftentimes they ſettle in great number upon their ſailes, and there perch; which they doe evermore in the night, and with their poiſe beare downe barkes and ſmall veſſels, and finally ſinke them. Theſe Quailes have their ſet gifts, to wit, ordinarie reſting and baiting places. When the Southwind bloweth, they never flie: for why? it is a moiſt, heavie, and cloggie wind, and that they know well ynough. And yet they willingly chuſe a gale whenſoever they flie, by reaſon that their bodies are too weightie (in compariſon of their wings) to beare

them

A them up: and besides, their strength is but small. And hereupon it is, that as they flie, they seeme by their manner of crie to complaine, as though they flew with paine. Commonly therefore they chuse a Northerne wind to flie with: and they have one mightie great Quaile called Ortygometra, to lead the way and conduct them, as their captaine. The formost of them, as hee approcheth neere to land, paieth toll for the rest unto the hawke, who presently for his welcome preieth upon him. Whensoever at any time they are upon their remoove and departure out of these parts, they persuade other birds to beare them companie: and by their inducements, there goe in their traine the Glottis, *Otis, and the Cychramus. As for the Glottis, he putteth forth a long tongue, whereupon he hath that name. This bird is very forward at the first setting out (as being desirous to be a traveller, to see farre countries, and to change the aire:) and the first daies
B journey he undertaketh with pleasure: but soone finding the tediousnesse and paines in flying, he repents that ever he enterprised the voiage. To go backe againe without companie, he is ashamed: and to come lag behind he is as loth: howbeit, for that day he holdeth out so so, and never goeth farther: for at the next resting place that they come unto, hee faire leaveth the companie and staieth there; where lightly he meeteth with such another as himselfe, who the yeare before was left behind. And thus they doe from time to time, yeere by yeere. As for the Cychramus, he is more staied and resolute to endure the travell: he maketh hast and hath an earnest longing to come into those parts which he so much desireth: and therfore in the night season he is as good as a trumpet to awake the rest, & put them in mind of their journey. The Otis is a bird lesse than the Like-Owle, bigger than the Howlet, having two plumed eares standing up aloft, whereupon
C he tooke that name Otis in Greeke. But in Latine some have called him Asio. This bird besides, hath certain qualities by her selfe, and is skilfull to counterfet and make gestures like a flattering parasite: she can foot it, turne and trip, mount and capre, as if she were a professed dauncer. Easie she is to bee taken like as the Howlet, for whiles she is amused and looking wistly upon one that goeth about her, another commeth behind and soone catcheth her. But to returne unto our Quailes aforesaid. If a contrarie wind should chaunce to arise and begin to drive against them, and hinder their flight: to prevent this inconvenience, they be well provided. For they flie well ballaised either with small weightie stones within their feet, or else with sand stuffed in their craw. The seed or graine of the white Elebore (a very poyson) they love passing well, and it is their best meat. But hereupon it is, that they are not served up as a dish to the table. Moreover, they are
D wont to fome and slaver at the mouth, by reason of the falling sickenesse, unto which they only of all other creatures, but man againe, are subject.

* The Bistard or Horn-owle.

Chap. xxiiii.

& Of Swallowes, Ousles or Merles, Thrushes, Stares or Sterlings, Turtles, and Stockdoves.

THe Swallows likewise (the birds alone of all those that have crooked claws, which feed upon flesh) are gone from us all Winter time. Howbeit, they depart not far off, but seeke onely the Sunne-shine nowkes, betweene hils neere at hand, and follow the warmth. Where many times they are found naked, and without feathers altogether, as if they had moulted. It is
E said, that they will never build their neasts under any house in Thebes: because that cittie had beene many times forced and taken by the enemie. Neither in Bizia, a cittie of Thrace, by reason of those detestable parts practised by *Tereus* there. *Cæcina* of Volaterræ, a gentleman of Rome by calling (Governour and maister of the coaches and coach-horses that used to run for the prise and best game) was woont to bring with him into the citie, a number of these Swallowes, which he had gotten in diverse places where hee came, out of his friends houses wherin they were bred. And when the horses which he had in charge obtained at any time victorie in the race, hee would take the birds, and paint them with that colour which betokened victorie, and so with that liverie (as it were) let them flie to his friends, for to carrie tidings unto them of
F the good successe which hee had obtained: knowing right well, that every one would home to the same neast from whence they came. And thus in small space could hee enforme his consorts and well-willers of his good speed. Also *Fabius Pictor* reporteth in his Annales, That when a fort (which the Romane garison held) was besieged by the Ligustines; there was a shee Swallow newly taken out of her neast within that fort, from her little ones as she sat over them, and

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brought unto him with this watch-word, That by a linnen thred tied to her foot in ſteed of a letter, hee ſhould advertiſe them within the fort, by ſo many knots tied in the ſaid thred, as there would daies paſſe before aid could come from him unto them, to the end that they alſo might be readie upon that day to ſallie forth.

Ouſles, Throſtles, Blackbirds, and Stares, after the ſame manner depart aſide from us, but goe not farre. Howbeit, theſe caſt not their feathers, nor lie altogether hidden: but are ſeene oftentimes in places, from whence they fetch meat to ſerve them in the Winter. And therefore it is, that Black birds are common in Germanie, and eſpecially in Winter time.

The Turtle more properly and truly is ſaid to hide her ſelfe, and to ſhed her plume and moult.

Stock-doves likewiſe depart from us, but whether they goe, no man knoweth.

As touching Sterlings, it is the propertie of the whole kind of them to flie by troupes, and in their flight to gather round into a ring or ball, whiles every one of them hath a deſire to bee in the middeſt.

Of all birds, the Swallow alone flieth bias, and windeth in and out in his flight: hee is moſt ſwift of wing, and flieth with eaſe: and therefore not ſo readie to bee ſurpriſed and taken by other birds. To conclude, he never feedeth but flying, and ſo doth no other bird beſides.

Chap. xxv.

What birds continue with us all the yeare long: which be halfe yeares birds, and which be but for three months.

GReat difference there is in the ſeaſons and times of birds. Some abide the whole yeare, as houſe-Doves: others halfe the yeare, as Swallowes: and ſome againe but a quarter, as Blackbirds and Turtle doves. And there be again that are gone ſo ſoone as they have hatched and trained their young abroad into the open aire. Such bee the Hu-holes, and Houpes, [or Lapwings as ſome thinke.]

Chap. xxvi.

Strange ſtories of birds.

WRiters there bee who affirme, That every yeare certaine birds come flying out of Æthyopia to Ilium, and there, about the tombe or ſepulchre of *Memnon*, skirmiſh and fight a battell. For which cauſe men call them Memnonides. And *Cremutius* avoucheth upon his owne knowledge, That every fift yeare the ſame birds doe the like in Æthyopia, even before the roiall palace ſometime of the ſaid king *Memnon*.

Semblably, the birds named Maleagrides, doe fight a field in Bœotia. Now are theſe Meleagrides a kind of Turkey-cockes, and hens of Affricke, having a bunch on their backe, and beſpotted with feathers of ſundrie colours. Of all ſtrange birds, comming out of forraine parts, theſe are laſt received and admitted to ſerve the table, by reaſon of a certaine harſh and unpleaſant ſtrong taſt that they have. But it is the monument and tombe of *Meleager* which hath given them that name and credite which they have.

Chap. xxvii.

Of birds ſurnamed Seleucides.

THe birds called Seleucides, come to ſuccour the inhabitants of the mountaine Caſius, againſt the Locuſts. For when they make great waſt in their corne and other fruits, *Iupiter* at the inſtant praiers and ſupplications of the people, ſendeth theſe foules among them to deſtroy the ſaid Locuſts. But from whence they come, or whether they goe againe, no man knoweth: for never are they ſeene but upon this occaſion, namely, when there is ſuch need of their helpe.

Chap. xxviii.

Of the bird Ibis.

THe Ægyptians likewiſe have recourſe in their praiers and invocations to their birds named Ibis, what time as they be troubled and annoied with ſerpents comming among them. And

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in like caſe the Eleans ſeeke unto their god *Myiagros*, for to be rid of a multitude of flies which peſter them ſo, that they breed a peſtilence among them. But looke upon what day they find that Idoll appeaſed and pacified by their ſacrifice, all the flies die forthwith.

Chap. xxix.

What birds they be, which will not abide ſome places: alſo which be they that change colour and voice: and then of the Nightingale.

BVt that which wee ſhould have ſaid when wee wrote of the departure and going aſide of birds: the Howlets alſo are reported to lie hidden ſome few daies. Moreover, this is known for a truth, That in the Iſland Candie there be none at all of them: and in caſe that any one be thither brought, it will die there. A wonderfull thing, that Nature ſhould make difference of birds and other creatures in that reſpect. But ſure it is, ſhe hath not brought forth all creatures in all places, but hath priviledged this countrey more than that: and denied that to one which ſhe hath given unto another. And thus hath ſhee dealt not onely by fruits of the earth, trees, and plants, but alſo by living creatures. That in ſome parts this or that ſhould not grow or breed, is a thing commonly ſeene & knowne: but, that thoſe things ſhould die ſo ſoon as they are brought thither, is very ſtraunge and wonderfull. What ſhould that bee which is ſo contrarie unto one kind and no more, as that it will not ſuffer it to live? What envie is this of Nature, thus to hinder the breeding or life of any creature? or why ſhould birds be reſtrained within any limits and bounds in the whole earth? And yet ſee! In all the Iſland of Rhodes a man ſhall not find one Airie of Ægles. In that tract of Italie beyond the Po, and neere unto the Alpes, there is a lake which they call there Larius; the place about it is right pleaſant and delectable, enriched with goodly trees that beare fruit, and faire fields for paſturage: and yet a man ſhall never ſee any Storke to come thither, no nor within eight miles of it. And yet in the neighbor quarters of the *Inſubrians neere adjoining, ye ſhall have infinite and innumerable flockes and flights of choughes and jack dawes: the verieſt theeves, nay the onely theeves of all other birds, eſpecially for ſilver and gold, that it is a wonder to ſee what means they will make to ſteale and filch it. Men ſay that in the territorie of Tarentum there be no wood-pecks or tree-jobbers. It is but of late daies, ſince that from the mountaine Apennine toward the cittie of Rome there have been ſeene Pyanners with long tailes, partie coloured and flecked, whereupon they bee called Variæ: and yet ſuch are not common, but very geaſon to be found. Their propertie is to be bald every year, what time as men ſow rapes or navewes. The Partridges in the territorie of Attica, flie not over into the marches of Bœotia. And there is not a bird within the compaſſe of the ſea Pontus, and namely, in the Iſland wherein *Achilles* was buried, that will paſſe beyond the temple conſecrated unto him. In the territorie of Fidenæ neere to Rome, Storkes build no neaſts, neither ſhall a man find a yong Storke there. But into the parts about Volaterræ, there is not a yeare but one ſhall ſee a world of Stockdoves flying from beyond ſea. At Rome yee ſhall not have a flie or dog that will enter into the chappell of *Hercules* ſtanding in the beaſt-market. In a word, I could alleadge many ſuch like examples; which of purpoſe I paſſe over, becauſe I would not be tedious in my diſcourſes: ſeeing that *Theophraſtus* reporteth, how all the Doves, Peacockes, and Ravens which are in Aſia, have been brought thither from other parts: like as all the Frogs in Cyrenaica, which doe crie, whereas their owne be mute all.

*Lumbardie.

As for ſinging birds, this is another ſtrange and wonderous thing obſerved in them. For at certaine times of the year they chaunge their colour in feathers, and alter their voice in ſinging: and that in ſuch ſort, as of a ſuddaine a man would ſay they were other birds. A thing that happeneth not to the great foules aboveſaid, ſave only unto Cranes: for they with age waxe black. And to begin with the Merle or Blackbird, which naturally is blacke, he turneth to be reddiſh. In ſummer he ſingeth cleare and tunably, in winter he ſtutteth and ſtammereth: but about the ſun-ſtead in December, hee is mute and dumbe altogether. After they bee once a yeare old, I meane the cockes or males onely of that kind, their bils turne to be white like yvorie. The Throſtles or Maviſſes all Summer be painted about the necke with ſundry colours, but in Winter they be all of a colour.

The Nightingale for fifteene daies and nights together, never giveth over but chaunteth continually, namely, at that time as the trees begin to put out their leaves thicke. And ſurely this

this bird is not to be ſet in the laſt place of thoſe that deſerve admiration: for is it not a woonder C
that ſo lowd and cleere a voice ſhould come from ſo little a bodie? Is it not as ſtraunge that
ſhee ſhould hold her wind ſo long, and continue with it as ſhee doth? Moreover, ſhee alone
in her ſong keepeth time and meaſure truely; ſhee riſeth and falleth in her note juſt with the
rules of muſicke and perfect harmonie: for one while, in one entire breath ſhe draweth out her
tune at length treatable; another while ſhee quavereth, and goeth away as faſt in her running
points: ſometime ſhe maketh ſtops and ſhort cuts in her notes, another time ſhee gathereth in
her wind and ſingeth deſcant between the plaine ſong: ſhe fetcheth her breath againe, and then
you ſhall have her in her catches and diviſions: anon all on a ſodaine, before a man would think
it, ſhe drowneth her voice, that one can ſcarce heare her: now and then ſhe ſeemeth to record to
her ſelfe; and then ſhee breaketh out to ſing voluntarie. In ſumme, ſhe varieth and altereth her F
voice to all keyes: one while, full of her largs, longs, brieſes, ſemibrieſes, and minims; another
while in her crotchets, quavers, ſemiquavers, and double ſemiquavers: for at one time you ſhall
heare her voice full and lowd, another time as low; and anon ſhrill and on high: thicke and ſhort
when ſhe liſt; drawne out at leiſure againe when ſhe is diſpoſed: and then (if ſhee be ſo pleaſed)
ſhe riſeth & mounteth up aloft, as it were with a wind-organ. Thus ſhe altereth from one to ano-
ther, and ſingeth all parts, the Treble, the Meane, and the Baſe. To conclude, there is not a pipe
or inſtrument againe in the world (deviſed with all the Art and cunning of man ſo exquiſitely
as poſſibly might be) that can affourd more muſicke than this pretie bird doth out of that little
throat of hers. So as no doubt there was fore-ſignified moſt excellent and melodious muſicke,
by an excellent preſage of a nightingale which ſetled upon the mouth of *Steſichorus* the Poët,
and there ſung full ſweetly: who afterwards prooved to be one of the moſt rare and admirable
muſitians that ever was. And that no man ſhould make a doubt that there is great Art and cun-
ning herein, doe but marke, how there is not one Nightingale but hath many notes and tunes.
Againe, all of them have not the ſame, but every one a ſpeciall kind of muſick by her ſelfe: nay,
they ſtrive who can do beſt, and one laboureth to excel another in varietie of ſong and long con-
tinuance: yea and evident it is, that they contend in good earneſt with all their will and power:
for oftentimes ſhe that hath the worſe and is not able to hold out with another, dieth for it, and
ſooner giveth ſhe up her vitall breath, than giveth over her ſong. Ye ſhall have the young Nigh-
tingales ſtudie and meditate how to ſing, by themſelves: yee ſhall have them liſten attentively to
the old birds when they ſing, and to take out leſſons as it were from them, whom they would ſeem I
to imitate ſtaffe by ſtaffe. The ſcholler, when ſhee hath given good eare unto her miſtreſſe, pre-
ſently rehearſeth what ſhe hath heard; and both of them keep ſilence for a time in their turnes.
A man ſhall evidently perceive when the young bird hath learned well, and when againe it muſt
be taught how to correct and amend wherein it did amiſſe: yea and how the teacher will ſeeme
to reproove and find a fault. No marveile therefore if one of theſe Nightingales carrie the price
(in the market) of a bondſlave; yea and a higher too, than a man might in old time have bought
a good page and harneſſe-bearer. I my ſelfe have knowne one of them (mary it was white, which
was a rare thing and not commonly ſeene) to have been ſold for 6000 Seſterces, for to be given
as a preſent unto the Empreſſe *Agrippina*, wife of *Claudius Cæſar* late Emperour of Rome. And I
now of late we have known many of them taught to begin to ſing, only when a man would have
them: and keepe there reſponds in courſe after others, in good concent and harmonie. As alſo
there have been found men, who by a deviſe of a reed or cane had out of the water, put croſſe
overthwart their mouth, and by putting their tongue into an hole made of purpoſe in it, and
blowing withall, could counterfeit the Nightingale ſo perfectly, that one might not diſcern and
diſtinguiſh the one from the other. Well, theſe little Nightingales, ſo great chaunters as they be,
ſo cunning and full of their conceits, after fifteen daies begin to abate and ſlake their muſicke;
yet ſo, as a man cannot ſay, they were either wearie, or ſatisfied with ſinging: for ſoone after, when
the weather groweth hotter, their voice is cleane altered: for neither are they muſicall and tune-
able in their meaſures with varietie as before, but onely ſing plaine-ſong and keepe them to one
tune. And more than ſo, they chaunge their colour in proceſſe of time: and laſt of all, when win- M
ter comes, be no more ſeene. Tongued they are not like other birds, with a thin tip before. They
begin to breed with the firſt, in the prime of the ſpring, and commonly lay ſix egges.

The Gnatſnapper, Ficedula, a bird ſomewhat like unto the Nightingale, doth otherwiſe: for
at one time, it chaungeth both colour, forme, and ſong. They have not that name Ficedulæ pro-

perly

perly but in the Autumne, as one would ſay, figge-feeders: for when that ſeaſon is once paſt, they be called Melancoryphi, *i.* Black-heads.

In like ſort, the bird which is named Erithacus, [*i.* Robin, or Redbreaſt] in winter; the ſame is Phœnicurus, [*i.* Red-taile] all ſummer long.

The Houpe or Vpupa (as *Æſchylus* the Poët ſaith) chaungeth alſo her hew, voice, and ſhape. This is a * naſtie and filthie bird otherwiſe, both in the manner of feeding, and alſo in neſtling; but a goodly faire creſt or combe it hath, that will eaſily fold and be plaited: for one while ſhee will draw it in, another while ſet it ſtiffe-upright along the head.

* For as *Ariſt.* reporteth, it neſtleth in mans dung.

As for the bird Oenanthe, it alſo for certaine daies lyeth cloſe and unſeen; and namely, when the Dog-ſtarre ariſeth, it is hidden: but after the occultation thereof, commeth abroad & ſheweth her ſelfe: a ſtraunge thing, that in thoſe daies it ſhould doe both. Laſt of all, the * Witwall or Lariot, which is all over yellow, being not ſeen all winter time, appeareth about the ſunſteeds.

* Chlorion.

Chap. xxx.

Of the Merles.

About Cyllene in Arcadia, and no where els, ye ſhall find white Merles or Ouſles. And Ibis, about Peluſium onely in Ægypt, is blacke; in all places elſe of Ægypt, white.

Chap. xxxi.

The kind of birds breeding and hatching.

All ſinging birds, ſave onely thoſe that are excepted before, lightly breed not nor lay their egges before the ſpring Æquinoctiall in mid-March, or after the Autumnall, in mid-September. And thoſe that they hatch before the ſummer Sunſtead, [*i.* mid-Iune] hardly come to any perfection: but after that time, they doe well enough and live.

Chap. xxxii.

Of the Halcyones, or Kings-fiſhers: and the daies good for navigation which they ſhew. Of the Sea-guls and Cormorants.

And in this regard eſpecially, namely for breeding after the ſummer Sunſteed, the Halcyones are of great name and much marked. The very ſeas, and they that ſaile thereupon, know well when they ſit and breed. This very bird ſo notable, is little bigger than a ſparrow: for the more part of her pennage, blew, intermingled yet among with white and purple feathers, having a thin ſmall neck and long withall. There is a ſecond kind of them breeding about the ſea ſide, differing both in quantitie and alſo in voice; for it ſingeth not as the former do which are leſſer: for they haunt rivers, and ſing among the flagges and reeds. It is a very great chaunce to ſee one of theſe Halcyones, and never are they ſeene but about the ſetting of the ſtarre Virgiliæ, [*i.* the Brood-hen:] or elſe neere mid-ſummer or mid-winter: for otherwhiles they will flie about a ſhip, but ſoone are they gone againe and hidden. They lay and ſit about mid-winter when daies be ſhorteſt: and the time whiles they are broodie, is called the Halcyon daies: for during that ſeaſon, the ſea is calme and navigable, eſpecially in the coaſt of Sicilie. In other ports alſo the ſea is not ſo boiſterous, but more quiet than at other times: but ſurely the Sicilian ſea is very gentle, both in the ſtreights and alſo in the open Ocean. Now about ſeven daies before mid-winter, that is to ſay, in the beginning of December, they build; and within as many after, they have hatched. Their neſts are wonderouſly made, in faſhion of a round bal: the mouth or entrie thereof ſtandeth ſomewhat out, and is very narrow, much like unto great ſpunges. A man cannot cut and pierce their neſt, with ſword or hatchet; but break they wil with ſome ſtrong knocke, like as the drie ſome of the ſea: and no man could ever find of what they be made. Some thinke they are framed of the ſharpe pointed prickes of ſome fiſhes, for of fiſh theſe birds live. They come up alſo into freſh rivers within-land: and there doe lay ordinarily five egges.

As touching the Guls or Sea-cobs, they build in rockes: and the Cormorants both in them, and alſo in trees. They uſually lay foure egges apeece. The Guls in ſummer time, but the Cormorants in the beginning of the ſpring.

Chap.

Chap. XXXIII.

The induſtrie and wit of birds in building their neſts. Of the Swallow, the Argatilis, Cinnamologi, and Partridges.

THe Architecture and building of the Halcyones neſt, hath put me in mind of other birds dexteritie in that behalfe: and ſurely in no one thing is the wit of ſillie birds more admirable. The Swallows frame their neſts of clay and earth, but they ſtrengthen and make them faſt with ſtraw. In caſe at any time they cannot meet with ſoft and tough clay, for want thereof they drench and wet their feathers with good ſtore of water, and then beſtrew them over with duſt. Now when they have made and trimmed their bare neſt, they floore it in the bottom within, and dreſſe it all over with downe feathers or fine floxe, as well to keepe their egges warme, as alſo that their young birds ſhould lie ſoft. In feeding of their little ones, they keepe a very good order and even hand, giving them their pittance and allowance by courſe one after another. Notable is their care in keeping them neat and cleane; for ever as they meut, they turne the excrements out of the neſt: but be they once growne to any ſtrength and bigneſſe, they teach them to turne about and lay their tailes without.

Another kind there is of Swallowes, that keepe in the countrey villages and the fields, which ſeldome neſtle under mens houſes: and they likewiſe build of the ſame matter as the former do, namely, of clay and ſtraw, but after another faſhion: for their neſts are made turning all upward, with the hole or mouth that leadeth unto it, ſtretched out in length ſtreight and narrow, but the capacitie within is verie large; in ſuch ſort, as it is a wonder to ſee how provident and skilful they ſhould be to frame them in this manner, ſo handſome and convenient to cover their yong ones; ſo ſoft againe, for their couch and bed. In the mouth of Nilus neare Heraclea in Ægypt, there is a mightie banke or cauſey raiſed onely of a continuall ranke and courſe of Swallowes neſts, piled one upon and by another thicke, for the length almoſt of halfe a quarter of a mile; which is ſo firme and ſtrong, that being oppoſed againſt the inundations of Nilus, it is able to breake the force of that river when it ſwelleth, and is it ſelfe inexpugnable: a peece of work that no man is able to turne his hand unto. In the ſame Ægypt neere unto the town Coptos, there is an Iland conſecrated unto the goddeſſe *Iſis*, which every yeere theſe Swallowes doe rampier and fortifie, for feare leaſt the ſame Nilus ſhould eat the bankes thereof and breake over into it. In the beginning of the ſpring, for three nights togither, they bring to the cape of that Iland, ſtraw, chaffe, and ſuch like ſtuffe, to ſtrengthen the front thereof: and for the time, they plie their buſineſſe ſo hard, that for certaine it is knowne, many of them have died with taking ſuch paines and moiling about this worke. And verily every yeere they goe as daily to this taske againe, as the ſpring is ſure to come about: and they faile not, no more than ſouldiers that by vertue of their militarie oth and obligation, goe forth to ſervice and warfare.

A third ſort there is of theſe Swallowes or Martinets, which hollow the bankes of rivers, and ſo neſtle within between. The young birds of theſe Martins, if they be burnt into aſhes, are a ſingular and ſoveraign remedie for the deadly ſquinancie, and helpe many other diſeaſes of mans bodie. Theſe build not at all: but if they perceive that the river Nilus when it ſwelleth, will riſe as high as their holes, they are gone many daies before.

There be certaine birds of the kind of Parræ, which of drie moſſe make a neſt, reſembling ſo perfectly a round ball, that unneth or hardly a man can ſee which way they ſhould goe in. And another there is called Argatilis, which contriveth her neſt after the ſame forme, but it is of hurds and flaxe.

There is a kind of Woodpecker, maketh a neſt in manner of a cup or goblet, and hangeth it at a twig upon the uppermoſt boughes and braunches of a tree, that no four-footed beaſt ſhould reach it. And as for the birds called Galguli, men ſay for a truth, that they take their ſleepe hanging all by their legges to ſome braunch, thinking by that meanes they are in more ſafetie. True it is indeed and commonly knowne, that all theſe birds in great forecaſt and providence, chuſe ſome croſſe boughes inſtead of rafters, to ſupport and beare up their neſts; and then to ſave them from the raine, either vaut them over with an arched roofe, or elſe cover them cloſe and thicke with leaves.

A bird there is in Arabia called Cinnamologus, which with the twigs and braunches of the Cinamon

A Cinamon tree buildeth her neſt. The inhabitants of that countrey being ware thereof, ſhake the ſame downe by ſhooting arrowes headed with lead, for to make a commoditie thereby. In Scythia, there is a bird of the bigneſſe of an Otis, which commonly layeth two egges, & when they are lapped within a hares skin, alwaies hangeth them upon the top of tree boughes. The Pyannets, when they perceive (by a watching eye that they have) that a man hath ſpied their neſt, preſently build in another place, and remoove their egges thither. Now for thoſe birds which have no hooked nailes, how they ſhould tranſlate their egges from one place to another, conſidering their feet are not made to claſpe them, it is a wonderfull thing, and reported after a ſtraunge manner: for they lay a ſticke over two egges, and ſouder it faſt to them with a certaine viſcoſitie which commeth forth of their owne guts when they meut: which done, they put their
B necks under the ſticke betweene both egges, which hanging equally poiſed of either ſide, they carrie eaſily whither they would.

No leſſe induſtrious are they that make their neſts in the ground, as beeing not able to flie into the aire by reaſon of their weightie bodies. Among which, there is one called Merops, that uſeth to feed her parents, lying hidden within the earth. The inſide of her feathers in the wing is pale, the outſide blew; and yet thoſe above about their necke, are ſomewhat red. She maketh her neſt in an hole ſix foot deepe within the ground. Againe, the Partridges doe ſo fortifie and empale their neſts with thornes and twigges of ſhrubs and buſhes, that they be ſufficiently fenſed againſt the invaſion of wild beaſts. They cover their egges with a ſoft carpet or hilling as it were of fine duſt: neither doe they ſit where they laid them firſt, nor yet in a place which they ſuſpect
C to bee much frequented with reſort of paſſengers, but convey them to ſome other place. The hennes verily of this kind, hide themſelves from their males the cockes; for ſo leacherous they be and given to intemperate luſt, that they would ſquaſh their egges, becauſe they ſhould not be amuſed and occupied about ſitting. Then, for want of the females, the males goe togither by the eares: and (as they ſay) he that is overcome, ſuffereth himſelfe to be troden like an hen. *Trogus* verily reporteth the very ſame of the Quailes; yea and of dunghill cockes otherwhiles. Hee ſaith moreover, that tame Partridges uſe to tread the wild: alſo that thoſe which are new taken or beaten, be troden of others indifferently one with another. This libidinous heat of theirs is ſuch, and maketh them ſo quarrelſome, that oftentimes they are taken by the meanes. For when
D the Fouler commeth with his pipe or call (reſembling the female) to allure and traine them forth, out goeth the captaine of the whole flocke directly againſt him: and when he is caught, another followeth after, and ſo the reſt one after another, one by one. In like manner, they uſe to take the females, at what time as they ſeeke the male to tread them: for then, foorth they go againſt the Foulers chanterell or watch which calleth them our, that with their quarrelling and brawling which they make, they might chace and drive it away. In ſumme, there is not to bee found in any other living creature, the like againe for luſt and leacherie in the act of generation. If the hens doe but ſtand directly overagainſt the cocks, the very wind and aire that paſſeth from them, will cauſe them to conceive as well as if they were troden. For ſo hot they be in that ſeaſon, that they gape again for aire, and hang the tongue out of their heads. And if the males do but flie over them, with the very breath and aire that commeth from them, they will be ready to
E conceive: yea and many times, if they doe but heare their call. And that which more is, ſo leacherous they are, that ſetting aſide the naturall affection and love to their yong covie, when they are broodie, (and in which regard they ſteale from the cock, & ſit apart in ſome ſecret and blind corner) yet if they hear once the Foulers chanterell comming toward the male, and that he doth call, preſently they will leave the neſt and ſuffer the egs to chill, and for very jealouſie crie again and call back the males, and offer themſelves to be troden, for feare they would goe to others. Nay more than that, their furie and rage that way many times is ſuch, that otherwhiles in this blind fit and fearfull luſt, not knowing where they are nor what they doe, they will light and ſettle upon the verie head of the Fouler. Alſo, if he chaunce to approach the neſt of the brood-hen, ſhe will run forth and be about his feet, ſhe will counterfeit that ſhee is verie heavie and cannot ſcarſe goe, that ſhe is weake and enfeebliſhed: and either in her running, or ſhort flight that ſhee taketh, ſhe will catch a fall, and make ſemblance as if ſhe had broken a legge or a wing: then will ſhe run out againe another way, and when he is readie to take her up, yet will ſhe ſhift away and eſcape, and ſo put him beſides his hope. And all this doth ſhe to amuſe the Fouler after her, untill ſhe have trained him a contrarie way from the covey. Now by that time that ſhee is paſt that

feare, and freed of the motherly care she had of her young ones, then will shee get into the furrow of some land, lie along on her backe, catch a clot of earth up with her feet, and therewith hide her whole bodie, and so save both her selfe and her couvey. To conclude, Partridges (by report) live sixteene yeeres.

Chap. xxxiiii.

Of House-doves.

NExt after Partridges, the nature of Doves would be considered, since that they have in a manner the same qualities in that respect: howbeit, they bee passing chast, and neither male nor female chaunge their make, but keepe togither one true unto the other. They live (I say) as coupled by the bond of marriage: never play they false one by the other, but keep home still, and never visit the holes of others. They abandon not their owne nests, unlesse they be in state of single life or widdowhead by the death of their fellow. The females are verie meeke and patient: they will endure and abide their emperious males, notwithstanding otherwhiles they be very churlish unto them, offering them wrong and hard measure; so jealous be they of the hennes, and suspicious, though without any cause and occasion given: for passing chast and continent by nature they are. Then shall ye heare the cocks grumble in the throat, quarrell and complaine, and all to rate the hens: then shall ye see them pecke and job at them cruelly with their beakes; and yet soone after, by way of satisfaction and to make amends againe for their curst usage, they will fall to billing and kissing them lovingly, they will make court unto them and woo them kindly, they will turne round about many times togither by way of flatterie, and as it were by praiers seeke unto them for their love. As well the male as the female be carefull of their young pigeons, and love them alike: nay ye shall have the cocke oftentimes to rebuke, yea chastise the hen, if she keepe not the nest well; or having been abroad, for comming no sooner home againe to her young. And yet, kind they be to them, when they are about to build, lay, and sit. A man shall see how readie they be, to helpe, to comfort and minister unto them in this case. So soone as the egges be hatched, yee shall see them at the very first, spit into the mouthes of the young Pigeons salt brackish earth, which they have gathered in their throat, thereby to prepare their appetite to meat, and to season their stomacks against the time that they should eat. Doves and Turtles have this propertie, in their drinking not to hold up their bills between-whiles, and draw their necks backe, but to take a large draught at once, as horses and kine doe.

Chap. xxxv.

Of Stockdoves.

SOme authors we have, who affirme that Stockdoves live ordinarily thirtie yeeres, and some untill they be fortie yeeres old. In which time, they find no infirmitie nor discommoditie at all but only this, That their clawes be overgrowne, which is a signe of their age: howbeit they may be pared without daunger. They have all of them one and the same manner of tune in their singing; and commonly they make three rests in their song, besides the fa-burden in the end, which is a kind of grone. All winter they be silent: in spring, they are lowd enough, and the woods resound with them. *Nigidius* is of opinion, that if a man call unto a Stockdove within-house as she is sitting upon her egs, she will leave her nest, and come at the call. They doe lay after midsummer. These doves and Turtles live eight yeeres.

Chap. xxxvi.

Of Sparrowes.

COntrariwise, the Sparrow is but short lived, howbeit as leacherous as the best. The cocke Sparrow (by report) liveth but one yeare: the reason why men so thinke, is, because in the spring, there is not one of them found with a blacke bill, and yet in summer before, it began to be blacke. The Hens live somewhat longer. But to come againe to Doves, it is generally held, that they have a certaine sense and feeling of glorie: and a man would verily thinke, that they have a knowledge of their gay feathers, and how they are chaungeably coloured as a man looketh

looketh upon them and as they ſtand. Moreover, they ſeem to take a pride in their flying, whiles they keepe a clapping of their wings and cutting of the aire every way, as if they had a pleaſure to be flying abroad. In which braverie of theirs, whiles they flap with their wings and keepe a glorious noiſe (which cannot be without the beating of their verie pinions togither) they are expoſed to the Faulcon and other hawkes, as priſoners faſt bound and tied: for otherwiſe if they would flie at libertie and eaſe, without keeping ſuch adoe with their clapping, they were much more ſwift of wing, than the verie hawkes that prey upon them. But the hawke like a verie theefe, lieth hidden among the boughes and braunches of trees, marketh the Dove how hee fetcheth his flight and taketh his pleaſure in the aire; and when he ſeeth his time (in all this glorie of his and the mids of his braverie) ſeizeth upon him and carieth him away.

Chap. xxxvii.

Of the Keſtrell.

TO prevent this daunger therefore, the Doves need to have with them the bird which is called Tinnunculus, *i.* a Keſtrill, or Stannell: for ſhe defendeth them, and (by a certaine naturall power that ſhe hath) skareth and terrifieth all other hawkes: inſomuch, as they cannot abide either to ſee her, or to heare her crie. Wherupon Doves above all others, love theſe birds. And (as men ſay) pigeons will not leave their owne dovecote to flie unto another, if in the foure corners thereof there be enterred foure Keſtrils aboveſaid, in foure new earthen pots well nealed, and never uſed before. But others have uſed meanes to keepe pigeons in their dovehouſe (for otherwiſe they be birds that love to be raunging and wandring abroad) namely, by ſlitting and cutting the joynts of their wings with ſome thin ſharpe peece of gold: for if you do not ſo, their wounds will feſter and be dangerous. And in verie truth, theſe birds be ſoone ſeduced and trained away from their owne homes: and they have a caſt with them to flatter and entiſe one another: they take a great delight to inveagle others, and to ſteale away ſome pigeons from their owne flockes, and evermore to come home better accompanied than they went foorth. Moreover, Doves have ſerved for poſts and courriers betweene, and been emploied in great affaires: and namely, at the ſiege of Modenna, *Decimus Brutus* ſent out of the towne letters tyed to their feet, as farre as to the campe where the Conſuls lay, and thereby acquainted them with newes, and in what eſtate they were within. What good then did the rampier and trench which *Antonius* caſt before the towne? To what purpoſe ſerved the ſtreight ſiege, the narrow watch and ward that he kept? Wherefore ſerved the river Po betweene, where all paſſages are ſtopped up as it were with net and toile, ſo long as *Brutus* had his poſts to fly in the aire over all their heads? To be ſhort, many men are growne now to caſt a ſpeciall affection and love to theſe birds: they build turrets above the tops of their houſes for dovecotes. Nay they are come to this paſſe, that they can reckon up their pedigree and race, yea they can tell the verie places from whence this or that pigeon firſt came. And indeed one old example they follow of *L. Axius* a gentleman ſometime of Rome, who before the civill warre with *Pompey*, ſold every paire of pigeons for * foure hundred deniers, as *M. Varro* doth report. True it is, that there goeth a great name of certaine countries where ſome of theſe pigeons are bred: for Campanie is voiced to yeeld the greateſt and faireſt bodied of all other places. To conclude, their manner of flying induceth and traineth me to thinke and write of the flight of other foules.

* 12. *lib.* 10. *ſ.*

Chap. xxxviii.

Of the gate and flight of birds.

ALl other living creatures have one certaine manner of marching and going, according to their ſeverall kind, unto which they keepe and alter not. Birds onely varie their courſe, whether they goe upon the ground or flie in the aire. Some walke their ſtations, as Crows and Choughs: others hop and skip, as Sparrows and Ouſels: ſome run, as Partridges, Woodcocks, and Snites: others again caſt out their feet before them, ſtaulke and jet as they go, as Storks and Cranes. Now for flying, ſome ſpread their wings broad, ſtirring or ſhaking them but now & then,

hanging and hovering with them all the while [as Kites:] others againe plie them as faſt; but the ends only of their wings, or the utmoſt feathers are ſeen to move [as the Chaffinch.] Ye ſhall have ſome birds to ſtretch out their whole wings and ſides, mooving them as they flie [as Ravens,] and others a man ſhall ſee in their flight to keepe them in, for the moſt part cloſe [as the Woodpeckers.] Some of them are knowne to give one or two claps with their wings at firſt, and then glide ſmoothly away, as if they were caried and borne up with the aire [as Linnets,] and others are ſeene (as if they kept ſtill the aire within their wings) to ſhoot up aloft & mount on high, to flie ſtreight forward, and to fall down again flat [as Swallowes.] Ye would think and ſay that ſome were hurled out of a mans hand with violence [as the Partridge,] and others againe to fall down plumb from on high [as Larkes,] or els to leape and jumpe [as the Quailes.] Duckes, Mallards, and ſuch like, ſpring preſently from the ground up aloft, and ſuddainly mount into the skie, even out of the very water: which is the cauſe, that if they chance to fall into thoſe pits wherein we take wild beaſts, they alone will make good ſhift to get forth and eſcape. The Geires or Vulturs, and for the moſt part all weightie and heavie foules, cannot take their flight and flie, unleſſe they fetch their run and biere before, or els riſe from ſome ſteepe place with the vantage. And ſuch are directed in the aire by their tailes. Some looke about them every way, others bend and turne their neckes in flying: and ſome flie with their prey within their tallons, and eat it as they flie. Moſt birds crie and ſing as they flie, yet ſome there bee contrariwiſe, that in their flight are ever ſilent. In one word, ſome flying carie their breaſts and bellies halfe upright: others againe bear them as much downward. Some flie ſidelong and bias: others directly forward, and follow their bils: & laſt of all there be that bend backward as they flie, or els bolt upright. In ſuch ſort, that if a man ſaw them all together, he would take them, not to bee one kind of creature, ſo divers and different are they in their motions.

Chap. xxxix.

Of *Martinets*.

MArtinets, which the Greekes call Apodes (becauſe they have little or no uſe of their feet) and others, Cypſeli; are very good of wing, and flie moſt of all others without reſt. And in very truth, a kind of Swallowes they be. They build in rocks and ſtonie cliffes. And theſe be they and no other, that are ſeene evermore in the ſea: for bee the ſhips never ſo remote from the land, ſaile they never ſo faſt and farre off, yee ſhall have theſe Martinets alwaies flying about them. All kinds elſe of Swallowes and other birds, do ſometime light, ſettle, and perch: theſe never reſt, but when they bee in their neaſt. For either they ſeeme to hang, or elſe lie along: and a number of ſhifts and deviſes by themſelves they have beſides, and namely when they feed.

Chap. xl.

Of the bird *Caprimulgus*, and the *Shovelar*.

THe Caprimulgi (ſo called of milking goats) are like the bigger kind of Owſels. They bee night-theeves; for all the day long they ſee not. Their manner is to come into the ſheepeheards coats and goat-pens, and to the goats udders preſently they goe, and ſuck the milke at their teats. And looke what udder is ſo milked, it giveth no more milke, but miſliketh and falleth away afterwards, and the goats become blind withall.

There be other birds named Plateæ, *i.* Shovelars. Their manner is to flie at thoſe foule that uſe to dive under the water for fiſh: and ſo long will they pecke and bite them by the heads, untill they let go their hold of the fiſh they have gotten, and ſo they wring it perforce from them. This bird when his bellie is full of ſhell-fiſhes that he hath greedily devoured, and hath by the naturall heat of his craw and gorge in ſome ſort concocted them, caſteth all up again: and at leaſure picketh out the meat, and eateth it againe, leaving the ſhels behind.

Chap. xli.

The naturall wit of ſome birds.

THe Hens of countrey houſes have a certaine ceremonious religion. When they have laid an egge, they fall a trembling and quaking, and all to ſhake themſelves. They turne about alſo

A alſo,as in proceſſion,to be purified,and with ſome feſtue or ſuch like thing,they keepe a ceremonie of hallowing,as well themſelves as their egs.

Chap. xlii.

Of the Linnet,Poppinjay or Parrat,and other birds that can ſpeake.

THe Linnets be in manner the leaſt birds of all others: howbeit they be very docible. Doe they will whatſoever they are taught and bidden,not onely in their voice,but alſo with their feet and bils, as if they were hands. In the territorie about Arelate,there is a bird called Taurus(becauſe it looweth like a Bull or Cow, for otherwiſe a ſmall bird it is.) There is another alſo named Anthus, which likewiſe reſembleth the neighing of horſes: and if haply by the approch of horſes they be driven from their graſſe whereof they feed,they will ſeeme to neigh;and flying unto them,chaſe them away,and ſo be revenged of them again. But above all other birds B of the aire, the Parrats paſſe, for counterfeiting a mans voice: inſomuch, as they will ſeeme to parle and prate our very ſpeech. This foule commeth out of the Indies,where they call it Sittace. It is all the bodie over greene, onely it hath a collar about the necke of vermilion red, different from the reſt of her feathers. The Parrat can skill to ſalute Emperours,and bid *good morrow: yea,and to pronounce what words ſhe heareth. She loveth wine well,and when ſhe hath drunke freely,is very pleaſant,plaifull,and wanton. She hath an head as hard as is her beake. When ſhe learnes to ſpeake, ſhe muſt be beaten about the head with a rod of yron: for otherwiſe ſhee careth for no blowes. When ſhee taketh her flight downe from any place,ſhee lighteth upon her bill,and reſteth thereupon,and by that meanes favoureth her feet, which by nature are but weak and feeble,and ſo carieth her owne weight more lightly. *χαῖρε.

There is a certaine Pie,of nothing ſo great reckoning and account as the Parrot,becauſe ſhe is not farre fet,but here-by neere at hand: howbeit, ſhee pronounceth that which is taught her more plainely and diſtinctly than the other. Theſe take a love to the words that they ſpeake: for they not onely learne them as a leſſon,but they learne them with a delight & pleaſure. Inſomuch that a man ſhall find them ſtudying thereupon,and conning the ſaid leſſon: and by their carefull thinking upon that which they learne, they ſhew plainely how mindfull and intentive they bee thereto. It is for certaine knowne, that they have died for very anger and greefe that they could not learne to pronounce ſome hard words: as alſo,that unleſſe they heare the ſame words repeated often unto them, their memorie is ſo ſhittle,they will ſoone forget the ſame againe. If they miſſe a word,and have loſt it,they will ſeeke to call it againe to remembrance;and if they fortune to heare the ſame word in the meane time,they will wonderfully joy thereat. As for their beautie, it is not ordinarie,although it be not very lovely. But ſurely amiable ynough they are in this, that they can ſo well reſemble mans ſpeech. It is ſaid, that none of their kind are good to bee made ſchollers,but ſuch onely as feed upon maſt: and among them, thoſe that have five toes to their feet. But even theſe alſo are not fit for that purpoſe,after the firſt two years of their age. And their tongue is broader than ordinarie: like as they bee all that counterfeit mans voice,each one in their kind: although it be in manner generall to all birds whatſoever to be broad tongued. *Agrippina* the Empreſſe,wife to *Claudius Cæſar*,had a Blackbird or a Throſtle, at what time as I compiled this booke, which could counterfeit mans ſpeech; a thing never ſeene nor knowne before. The two *Cæſars* alſo,the young princes(to wit,*Germanicus* and *Druſus*) had one Stare,and ſundrie Nightingales,taught to parle Greeke and Latine. Moreover, they would ſtudie upon their leſſons, and meditate all day long: and from day to day come out with new words ſtill, yea, and were able to continue a long ſpeech and diſcourſe. Now for to teach them the better,theſe birds muſt be in a ſecret place apart by themſelves,where they can heare no other voice: and one is to ſit over them,who muſt repeat often that which hee would have them to learne, yea, and pleaſe them alſo with giving them ſuch meat as they beſt love.

Chap. xliii.

The underſtanding and wit that Ravens have.

LEt us not defraud the Ravens alſo of their due praiſe in this behalfe, conſidering, that the whole people of Rome hath teſtified the ſame not onely by taking knowledge,but alſo by a publicke revenge and exemplarie puniſhment. And thus ſtood the caſe. In the daies of *Ti-*

berius the Emperour, there was a yong Raven hatched in a neast upon the church of *Castor* and C
Pollux, which, to make a triall how he could flie, tooke his first flight into a shoomakers shop just overagainst the said church. The maister of the shop was well ynough content to receive this bird, as commended to him from so sacred a place, and in that regard set great store by it. This Raven in short time being acquainted to mans speech, began to speake, & every morning would flie up to the top of the Rostra or publicke pulpit for Orations, where, turning to the open Forum and market place, he would salute and bid Good morrow to *Tiberius Cæsar*, and after him, to
5 *Germanicus* and *Drusus* the young princes, both *Cæsars*, every one by their names: and anon the people of Rome also that passed by. And when hee had so done, afterwards would flie againe to the shoomakers shop aforesaid. This dutie practised he and continued for many years together, to the great wonder and admiration of all men. Now it fell out so, that another shoomaker, who P
had taken the next corviners shop unto him, either upon a malicious envie that hee occupied so neere him, or some suddaine splene and passion of choller (as he would seeme to plead for his excuse) for that the Raven chaunced to meute a little, and set some spot upon a paire of his shoes, killed the said Raven. Whereat the people tooke such indignation, that they rising in an uprore, first drove him out of that street, and made that quarter of the cittie too hote for him: and not
5 long after murdered him for it. But contrariwise, the carkasse of the dead Raven was solemnely enterred, and the funerals performed with all ceremoniall obsequies that could bee devised. For the corps of this bird was bestowed in a coffin, couch, or bed, and the same bedecked with chaplets and guirlands of fresh floures of all sorts, carried upon the shoulders of two blacke Mores, with minstrels before, sounding the haut-boies, and playing on the fife, as farre as to the funerall fire; which was piled and made in the right hand of the causey Appia, two miles without the cittie, in a certain plaine or open field called Rediculi. So highly reputed the people of Rome that readie wit and apt disposition in a bird, as they thought it a sufficient cause to ordaine a sumptuous buriall therefore: yea, and to revenge the death thereof, by murdering a cittizen of Rome in that citie, wherein many a brave man and noble person died, and no man ever solemnized their funerals: in that citie I say which affoorded not one man to revenge the unworthie death of that renowned *Scipio Æmylianus*, after he had woon both Carthage and Numantia. This happened the fifth day before the Calends of Aprill, in the yeare when *M. Servilius* and *C. Cestius* were Consuls of Rome. Moreover, even at this very present, when I wrate this historie, I saw my selfe a Crow belonging to a certaine knight of Rome, who brought him out of the realme of Grena- K
do in Spaine, which was a very strange and admirable bird, not onely for the exceeding black colour of his feathers, but also for that he could pronounce and expresse so perfectly many words and sentences together, and learned still new lessons every day more than other. It is not long since that there went a great bruit and fame of a notable hunter in Erizena a countrey of Asia, whose name was *Craterus Monoceros*: that used to hunt by the meanes and helpe of Ravens. His manner was to carrie with him these Ravens into the forrest, perching upon his shoulders and his hunting hornes: and these would seeke out and put up other wild ones, and bring them to him. Thus by custome & use he brought his hunting to this good passe, that when he returned homeward out of the forrest, the wild as well as the tame would accompanie him. Some have thought it worth the setting downe upon record, how there was a Raven seene in time of a great drought when water was hard to come by, for to cast stones into the bucket belonging to a sepulchre, wherein there was some raine water remaining toward the bottome, but so deepe, that hee could not reach unto it: and being afraid to go downe into it, by heaping up many stones, he brought the water to rise so high, as he might drinke sufficient with ease.

Chap. xliiii.

Of *Diomedes his birds.*

NEither will I overpasse the birds called Diomedeæ, which king *Iuba* nameth Cataractæ. N
Toothed they are, as hee saith; and they have eies as red and bright as the fire: otherwise their feathers be all white. Who also affirmeth, that they evermore have two captains, the one for to lead the vaward, and the other for the reregard. With their bils they dig little trenches and gutters in the ground: over which from side to side they lay stickes acrosse like hurdles, very arti-

artificially, and then cover the same over with the earth that they cast forth before: under which they breed. Every one of these trenches hath two dores: the one regarding the East, at which they goe forth to their meat: and the other looking into the West, by which they come in again after their returne. Whensoever these birds would meute, they flie ever full into the wind, because they would not file themselves. Found they be in one place of the world, and but in one: namely in a certaine Island, ennobled, as we have written before, for the tombe and temple of *Diomedes*, and it lieth upon the coast of Apulia. These birds are like unto the white Sea-mewes with a black cop. Their manner is to crie with open mouth uncessantly at any strangers that come aland, save onely Grecians, upon whom they will seeme to fawne and make signes of love and amitie, in all flattering wise. A wonderfull thing that they should discerne one from another, and give such friendly welcome to them, as descended from the race of *Diomedes*. Their manner is every day to charge their throat and wings full of water, and all to drench therewith the said temple of *Diomedes*, in signe of purification. And hereupon arose the fabulous tale, That the companions of *Diomedes* were turned into these birds.

Chap. XLV.

What birds are not apt to learne, and will not be taught.

And now that we are in this discourse of wit and capacitie, I must not omit to note, That of birds, the Swallow; and of land beasts the Mouse and the Rat, are very untoward and cannot be brought to learne. Whereas we see great Elephants readie to doe whatsoever they are commanded: the furious Lions brought to draw under the yoke: the Seales within the sea, and so many sorts of fishes grow to be tame and gentle.

Chap. XLVI.

The manner of birds in their drinking.

Birds drinke sucking, and those which have long necks, make staies between, and every while hold up their bill from the water, as if they would poure the water downe their throat. The bird Porphyrio alone seemeth to bite the water as he drinketh. And this bird hath this propertie by himselfe, to dip and wet all his meat ever and anon in water, and then with his foot in lieu of an hand, to reach it unto his bill. The best of this kind are in Comagene. Their bils and long shankes that they have, be red.

Chap. XLVII.

Of the foule Himantipus, the Onocrotali, and other strange foules.

Like in that respect unto the Porphyrio, is the Himantipus: a bird farre lesse in bodie, but full as long legged, and stalking as high. They are bred in Ægypt: and goe upon three toes to a foot. Their most feeding is upon flies. In Italie they will not live many daies. All great and heavie foules live of seeds and corne. They that flie on high prey upon flesh. Among waterfouls, the Cormorants use to devour that which other birds either disgorge, or meute. The Onocrotali much resemble Swans, and surely they might bee thought the very same and no other, but that they have within their throat another kind of gizzer besides their craw: in which, these foules being unsatiable, bestow all that ever they can get; whereby it is of a wonderfull great capacitie, and will receive very much. Now when they have done their ravening, & filled this poke, soone after they conveigh it from thence by little and little into their mouth, and there chew the cud, untill after it bee well prepared, they swallow it downe into the verie craw and bellie indeed. These foules are to bee found in the parts of Picardie and Normandie in Fraunce, lying upon the North Ocean. In Hercinia, a forrest of Germanie, wee have heard that there bee straunge kinds of birds, with feathers shining like fire in the night season. In other respects, I have nothing to say of them worth the writing, save onely they are of some name, for beeing farre fetched.

Chap.

Chap. xlviii.

☞ *The names and natures of many birds.*

OF water-foules, the Phalerides are thought in Seleucia of the Parthians, and also in Asia, to be the daintiest. Likewise, the Fesant Hens of Colchis, which have two eares (as it were) consisting of feathers, which they will set up and lay downe as they list. The Ginnie or Turkey Hens, in a part of Affricke called Numidia be in great request, as also throughout all Italie nowadaies. *Apicius*, the most roiotous glutton & bellie-god of his time, taught men first, that the tongue of Phœnicopterus, was a most sweet and delicate peece of meat. The Moore-hen of Ionia is much commended and in high estimation. This bird so soone as she is taken prisoner, looseth her voice, and is mute: for otherwise she is vocall and lowd ynough: and in old time was reputed a rare and singular bird. But now there be caught of them in Fraunce and Spaine, yea, and among the Alpes: where also the Plungeons or bald-Ravens bee, which heretofore were thought proper & peculiar unto the Baleare Islands: like as the Pyrrhocorax [*i.* the red Raven] with the yellow bill, was supposed to breed onely among the Alpes; and with it the Lagopus, a daintie bird and most pleasant in the dish. And this name it tooke in Greeke, because it is rough-footed and haired like the Hares foot: otherwise all over white, and as big as a Pigeon. Have her out of the ground, under which she breedeth, you shall hardly get her to feed: neither will she be made tame, live she never so long: kill her once, the bodie presently will rot and putrifie. There is another besides of that name, and differeth from Quailes onely in bigneſſe, for it is greater than the Quaile: and with a yellow sauce of saffron it is a most delicate peece of meat. *M. Egnatius Calvinus* governour of the parts about the Alpes, reporteth, that hee hath seene there the Ibis, a bird proper to the land of Ægypt.

Chap. xlix.

☞ *Of new birds, and such as are holden for fabulous.*

DVring the civile warres betweene *Otho* and *Vitellius*, and namely, about the time of the journey or battell at Bebriacum, beyond the Po: there were these new-birds (for so they be called still at this day) brought into Italie. Like they be to Thrushes or Mavisses, somewhat lesse than Housedoves, pleasant in the eating. The Baleare Islands sends us another Porphyrio, better than that *beforenamed. Where the Buzards also, a kind of Hawke, are held for excellent meat, and served up at the table. Likewise the Vipio, for so they call the lesse kind of Crane. As for the foules called Pegasi, headed like horses; and the Griffons, which are supposed to have long eares, and a hooked bill, I take them to bee meere fables: and yet they say, that the Pegasi should be in Scythia, and the Griffons in Æthyopia. Moreover, I thinke the same of the Tragopanades, which many men affirme to bee greater than the Ægle; having crooked hornes like a Ram on either side of the head, of the colour of yron, and the head onely red. As touching the birds Syrenes, I will never beleeve there be any such, let *Dino* the father of *Clitarchus* that renowmed writer, say what he will: who avoucheth for a truth, that they be in India: and that with their singing they will bring folke asleepe, and then flie upon them and teare them in peeces. He that will give credite to these fables, may even as well beleeve that dragons forsooth taught *Melampus* by licking his eares, how to understand the language of birds when they chaunt and sing upon trees, or crie and chirpe in the aire: likewise the tales that *Democritus* telleth, who nameth certain birds, of whose bloud mingled together, and suffered to corrupt, there is engendered a serpent, which whosoever eateth, shall know what birds say one to another in their speech: and namely, the strange things that hee telleth of the Larke above the rest. For verily without these fabulous lies, mens heads be occupied ynough, and too much to, about the Auguries onely and presages of birds; that they have no need to busie and trouble their braines about these toies. *Homer* maketh mention of certaine birds called Scopes: but I cannot conceive those Satyricall gesticulations of theirs like Antikes when they are perched, which so many men talke of: neither doe I thinke otherwise, but that these birds are out of knowledge nowadaies. And therefore better it is farre to write of those which we know.

Chapter 46.

Chap.

Chap. L.

Who firſt deviſed to cram Hens. Who invented Mues and Coupes to keepe foule in.

THey of the Iſland Delos began the cramming of Hens and Pullein firſt. And from them aroſe that deteſtable gourmandiſe and gluttonie to eat Hens and Capons ſo fat and enterlarded with their owne greaſe. Among the old ſtatutes ordained for to repreſſe inordinate feaſts, I find in one act made by *C. Fannius*, a Conſull of Rome, eleven yeares before the third Punicke warre, an expreſſe prohibition & reſtraint, That no man ſhould have his table ſerved with any foule, unleſſe it were one Hen, and no more, and the ſame a runner onely, and not fed up and crammed fat. The braunch of this one ſtatute was afterwards taken forth and inſerted in all other acts provided in that behalfe, & went currant through all. Howbeit, for all the law ſo well ſet down, there was a ſtarting hole found to delude and eſcape the meaning therof, namely, to feed Cockes and Capons alſo with a paſt ſoked in milk & mead together, for to make their fleſh more tender, delicate, and of ſweeter taſt: for that the letter of the ſtatute reached no farther than to Hens or Pullets. As for the Hens, they onely bee thought good and well ynough crammed, which are fat about the necke, and have their skin plumpe and ſoft there. Howbeit, afterwards our fine cookes began to looke unto their hind-parts about the rumpe, and chuſe them thereby. And that they ſhould make a greater ſhew in the platter, they ſlit them along the chine, and lay their legs out at large, that they might take up the whole dreſſer bourd. The Parthians alſo have taught our cooks their own faſhions. And yet for all this fine dreſſing and ſetting out of meat, there is nothing that pleaſeth and contenteth the tooth of man in all reſpects; whiles one loveth nothing but the leg, another liketh and praiſeth the white brawne alone, about the breaſt bone. The firſt that deviſed a Barton and Mue to keepe foule, was *M. Lenius Strabo*, a gentleman of Rome, who made ſuch an one at Brindis, where he had encloſed birds of all kinds. And by his example we began to keep foules within narrow coupes and cages as priſoners, to which creatures Nature had allowed the wide aire for their ſcope and habitation.

Chap. LI.

Of Æſopes proud platter.

BVt in the relation and report of this argument, notorious above all the reſt in our memorie is that platter of *Clodius Æſopus*, the plaier of Tragedies, which was eſteemed worth * ſixe hundred Seſtertia. In this one charger he ſerved up at the bourd all kind of birds that either could ſing or ſay after a man: and they coſt him ſixe hundred Seſterces apeece. And ſurely it was no delight and pleaſure that he ſought herein to content the tooth, but only that he would have the name to eat the reſemblers of mans voice: without any conſideration and regard that hee had of all that great riches and revenues of his owne, which himſelfe had gotten by his tongue, and by counterfeiting the ſpeech of others. A father verily worthie ſuch a ſon, who, as we ſaid before, devoured thoſe precious pearles. And to ſpeake a truth, it is hard to judge whether of them twaine plaied the beaſt more, the father or the ſonne. But that it ſeemeth leſſe pride and prodigalitie to ſwallow downe the throat the greateſt riches of Nature, than to chaw and eat at a ſupper mens tongues, that is to ſay, thoſe birds that could pronounce our language.

* 1,600000 Seſtertij, 150000 deniers.

Chap. LII.

The engendring of birds: and what foure-footed beaſts lay egges as well as they.

THe generation of birds ſeemeth alwaies to bee after one and the ſame manner. And yet therein is to be found ſome ſtraunge and extraordinarie worke. Like as there be four footed beaſts knowne alſo to have egs, namely, the Chamæleons, Lizards, and ſuch as we named among Serpents. Of foules, thoſe that have hooked clawes and tallons, are but barren that way, and lay few egs. Only the Keſtrell laieth foure at a time. And verily Nature hath well provided in all the kind of foules, That the mightier ſhould be leſſe fruitful than the weaker and thoſe that flie from the other. The Oſtriches, Hens, Partridges, and Linnets, are great laiers. As touching

ching the manner of their engendring, it is perfourmed two waies: for either the female coucheth downe, as doe our hens; or elſe ſtand up on their feet, as doe the cranes. Of egs, ſome be white, as thoſe of Doves and Partridges; others, be pale and yellowiſh, as thoſe of water-foule: ſome be ſpotted, as thoſe of the Turkie-hens: others againe red; and ſuch egs Feaſants lay, and Keſtrils.

All birds egges within the ſhell, are of two colours. In water-foules, the yolke is more than the white, and the ſame is more wan and duskiſh than in others. The egges of fiſhes are of one colour, and therein is no white at all. Birds egges are brittle ſhelled, by reaſon of their heat. Serpents egges are more tough becauſe of cold: but they of fiſhes are more ſoft and tender, for that they be ſo liquid. Thoſe of fiſhes and ſuch creatures as live in water, have round egges ordinarily: others be long and pointed at one end in the top. Birds lay their egges with the rounder end comming forward: their ſhell is ſoft whiles they be warme and a laying, but preſently they harden by peecemeale as they come forth. *Horatius Flaccus* is of opinion, that the longer the egge is, the better taſt it hath. The rounder egge prooves to be the hen commonly, the reſt will be cockes. There is found in the * top or ſharper end of an egge within the ſhell, a certaine round knot reſembling a drop or a navill, riſing above the reſt, which they call a Kinning.

* Or rather, in the crown and broader end, as our wives ſay.

Chap. liii.

The engendring of egges: the ſitting of birds, and their manner of generation.

SOme birds there be, that tread all times of the yeare; and lay egs but only two moneths in mid winter: and of thoſe, pullets lay more than old hennes, but they be leſſe, eſpecially the firſt and laſt of one laiter. So fruitfull they be, that ſome of them will lay threeſcore egs ere they give over: ſome, everie day; others, twice in one day: and ſome will over-lay, untill they be ſo wearie and feeble withall, that they will never lay more, but die withall. The little ſhort legged grig hens, called Hadrianæ (that came from Hadria) are counted beſt. Doves lay and couvey ten times in the yeere, ſome of them eleven: and in Ægypt there are found that give not over in the twelvemoneth, even at mid-winter in December. Swallowes, Ouſels, Quoiſts or Ringdoves, and Turtles, lay and ſit twice in the yeare: other birds ordinarily but once. Thruſhes and Blackbirds build their neſts of mud and clay, in trees and buſhes one by another, ſo neere as if they were linked togither: and lightly they engender in ſome corner out of the way. After the hen is troden, within ten daies commonly the egs knit within her bellie, are come to perfection and readie to be laid. Howbeit if hens have ſome wrong done unto them, or if a man chaunce to pluck a feather or quill from a pigeon at that time, or doe them ſome ſuch injurie, it will bee longer ere they lay.

All egges have within them in the mids of the yolke, a certaine drop as it were of blood, which ſome thinke to be the heart of the chicken, imagining that, to bee the firſt that in everie bodie is formed & made: and certainly a man ſhall ſee it within the very egge to pant and leape. As for the chick, it taketh the corporall ſubſtance, and the bodie of it is made of the white wateriſh liquor in the egge: the yellow yolke ſerveth for nouriſhment: whiles the chick is unhatched and within the egge, the head is bigger than all the bodie beſides: and the eies that be compact and thruſt togither, be more than the verie head. As the chick within groweth bigger, the white turneth into the mids, and is encloſed within the yolke. By the twentie day (if the egs be ſtirred) ye ſhall heare the chicke to peepe within the verie ſhell: from that time forward, it beginneth to plume and gather feathers: and in this manner lieth it within the ſhell, The head reſting upon the right foot, and the ſame head under the right wing: and ſo the yolke by little and little decreaſeth and faileth. All birds are hatched with the feet forward, contrarie to other creatures. Some hens there be, that lay all their egs with two yolkes; and of them be hatched two chickens otherwhiles, as *Cornelius Celſus* writeth: but the one of them is bigger than the other. Howbeit, others ſay, it is impoſſible that of one egge ſhould come two chickens. Moreover, it is held for a rule, that there ſhould not be put under a brood-hen above 25 egs at one time to ſit upon. After the midwinter, hens begin to lay and ſit. The beſt brood is before the ſpring Æquinoctiall. Thoſe that be hatched after midſummer, never come to their full and kind bigneſſe: and evermore the later the leſſer.

Chap.

Chap. liiii.

The infirmities and impediments incident to Brood-hens, and the remedies.

THe beſt egges that can be put under hens when they ſit, are thoſe that were laid ten daies before at the utmoſt: for neither old egs, nor yet verie new laid, be good for that purpoſe. After that the hen hath ſitten foure daies, take an eg from under her, hold it in one hand by the narrow end, and look between you and the light with the other over it; if it be clear through and of one colour, it is ſuppoſed to be naught and will never proove a chicke, and therefore put another in place therof. Another experiment there is by water: The addle egge will flote above; as emptie; the ſound and good, will ſinke to the bottome: and ſuch therefore being full, are to be ſet under the hen. When ye would try whether an egge be good or bad in this caſe, our country wives ſay, you muſt not ſhake them in any hand, for if the vitall veines and parts be broken and blended togither, they will never proove. Moreover, this muſt alwaies be looked unto, that yee begin to ſet an hen after the change of the moone: for if you ſet her in the waine, the egges will be addle and never come to be chickens. The warmer that the weather is, the ſooner will ſhe hatch: and therefore it falleth out, that in ſummer ye ſhall have her abroad with her brood upon the nineteenth day; in winter many times it wil be 25 daies firſt. If it thunder while ſhe is broodie, the egges will proove addle: yea and if the hen chaunce but to heare an hawke crie, they will be marred. The remedie againſt thunder, is to put an iron naile under the ſtraw of the hens neſt, or elſe ſome earth newly turned up with the plough. Over and beſides, there be ſome egs that will come to be birds without ſitting of the hen, even by the worke of Nature onely, as a man may ſee the experience in the dunghils of Ægypt. There goeth a pretie jeaſt of a notable drunkard of Syracuſa, whoſe manner was when he went into the taverne to drinke, for to lay certaine egges in the earth, and cover them with mould: and hee would not riſe nor give over bibbing, untill they were hatched. To conclude, a man or woman may hatch egges with the very heat onely of their bodie.

Chap. lv.

The Anguries and Preſages of Eggs.

LIvia Auguſta the Empreſſe, wife ſometime of *Nero*, when ſhe was conceived by him, and went with that child [who afterwards prooved to be *Tyberius Cæſar*,] beeing very deſirous (like a young fine ladie as ſhe was) to have a jolly boy, practiſed this girliſh experiment to foreknow what ſhe ſhould have in the end: Shee tooke an egge, and ever carried it about her in her warme boſome, and if at any time ſhe had occaſion to lay it away, ſhe would convey it cloſely out of her owne warme lap unto her nources, for feare it ſhould chill. And verily this preſage prooved true: the egge became a cock-chicken, and ſhe was delivered of a ſonne. And hereof (it may well be) came the deviſe of late, to lay egs in ſome warme place, and to make a ſoft fire underneath of ſmall ſtraw or light chaffe to give a kind of moderate heat; but evermore the egs muſt be turned with a man or womans hand, both night and day; and ſo at the ſet time, they looked for chickens and had them. It is reported beſides of a certaine poulter, who had a ſecret by himſelfe, wherby he could tell ſurely and never miſſe, which egge would be a cock-chicken, which a hen: alſo of many hens that hee kept, which was every hens egge if he did but ſee it. We have heard moreover, that when a brood-hen chaunced to die, the cockes that uſed to tread her, were ſeen to go about with the chickens one after another by turnes, and to doe every thing like to the very hen indeed that hatched them: and all that while to forbeare once to crow. But above all it is a ſport alone, to ſee the manner of an hen that hath ſitten upon ducks egges and hatched them, how at the firſt ſhe will wonder to have a teeme of ducklings about her, and not acknowledge them for her owne: but ſoone after, ſhe will clucke and call this doubtfull brood to her, verie carefully and diligently: but at the laſt, when ſhee perceiveth them (according to their kind) to take the water and ſwim, how ſhe will mourne and lament about the fiſh-poole, that it would pitie ones heart to ſee them what mone they will make.

Chap.

Chap. lvi.

❧ *Which be the best Hens.*

A Man shall know a good and kindly hen by her comb, when it is streight and upright: otherwhiles also double crested: also by the pinion feathers blacke; the upper plume reddish. Such a hen will be red also about the head and bill; and have an odde toe to her feet: yea and sometime that odde one to lie crosse overthwart the other foure. In case of sacrifices and religious use, they are not thought good nor allowable, which have becke and feet, yellow. For divine service and secret mysteries celebrated in covert to the goddesse *Ops*, the black are allowed for good. There is also a dwarfish kind of * hens, that are extraordinarie little, and yet fruitfull; (a thing not seene in any other kind of foule) they lay and misse not, but sildome sit they on any egs: and if they doe, it is hurtfull for them.

* Grig-hens.

Chap. lvii.

❧ *The maladies that hens be subiect unto, and the remedies.*

THat which troubleth all the kind of them, is a certaine distillation of a phlegmaticke humour, which causeth the pip; and most of all between harvest time and vintage. The cure is, to keepe them hungrie and long fasting: also to let them lie or perch in a smokie place, especially where the fume is made of bay leaves, and the hearb Savine. It is good moreover, to draw a little quill or feather through their nosthrils acrosse; and to remoove or shift it every day. As for their meat, let it be some cloves of garlicke shred among their corn, or else let their meat be well infused and steeped in water, wherein an owle hath washed and bathed her selfe; or else sodden with the seed of Brionie, or the wild white vine: besides such other medicines as are daily in use.

Chap. lviii.

❧ *The manner how foules doe conceive, and what number of young ones they commonly doe hatch.*

DOves have this propertie by themselves, to bill one another and kisse before they tread. They doe lay for the most part two egges. Thus Nature hath disposed, that some should breed often, and few: others, should hatch many togither at once. The Ringdoves or Quoists, and Turtles, ordinarily doe lay three egs; and lightly they sit and hatch but twice a yeer: and that is, if their first brood came not to perfection, but miscarried and was not reared up. And albeit they lay three egges, yet they never hatch but twaine: the third that is addle, they call in Latine *Vrinum*. The female Ringdove sitteth ever from noon untill the next morning; the male maketh up the rest of the day. House-doves breed evermore one cocke pigeon, and another hen. The male is hatched to day, and the female to morrow. In that kind they sit both, the cocke all day, and the hen by night: and usually upon the twentieth day they hatch. They lay within five daies after they be troden. And in summer time verily, yee shall have them in the space of two moneths bring three paire of pigeons; for then they use to hatch by the 18 day: and presently they conceive againe. So that a man shall oftentimes find new-laid egges even among the yong pigeons: and otherwhiles it is seen, that whiles some are readie to flie, others peepe newly out of their shell. And these young birds, within five moneths will laie themselves. Now the nature of these hen-doves is (if they want a cocke) to tread one another, and hereof they come to laie barren egges, whereof nothing will be engendred: and such the Greekes call Hypenemia, *id est*, wind-egges.

Chap. lix.

❧ *Of the Peacocke, and Geese.*

THe Pea-hen falleth to laie and breed after she is three yeeres old. In the first yeere, she begins with one or two egs: the yeere following, she riseth to foure or five: in the rest, she reacheth to twelve and no more. When she laieth, her manner is to rest two or three daies between everie egge. And thrice a yeare she doth keepe this order, namely, if her egges be taken

from

from her, and put under hens for to be sitten upon: for why, the Peacockes will breake them if they can meet with them, because they cannot misse and spare the Peahens companie whiles they are broodie and sitting: which is the cause that they are wont to lay by night, or in some secret corner out of the way, and that from an high place where they pearch: and then, unlesse there be good heed taken that the egges be latched in some soft bed underneath, they are soone broken. One Peacocke is sufficient to goe with five wives: for when there is but twaine [the villaine is so leacherous] with overmuch treading he hindereth their laying, and marreth the knot of egges which is engendred within them. The Peahen doth hatch in 28 daies, or in thirtie at the fartheſt.

Ganders and Geese engender togither in the very water. Geese lay ordinarily in the spring: or if they were troden about mid-winter, then ye shall have them lay after the winter Sunsteed, some fortie daies or very neere. They have usually two laiters in the yeere, namely, if hens hatched their former egges. The most that they hatch at one sitting, is sixteen; and the fewest, seven. If a man steale their egges from them, they lay still, and never give over till they be ready to burst with laying. No birds egges but their own will they hatch. The most profitable way, is to set them upon nine or eleven. The females onely sit, and that for the space of thirtie daies, unlesse it be warme weather, and then they will have done by 25. If one of their goslings be stung never so little with a nettle, it will die of it. Their owne greedie feeding also is their bane; for one while they will eat untill they burst againe, another whiles kill themselves with straining their owne selves: for if they chaunce to catch hold of a root with their bill, they will bite and pull so hard for to have it, that many times they breake their own necks withall, before they leave their hold. Against the stinging of nettles, the remedie is, that so soone as they be hatched, there be some nettle roots laid under their nest of straw.

Chap. lx.

Of Herons and Bittours: and the best way to keepe egges long.

OF Herons be three sorts, *Leucon, *Asterias, and *Pellon. These last engender with much paine and difficultie. And as for the males verily, they crie againe for anguish, and the blood starts out of their eyes in the act of treading. And with as much adoe and trouble doe the females lay, after they be knit with egge. The Ægle and the most part of greater fouls, sit thirtie daies: whereas the lesse continue but twentie, as the Kite and the Hawke. The Kite usually hatcheth but one at a time, and never above three: but that kind which is called Ægolios, sometimes foure. The Raven also now and then, five: and those coove as many daies. Whiles the female Crow sitteth, the male feedeth her. The Piot, ordinarily bringeth foorth nine Piannets: the fig-pecker Melancoryphus, above twentie, but evermore an odde one: and there is not a bird that goeth therin above her. Lo how Nature is willing to multiply the race of little birds! The young Swallowes are at the first, blind, and so are all such as are hatched many in number. Wind-egs, which we call Hypenemia, come either by the mutuall treading of hens one another, by an imaginarie conceit of the male, or els by dust. And such egs not only Doves do bring, but house Hens also, Partridges, Peahens, Geese, and Brants, or the female Barganders. Now these egs are barren as one would say, and never proove birds, lesse than others, not so pleasant in tast, and besides more moist. Some are of opinion, that the wind will engender them: for which cause also they are called Zephyria [i. West-wind-egs:] and verily such egs are seen only in spring, when that wind bloweth. Addle egges, which some called Cynosura, are they that chill upon the nest, when the hen is gone and giveth over sitting. Egges steeped in strong vinegre will come to be so soft, that they will passe and be drawne through the ring of a mans finger. The best way to keepe egs, is in bean-meale or floure; and during winter, in chaffe; but for summer time, in bran. It is thought, if they lie in salt, their substance will wast and consume to nothing within the shell.

* A Criell, or dwarfe Heron.
* A Bittor.
* A carion Heron.

Chap. lxi.

What bird alone bringeth forth a living creature, and feedeth it with milke.

THe Reremouse or Bat, alone of all creatures that flie, bringeth forth young alive: and none but she of that kind hath wings made of pannicles or thin skins. She is the onely bird that

ſuckleth her little ones with her paps, and giveth them milke: and thoſe ſhe will carrie about her two at once, embracing them as ſhe flieth. It is ſaid alſo, that ſhe hath no more but one joint of the haunch, without any in the knee or feet; & that they take greateſt delight to feed upon gnats.

Chap. lxii.

Of Vipers: their manner of generation and bringing forth young: and what land beaſts doe lay egges.

MOreover, among creatures of the land, Serpents lay egges: whereof as yet we have not written. As they engender togither, they clip and embrace, and ſo entangled they be and enwrapped one about the other, that a man who ſaw them, would thinke they were one ſerpent with two heads. In the very act of generation, the male thruſteth his head into the mouth of the female; which ſhe (for the pleaſure and delectation that ſhe taketh) gnaweth and biteth off. No land creature els but ſhee hath egs within her bellie, of one colour and ſoft, like as fiſhes have. Now after three daies they be quick, and then come forth as they be hatched; but no more than one at once everie day: and twentie commonly ſhe hath. When ſhe is delivered of the firſt, the reſt (impatient of ſo long delay) eat through the ſides of their dam, and kill her. As for other ſerpents, they lay their egges linked and chained togither, and ſo ſit upon them on the land: but they hatch them not untill the yeere following. The Crocodiles ſit by turnes, the male as well as the female. But I thinke it good to treat alſo of the generation of other land creatures.

Chap. lxiii.

The generation of living creatures upon the land.

OF all living creatures two-footed, a woman only bringeth foorth her young quicke. Men and women both, and none but they, repent at firſt the loſſe of their maidenhead. A very preſage (no doubt) of a life to enſue full of trouble and miſerie, that thus ſhould begin with repentance. All other creatures have their ſet times and certaine ſeaſons in the yeare when they engender, as hath been ſhewed before: but all is one with us, and no houre of day or night comes amiſſe. Other creatures know when they have enough, and reſt ſatisfied: we only are inſatiable that way, and cannot ſee to make an end. The Empreſſe *Meſſalina*, wife of *Claudius Cæſar*, thinking it the onely victorie for a Ladie and Queene to excell in this feat, choſe the moſt gallant curtiſan and commoneſt ſtrumpet in all Rome, to trie maſteries and to contend with for the beſt game: and in verie truth, ſhe woon the prize: for in the ſpace of 24 houres ſhe outwent her [a beaſtly thing to be written] no fewer than 25 times. As for men, they have deviſed in the practiſe of this filthie act, even to abuſe ſome parts againſt kind: and women (unnaturall as they be) haue the caſt to deſtroy within them the unripe and untimely fruit of their owne bodie. Certes in this behalfe, how much worſe and hurtfull be we, than the wild & ſavage beaſts of the field? *Heſiodus* writeth, that men are more given to luſt in winter, than in ſummer; and women contrariwiſe. Elephants, Camels, Tigres, Onces, Rhinoceros, Lyons, Hares, Cunnies, and generally all beaſts which have their genitall parts from-ward, turne taile to taile to the female in the act of generation. As for Camels, they go into the deſert, or at leaſtwiſe ſeeke ſome corner, when they would engender: and daungerous it is for one to take them in the manner. They continue in this action one whole day togither: and ſo doe none els that are whole hoofed. In foure-footed beaſts, the males are ſet into the heat of luſt by ſenting and ſmelling. Dogs and Bitches, Seales, and Wolves, likewiſe turne away, and in the mids of the action bee tied one to the other, even againſt their wills and cannot helpe it. The females of the moſt of theſe before named, begin to ride the males firſt, for to provoke their luſt: but of the reſt, the males leape the females at the firſt. Beares (as we ſaid before) lie along both, as man and woman. Hedgehogs ſtand both upright and claſpe one another when they engender. The hee-Cat ſtandeth on his feet, and the ſhee lieth under him. Foxes lie upon their ſides, and ſo the bitch embraceth the male Fox. Kine and Hinds cannot well endure the violence of the Bulls and the Stags in this buſines, and therefore they are ever going when they doe engender. Stags go from one Hind to another, and then come againe to the firſt; and this doe they in courſe. Lizards, as all other creeping creatures that have no feet, wind one about another as they engender. The greater that any beaſts be, the leſſe

fruitfull

fruitfull they are of their bodie. Elephants, Camels, and Horſes, get but one at once, neither do the females beare any more at a time: whereas the Goldfinch or Linnet, a verie little bird, bringeth forth a dozen commonly at once. Such as bring moſt, are leaſt while in breeding. The greater that any creature is, the longer time it requireth to be formed in the mothers wombe. And ſuch as live long, be longer alſo ere they have their perfection and come abroad into the world. The growing age is not meet for generation. Beaſts that are whole houfed, never bring but one at a time: ſuch as be cloven footed in twaine, may alſo have twins. But as many as have their feet parted and divided into many toes, are fit to beare many at ones. And whereas all the former rehearſed, bring forth perfect creatures with all parts, ſome have their young ones imperfect and but halfe made: in which number Lioneſſes, ſhe Beares, bitch Foxes, are to be reckoned: but ſpecially the ſhee Beares, whoſe whelpes are more unſhapen than the reſt: and a rare thing it is to ſee them a whelping. Howbeit ſuch females when they are delivered of them, with their licking do chafe and heat them, and ſo by little and little bring them to ſome forme and faſhion by this meanes. Such for the moſt part beare foure whelpes. As for Bitches, Wolves, Panthers, and Thoes, kindle their young before they can ſee.

Of Dogges and Bitches there be many kinds. They of * Laconia, as well the male as the female, be apt to engender after they be eight moneths old. They be with whelpe threeſcore daies and three, ordinarily. As for other Bitches, they goe proud at ſixe moneths, and may be lined. They be all the ſort of them, ſped at the firſt lining. Bitches that goe aſſaut and take the dog before the full time, namely when they be verie young, ſuch bring a litter that will be longer ere they ſee: neither go they: but all the whelpes will not be blind ſo many daies. Dogs commonly when they be halfe yeere old, are thought to lift up their leg when they piſſe; and that is a ſigne they are come to their full ſtrength and perfection: but bitches all that time piſſe ſitting upon their buttocks. They have twelve whelpes when they bring moſt, but ye ſhall ſee them commonly with a litter of ſixe or five: and ſometime they come with juſt one, but that is thought to be a prodigious ſigne; as alſo if the whelpes be all Dogges, or all Bitches. The firſt uſually that they whelpe, be Dogs; for the reſt, they be one with another, a Dog and a Bitch: namely, if they were lined in the due ſeaſon, and at the juſt moneth. And commonly they go proud ſixe moneths after their former litter. The Bitches of Laconia ordinarily bring eight at a time. The Dogs of this race have a propertie with them, that the more they be travailed, the more luſtie and freſh they are, yea and the hotter after ſalt-bitches. They live ten yeares, and the Bitches twelve. Of other kinds, ye ſhall have them continue fifteen yeares, yea and otherwhiles twentie: but they engender not ſo long, but give over commonly at twelve.

* Reſembling our Engliſh maſtives.

Cats and Rats of Inde, called Ichneumones, in all other reſpects follow the nature of Dogs, ſave that they live but ſix yeares. Conies kindle everie moneth, and albeit they be bagged, yet will they take the bucke againe, and conceive upon it; like as the Hares alſo will doe the ſame: for as ſoone as ever they have kindled, they go to bucke and are preſently ſped: and ſay that the Leverets or Rabbets lie ſucking at them, yet will they be with yong. When they be new kindled, they cannot ſee.

Elephants (as wee have alreadie ſaid) never bring but one at once, and that commonly is as bigge as a Calfe a quarter old. Camels goe a whole yeare. After they be three yeares old, they are ſufficient for to engender: and commonly they come in the ſpring: and it is a yeare after before they be covered againe. As for Mares, if there be three daies betweene, or but one, after they have foled, it is thought they may verie well be covered againe; yea and they are brought perforce to the ſtallion for this purpoſe. It is ſuppoſed alſo, that the ſhee Aſſe within ſeven daies after, will ſooneſt conceive. It is a rule, to ſhare and clip a Mares maine, before ſhee will abide the covering of an Aſſe, ſo vile and baſe a beaſt: for ſo long as the haire of her maine is well growne, ſhee is ſo proud and glorious, that ſhee will not abide the Aſſe to come neare her. So ſoone as they be covered and ſped, they run full into the South or the North wind, according as they be conceived either with male or female: a thing that no other beaſt beſides, doth. And then, ſuddainly they chaunge their colour; for their haire will be redder, or at leaſtwiſe fuller and deeper, what colour ſoever it be. By which ſigne it is knowne they are with fole, and then they will admit no ſtallions unto them, would they never ſo faine. And ſay, that ſome of them have foles running by their ſides, they will doe their deed at worke nevertheleſſe: nay when they be with fole, they will labour as well as they did before: in ſo much, as many

times they ſteale a foling, before their maiſter beware that they are with fole. We have read in Chronicles, that *Echecratides* the Theſſalian had a Mare, which even then when ſhee was gone farre with fole, woon the beſt game in the Olympian race. They that have ſought more narrowly into the ſecrets of Nature, ſay, That ſtone-Horſes, Dogs, and Bores, deſire the females in a morning: but Mares, Bitches, and Sowes make meanes to the male after noone. Mares that are kept within houſe at racke and manger with hay and provender, deſire to be covered three-ſcore daies before thoſe that goe abroad in the heard. Swine alone of all creatures when they be brimming, froth and fome at the mouth. And as for the Bore, if he heare the grunting of a Sow that ſeekes to be brimmed, unleſſe he may come to her, will forſake his meat, untill he be leane and poore: and ſhe againe will be ſo farre enraged, that ſhe will be readie to run upon a man and all to teare him, eſpecially if his cloths be white. But this rage and woodneſſe of hers is aſſuaged and allaied, onely with bathing her ſhare behind with vineger. Some thinke there be certaine meats will provoke beaſts to fleſhly luſt, namely, Onions given in meat to a beaſt; like as Rocket to a man or woman. Moreover, it is ſuppoſed, that whatſoever is made tame, which by kind was wild, the ſame will not breed, as Geeſe and Ganders. In like manner, wild Swine and red Deere, if they be tamed; or if they doe, it is very long firſt: and ſuch onely as were brought to hand even from the time that they were very young. Finally, this one thing is ſtraunge and wonderfull, that all foure-footed beaſts, ſave onely the Mare and the Sow, if they find themſelves to be with yong, drive the male from them. But the Connie and the Hare alone will conceive againe when they be gone with young.

Chap. lxiiii.

The varietie in living creatures, as touching their comming into the world.

WHatſoever have quicke creatures within them, bring the ſame forth with the head forward. For when the time is come, the young thing turneth about a little before, which otherwiſe lay ſtreight out at length in the bellie. Fourefooted beaſts, whiles their dams goe with them, lie with their legs ſtretched along, cloſe unto their owne bellies. An infant whiles it is in the mothers wombe, gathereth round into a ball, and hath his noſe lying juſt betweene his two knees. As for falſe conceptions or Moone-calves (whereof wee ſpake before) ſome thinke they are engendred of the womans ſeed onely: namely, when ſhee is not conceived by a man, but by her ſelfe: and hereupon it is, that the ſaid conception hath no vitall nor animall life, becauſe it proceedeth not of the conjunction of male and female both. True it is, that it is endued with a certaine vegetative power, to bee nouriſhed and to grow, like as wee ſee in trees and other plants.

Chap. lxv.

The breed of Mice and Rats.

OF all creatures that bring foorth their young perfect, Swine onely farrow one Pig and two Pigs at a time, yea, and ſometimes a number of them. Alſo they alone contrarie to the nature of all thoſe that either be whole hoofed, or cloven footed in twaine, bring a number of young ones at one farrow. But above all, Mice and Rats for fruitfulneſſe doe paſſe. And therefore I cannot put off the diſcourſe of them any longer: and yet therein I muſt follow *Ariſtotle* for mine author, and the report withall of the ſouldiours that ſerved under *Alexander* the great. It is ſaid that they engender by licking, without any other kind of copulation: and that one of them hath brought ſixe ſcore at a time: alſo that in Perſia there have been young Mice found with young, even in the bellie of the old dam. And ſome are of opinion, that they will bee bagged, if they taſt but of a little ſalt. Why ſhould wee then wonder any more how ſuch multitudes of field-Mice and Rats ſhould come to devour whole fields of corne? Howbeit, the reaſon is not yet knowne, how ſuch numbers of them ſhould all of a ſuddaine conſume away and come to nothing. For neither bee they found lying dead above ground, neither can any man come forth and ſay, that hee hath turned up any one with his ſpade as hee digged in the Winter. The countrey of Troas is exceedingly given to breed great ſtore of them, inſomuch, as they have forced alreadie the inhabitants to abandon the place and depart. Men ſay, that the ſeaſon proper

and

and agreeable for their breeding in such abundance, is a great drought: also, that when they are toward their end, there be little wormes breeding in their heads that kill them. The Mice and Rats of Ægypt have hard haire and prickie, like to Hedgehogs. They goe also upright on their hinderfeet, and walke like as if they were two-footed: after the manner of those in the Alpes. Moreover, if beasts of diverse kinds doe engender together, they may well breed young betweene them, in case they doe agree and jumpe in the time, that the females of both should go with young. It is commonly thought and beleeved, that among foure footed beasts the Lizard hath egges within her, and delivereth them at her mouth, but *Aristotle* denieth it flatly. Howbeit, they sit not upon them when they have so done, as being forgetfull where they laid them, so little or no memorie at all have they. And therefore the young Lizards of themselves breake forth out of the shell.

Chap. lxvi.

Of a Serpent engendred of the marrow of a mans backe bone.

I Have heard many a man say, that the marrow of a mans backe bone will breed to a Snake. And well it may so be: for surely there be many secrets in Nature to us unknowne, and much may come of hidden causes, as we may see even among foure footed beasts.

Chap. lxvii.

Of the Salamander.

AS for example: the Salamander made in fashion of a Lizard, marked with spots like to starres, never comes abroad and sheweth it selfe but in great showers; for in faire weather he is not seene. He is of so cold a complexion, that if hee doe but touch the fire, hee will quench it as presently, as if yce were put into it. The Salamander casteth up at the mouth a certaine venomous matter like unto milke: let it but once touch any bare part of a man or womans bodie, all the haire will fall off: and the part so touched will change the colour of the skin to the white morphew.

Chap. lxviii.

Of those that breed of others which never were engendred. Also of those that being engendred, yet breed not.

SOme creatures there be that breed of those that never were engendred themselves; and yet not according to those naturall meanes as others which we have shewed before: and such also as either the Summer or Spring, or some certaine season of the yeare doe breed. Among which, some engender not at all, as the Salamanders: * for there is no distinction of sex in them no more than in Yeeles, and in all those which neither lay egs, ne yet bring forth any living creature. Oisters likewise and all such creatures as cleave fast either to rocks or to the shelves, are neither male nor female. As for such as come of themselves, if there be seen in them any distinction of male and female, something verily they engender betweene them: but an unperfect creature it is, and not resembling them: neither doth that generation breed ought any more, as wee see the flies that doe engender certaine little wormes. The experience hereof is better to bee observed in those creatures which bee called Insects: whose nature is hard to bee expressed, and yet I have appointed a severall treatise for them apart. Wherefore I will go forward in the discourse begun alreadie, and namely, as touching the sence and understanding of the fore-named creatures, and then proceed to the rest.

* Which is found untrue by experience.

Chap. lxix.

The outward sences of living creatures.

MAn excelleth all other creatures, first in the sence of feeling, and then of tasting: In the rest, many beasts goe beyond him. For the Ægles have a clearer eiesight; the Geires a finer smell; and the Moldwarpes, notwithstanding they bee covered over with earth (so

heavie, ſo thicke, and deafe an element as it is) yet their eare is farre better than ours. Moreover, albeit the voice of all them that ſpeake above ground doe aſcend upward ſtill from them, yet hear they when they talke: yea, and if a man chaunce to ſpeake of them, ſome hold, that they underſtand their ſpeech, and thereupon doe flie from them. A man, who at firſt lacketh his hearing, wanteth alſo the uſe of his tongue: neither are there any deafe borne, but the ſame likewiſe bee dumbe. A man would not thinke, neither is it likely, that the Oiſters in the ſea doe heare: and yet upon any noiſe and ſound, their manner is to ſinke downe to the bottome. And therefore when as men doe fiſh for them in the ſea, they are as ſilent as they may be.

Chap. lxx.

A diſcourſe, That fiſhes both heare, and alſo ſmell.

FIſhes verily have no eares, ne yet any holes to ſerve for hearing: and yet plaine it is, that they doe heare. Which we may daily ſee in certaine fiſh-ponds and ſtewes where fiſhes bee kept: for when thoſe that have the charge of them make a noiſe with clapping of their hands: as wild as they bee otherwiſe, they ſhall have them come by great flockes to take their meat that is throwne into them: and this are they wonted to doe daily. And that which more is, in *Cæſars* fiſh-pooles a man may ſee whole skuls of fiſhes to repaire at their call: yea, and ſome will ſever themſelves from the reſt of their companie, and come alone to hand, when they be named. Hereupon it is, that the Mullet, ſea-Pike, Stockfiſh, and Chronius, are thought to heare beſt of all others, and therefore live very ebbe among the ſhelves and ſhallowes. That fiſhes have the ſence of ſmelling, it is manifeſt. For they are not all taken, nor yet delighted with one kind of bait: and this is obſerved, that before they bite they will ſmell to it. Some alſo there bee that lie in holes under rockes: and no ſooner hath the fiſher beſmeared and annointed the mouth and ſides of the ſaid rockes in the very entrance to their holes, but he ſhall ſee them come foorth (as it were) to avoid the ſent of their owne carion. Let them lie in the very deepe, yet will they reſort to certaine odors and ſmels, namely, to the Cuttill burnt and the Polype, which for that purpoſe they uſe to put into their neſts. And verily they cannot abide the ſmell of the ſinke and pumpe of a ſhip; neither will they come neere unto it: but above all things, they may not away with the bloud of fiſh. The Pourcuttell hardly or not at all can be pulled from the rockes, ſo faſt cleaveth he: howbeit, come neere unto him with the hearbe Marjarum or Saverie, he will preſently leape from the rock and away, for to avoid the ſent thereof. Purples alſo bee caught by the meanes of ſome ſtinking K bait. And for other creatures, who doubteth but they have a perfect ſmelling? Serpents are chaſed away with the ſmell and perfume of the Harts horne; but above all, with the odour of Styrax. And Piſmires are killed with the very fume of Origan, Quicke lime or Brimſtone. Gnats love all ſoure things, and willingly will thither: but to any ſweet meats they come not neare.

Chap. lxxi.

That the ſence of feeling is common to all living creatures.

THere is not a living creature throughout the world, but hath the ſence of feeling, although it have none els. For even oiſters and the earth-wormes, if a man touch them, doe evidently feele. I would thinke alſo that there is none but taſteth as well as feeleth. For what ſhould the reaſon els be, that ſome deſire to taſt this, and others that? And verily herein is ſeene above all, the ſingular workmanſhip of Nature, in the frame of their bodies, and the members thereof. Some yee ſhall have to ſeize upon their prey with their teeth; others ſnatch it with their tallons and clawes. Some pecke and pluck it with their hooked bils; others pudder into their food with their broad nebs. Some with the ſharpe point of their beakes worke holes into their meat; others lie ſucking at it: ſome licke; others ſup in: to conclude, ſome chew; others ſwallow and devour whole as it is. And as touching their feet, there is no leſſe varietie in the uſe thereof: in M ſnatching and carrying away; in tearing and plucking a peeces; in holding faſt, and in cruſhing their prey. Some yee ſhall have to hang by their feet, and others never lin ſcraping and ſcratching the earth.

A

Chap. lxxii.

What creatures live of poyson, and what of earth.

ROe Buckes and Does, yea, and Quailes (as wee have said before) will feed fat with poysons; and yet they are the most meeke and gentle creatures living. Serpents have a great desire and love to egges: wherein the subtiltie of Dragons, is worthie to bee considered. For either they swallow them downe whole (if their throat will receive them) and after they bee within their bodie, breake and squize them in peeces with rolling and winding themselves round together, and then cast up the shels againe: or if they bee but young ones yet, and not so strong as to
B gobble up whole egges, then they will wind about an egge with their taile by little and little, and bind it so hard, that they will cut off the crowne of it, as it were with a knife, and then sup of the rest which they claspe and hold fast betweene. In like manner deale they with birds. For swallow they will them whole down the gullet, and afterwards straine and struggle so with themselves, untill they disgorge againe the feathers and bones that were in their bellies.

Scorpions feed upon earth. And Serpents againe, if they may come handsomely to wine, will make meanes to drinke their fill of it, howsoever otherwise they have but little need of anie drinke. They eat no meat at all, or very little, when they be kept close within any thing: like as the Spiders also, which otherwise naturally live by sucking. And therefore you shall not lightly see anie venomous creature to die either of hunger or thirst. For neither have they store of heat, nor
C plentie of bloud, ne yet of sweat: all which naturally provoke a stomacke, and give an edge to appetite. And among these venomous creatures, those be evermore daungerous which have eaten some of their owne kind, before they bite or sting. Apes, Monkies, and Marmosets bestow and treasure up the meat that is given them, or that they can come by, within their cheekes, as in a store house. And when they bee hungrie, they get the same forth by little and little with their hands, and so fall to chew it. Thus practise they in making their provision, for to serve them from day to day, and from one houre to another: which Pismires usually doe from yeare to yeare.

Chap. lxxiii.

D *The meat and drinke of some creatures.*

OF all living creatures that have many toes in their feet, the Hare alone feedeth upon grasse and greene corne in the blade. As for those that bee whole hoofed, they live both of the blade, and also of the fruit thereof. Also of such as bee cloven footed, Swine will eat all kind of food, yea, and live of verie roots. It is the propertie of whole hoofed beasts alone, to wallow and turne over and over. All that have teeth endented in like sawes, be naturally devourers of flesh. Beares will feed of corne, bruse trees, eat grapes, live of apples and other fruits, feed upon bees, creifishes, and pismires. Wolves (as we said before) if they be verie hungrie, eat earth. Sheep feed the better and grow fat, if they may drinke: and therfore salt is verie good for them, because it maketh them thirstie. Draught beasts, and such as are used to carriage, albeit they live of corne and grasse, yet according to their drinking they doe feed. Besides those mentioned heretofore, of wild beasts the red and fallow Deere both, doe chew cud when they be made tame and fed by hand: but all chuse rather in so doing, to lie than to stand, and in winter more than summer, for seven months ordinarily. The Rats and Mice in the countrie of Pontus, namely, Hermins, & such like after the same manner doe chew cud and goe over their meat againe. What beasts soever are toothed like saw teeth, lap as they drinke. So do also our common Mice and Rats, although they be of another kind, and are not so toothed. They that have broad teeth, plaine, and uniforme, as horses and kine, drinke supping and taking their full draught. Beares in their drinking do neither the one nor the other, but bite at the water, and so let it downe. In Affricke the more part of wild beasts drinke not all Summer long, for want of raine water: which is the cause that the Rats and Mice of Ginnie which be taken, if they drinke afterwards upon so long disuse, die therewith. In the deserts of Affricke, where there is no water ever to bee had, there is engendred a certaine wild goat named Oryx, which as by the nature of the place it wanteth drinke, so it hath in her bodie a soveraine and singular remedie against drought and thirst. Which the common theeves & robbers by the high way side in Getulia, knowing well ynough, endure a long time with the helpe thereof

thereof without drinke: for they uſe to ſtanch and quench their owne thirſt, with a certain moiſt holeſome liquor found in the bladders of the ſaid beaſt. In the ſame Affricke the Leopards lie in await among the thickets of trees, hidden within the braunches; and ſo ſeize upon them that paſſe by, and make ſpoile even from the place where foules uſe to perch. As for Cats, marke I pray you how ſilent they be, how ſoft they tread when they ſteale upon the ſilie birds: how ſecret lie they in eſpiall for the poore little Mice to leape upon them. Their owne doung and excrements they will rake up and hide in the earth, knowing full well, that the ſmell thereof will bewray where they are. G

Chap. lxxiiii.

What beaſts accord together, and which they bee that diſagree one from another. H

BEſides theſe outward ſences abovenamed, evident it is alſo, that brute beaſts have other inſtincts of Nature. For they entertaine friendſhip and enmitie one with another (which cannot poſſibly be without affection and paſſion) over and beſides thoſe other warres and amities which wee have obſerved in their ſeverall places. Swans and Ægles jarre and warre one with another: ſo doth the Raven and the Witwall or Loriot, which ſeeke after one anothers egges in the night. Likewiſe the Raven and Kite: for the Raven evermore is readie to catch the Kites meat from him. Crowes and Owles are at mortall feaud one with another. The roiall Ægle hateth the Wren, and why? becauſe (if we may beleeve it) he is named Regulus, [i. the petie-king.] I Howlets alſo cannot agree with other little birds. Againe, foules make warre with four-footed beaſts. The Weaſell and the Crow be at deadly debate. The Turtle with the Creckit (Pyralis) that liveth about the fire. The Ichneumons with Waſpes: the Phalangia with other Spiders. And among water-foules, Duckes and Drakes with the ſea-Guls. The Seamewes with the Buzzard Triorchis. As for the field Rats or Mice, and the dwarfe-Herons, they ſeeke to prey one upon the others little ones. The bird Ægithus, (the leaſt in manner of all others) waiteth the Aſſe a ſhrewd turne; for when he rubbeth himſelfe againſt the buſhes to ſcratch where it itcheth, hee therewith breaketh and overthroweth her neaſt: and therefore this ſilie bird is ſo much afraid of the Aſſe, that if ſhe heare him but bray, ſhe is readie to throw the egges out of the neaſt, and thoſe that bee alreadie hatched, will for verie feare fall downe: Then in revenge of this wrong, ſhe will flie upon him, and with her bill pecke where the skin is off and raw with rubbing, yea, and make holes even to the verie bone. Moreover, Foxes and the Yeeles of Nilus cannot abide one another, but are in continuall warre. So be Wezils and Swine. There is an unhappie bird called Æſalon, and but little withall: yet will ſhe ſquaſh and breake the Ravens egges. And when ſhee hath young ones, they be much troubled and annoied with the Foxes: ſhe againe to be quit with them, will all to pinch & nip both the Fox and her cubs. The Ravens ſeeing that, come to aid (as it were) againſt a common enemie. The Goldfinch liveth among buſhes and thornes, and therefore ſhe alſo hateth the Aſſe, becauſe he eateth up the floures that grow thereupon. The bird Ægithus, ſo farre hateth another called Anthus, that men are verily perſuaded the bloud of them both will not mingle together: and hereupon it is, that the ſorcerers and witches have brought it into an ill name. The Thoes and the Lions doe foulely jarre and diſagree. In ſumme, the leaſt creatures as well as the biggeſt, quarell and fight one with another. Rats and field Mice cannot abide to come neare a tree that is full of Ant-neſts. The Spider eſpying a Serpent lying along under the ſhade of a tree where ſhee ſpinneth, ſlideth downe upon a fine thred to the head of the Serpent, and ſtingeth him ſo deepe into the brain, that he falleth a hiſſing and grinding his teeth: he keepeth a winding and turning about, but hath not the power to breake the thred that hangeth above, ne yet to flie from the Spider: inſomuch, as the Serpent lieth there dead in the place. Contrariwiſe, Peacocks and Houſe-doves be as friendly one to another: ſo be the Turtles and Popinjaies, the Merles and Turtles likewiſe. The Crow and the leſſe Bittours alſo: for they joine and band together againſt the common enemie the Foxe. Likewiſe, the bird-Harpe and the Kite againſt the Buzzard. What will yee ſay? be there not tokens of affection even in Serpents, the cruelleſt and felleſt creatures of all others in the world? I have written alreadie of the report or tale that goeth in Arcadia of a man, whoſe life was ſaved by a Dragon (that was brought up by him) ſo ſoone as ever he knew him by his voice. As for the Aſpis, *Philarchus* telleth a ſtrange hiſtorie of it. I K L M

A it. For hee writeth, that in Ægypt there was an Aspis used ordinarily to come to the table of a certaine Ægyptian, and there took meat at his hand: which Serpent afterwards had yong ones, whereof one chaunced to sting a sonne of the maister of the house, that he died of it. Now when the dam (the old Aspis) came accordingly at the accustomed houre of repast for victuals, and perceived the deed committed by her little one; not only killed it in satisfaction of the former fact, but also forbare the house, and was never knowne to repaire thither againe.

Chap. lxxv.

The sleepe of living creatures.

B THe question, Whither living creatures sleepe or no? is not very difficult, but soone decided. For plaine it is, that of land creatures, all that winke and close their eies doe sleep. As for those in the water, that they also sleepe (though but a little) even they are of opinion who otherwise make doubt of the rest. And this they doe not collect and gather by their eies (for lids they have none to shut) but because they are seene to lie so still and quiet, as fast and sound asleepe, stirring no part, but a little wagging their tailes, and seeming to start and bee affright at any suddaine noise made in the water. As for the Tunnies, wee may avouch more confidently of their repose: for they come of purpose to sleepe under the bankes or rockes. And flat broad fishes lie so still sleeping among the shelves, that oftentimes a man may take them up with his hand. The Dolphins and Whales be heard to rout and snort again, they sleepe so soundly. Moreover, as touching Insects, no man need to doubt that they sleepe, so quietly doe they lie & make no noise: nay, if you bring a candle or other light, and set it even before their eies, you shall not have them to awake nor move. An infant after it is borne, sleepeth for certaine moneths at the first, and in manner doth nothing els. But the elder he waxeth, wakefull he is every day more than other. Babes at the very beginning doe dreame. For they will waken and start suddainely in a fright: and as they lie asleepe, keepe a sucking of their lips, as if they were at the breast heads. Some never dreame at all. And if such chaunce contrarie to this custome, for to dreame ones, it hath been counted for a signe of death, as we have seene and proved by many examples and experiments. And here in this place there offereth it selfe a great question, and very disputable *pro & contra*, grounded upon many experiments of both sides: namely, Whether the soule of man while the bodie is at rest, foreseeth things to come? and how it should so doe? or whether this be a thing of meere chaunce and altogither conjecturall, as many others be? And surely if we goe by histories, we may find as many of the one side as the other. Howbeit all men in manner agree in this, That dreames either immediatly upon drinking wine and full stomacke, or els after the first sleepe, are vaine and of no effect. As for sleepe it is nothing else but a retreat and withdrawing of the soule into the mids of it selfe. Evident it is, that Horses, Dogs, Kine, Oxen, Sheepe, and Goats doe dreame. Whereupon it is credibly also thought, that all creatures which bring forth their young quicke and living, doe the same. As for those that lay egges, it is not so certein that they dreame: but resolved it is, that they all doe sleepe. Now let us passe and proceed to the treatise of Insects.

THE

THE ELEVENTH BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

❧ *The Preface.*

IT remaineth now to write of those living creatures, which are the most subtill of all others that Nature hath brought forth: forasmuch as some are of opinion, That they breath not, ne yet have any blood at all.

Chap. I.

❧ *Of Insects in generall.*

MAny and sundrie sorts there be of Insects, as well among land creatures as those that flie in the aire. Some are winged, as Bees: some have partly wings and partly feet, as Pismiers: others want both, and neither flie nor goe on their feet. And well may they all be called *Insecta*: by reason of those cuts and divisions, which some have about the necke, others in the breast and belly; the which doe goe round and part the members of the bodie, hanging togither only by a little pipe and fistulous conveiance. There be of them, that have not the bodie divided entire, one part from the other by these incisures, cuts, and wrinkles; but they appeare onely either under the bellie, or upon the backe above, and go no deeper, neither yet round the whole compasse of the bodie. But a man shall perceive in them certaine rings or circles, apt to bend and wind to and fro, & those so plated and plaited one over another, that in no thing elsewhere, is more seen the workmanship of Nature, than in the artificiall composition of these little bodies.

Chap. II.

❧ *The industrie and subtiltie of Nature in framing these Insects.*

IN bodies of any bignesse, or at leastwise in those of the greater sort, Nature had no hard peece of worke to procreat, forme, and bring all parts to perfection; by reason that the matter whereof they be wrought, is pliable and will follow as she would have it. But in these so little bodies, (nay prickes and specks rather than bodies indeed) how can one comprehend the reason, the power, and the inexplicable perfection that Nature hath therein shewed? How hath she bestowed all the five senses in a Gnat? and yet some there be, lesse creatures than they. But (I say) where hath she made the seat of the eies to see before it? where hath she set and disposed the tast? where hath shee placed and inserted the instrument and organ of smelling? and above all, where hath she disposed that dreadfull and terrible noise that it maketh, that wonderfull great sound (I say) in proportion of so little a body? Can there be devised a thing more finely & cunningly wrought than the wings set to her bodie? Marke what long shanked legs above ordinarie shee hath given unto them. See how shee hath set that hungrie hollow concavitie in stead of a belly: and hath made the same so thirstie and greedie after blood, and mans especially. Come to the weapon that it hath to pricke, pierce, and enter through the skin; how artificially hath shee pointed and sharpened it? And being so little as it is, (as hardly the fineneſse thereof cannot be seen) yet as if it were of bignes and capacitie answerable, framed it she hath most cunningly for a twofold use: to wit, most sharpe pointed, to pricke and enter; and withall, hollow like a pipe for to sucke in

and conveigh the bloud through it. Come to the Wood-worme, what manner of teeth hath Nature given it, to bore holes and eat into the verie heart of hard oke? who heareth any ſound that ſhe maketh whiles ſhe is at her worke? and yet in wood and timber is in manner all her feeding. We make a wonder at the monſtrous and mightie ſhoulders of Elephants, able to carrie turrets upon them. Wee marveile at the ſtrong and ſtiffe necks of Bulls, and to ſee how terribly they will take up things and toſſe them aloft into the aire with their hornes. We keepe a woondring at the ravening of Tygres, and the ſhag manes of Lions: and yet in compariſon of theſe Inſects, there is nothing wherein Nature and her whole power is more ſeene, neither ſheweth ſhe her might more than in the leaſt creatures of all. I would requeſt therefore the readers, that in peruſing this treatiſe, they will not come with a prejudicate opinion, nor (becauſe many of theſe ſillie flies and wormes be contemptible in their eies) diſdaine, loath, and contemne the reports that I ſhall make thereof; ſeeing there is nothing either in Natures workes that may ſeeme ſuperfluous, or in her order unworthie our ſpeculation.

Chap. iii.

Whether Inſects doe breath, and whether they have blood or no?

Divers have denied that they breath at all; and upon this reaſon they ground their poſition, Becauſe they have no arterie or windpipe annexed or reaching to any inſtrument within, of reſpiration. And they be of opinion, that they live indeed as plants, hearbs, and trees: howbeit (ſay they) there is a great difference betweene having life, and drawing wind or vitall breath. And by the ſame rule they affirme, that they have no bloud, which is in none that be without heart and liver. Neither doe any things breath which want lungs. And from hence ariſeth a world of other queſtions thereupon depending. For the ſame men denie flatly, that theſe creatures have any voice: notwithſtanding ſo great humming of Bees, & ſinging ſound of Graſhoppers, and ſuch other, whereof wee will conſider in due time and place, accordingly. Verily for mine owne part, the more I looke into Natures workes, the ſooner am I induced to beleeve of her even thoſe things that ſeeme incredible. Neither doe I ſee any inconvenience to beleeve, that theſe Inſects may as well draw wind and breath without lungs, as live without ſuch noble and principall parts as are requiſite for life in other creatures: according as wee have alreadie ſhewed in the diſcourſe of fiſhes and ſuch like, that live in the ſea; howſoever the quantitie, depth, and heights of the water, may ſeeme to impeach and ſtop their breath. For who would eaſily beleeve, that ſome creatures ſhould flie at libertie, and living as they doe in the mids of wind and aire, yet want wind and breath themſelves? that they ſhould have a ſenſe and care to ſeeke their living, to engender, to worke, and to forecaſt for the time to come: and albeit they have no diſtinct members, to carrie (as it were in a ſhip) their ſeverall ſenſes, yet that they ſhould heare, ſmell, and taſt; yea and be endued with other ſingular gifts beſides of Nature, to wit, wiſdome, courage, skill, and induſtrie. Indeed, confeſſe I muſt, that bloud they have none: no more have all creatures that live upon the land: howbeit a moiſt humor they have, ſomewhat like unto bloud, which ſerveth them in ſtead thereof. Like as in Cuttles of the ſea, there is found a certaine blacke liquor in ſtead of bloud: and in all the ſort of Purples and ſuch ſhell fiſhes, that excellent juice which ſtaineth and dieth ſo as it doth. Semblably in theſe Inſects, whatſoever humour it is whereby they live, the ſame may well enough goe for bloud and ſo be called: all the while that every man hath libertie to give it what name he thinketh fitteſt. As for me, my purpoſe is not to judge and determine of theſe doubtfull quillets, and their cauſes: but to ſet downe and ſhew the nature of ſuch things as be cleare and apparent.

Chap. iiii.

The ſubſtance of the bodie in theſe Inſects.

These Inſects, ſo farre as a man may perceive, ſeeme not to have either ſinewes or bones, no chine nor griſtle, no fat, no fleſh, ne yet ſo much as a tender and brittle ſhell, as ſome ſea-fiſhes have, nor that which may be truly called a skin; but a certaine corporall ſubſtance of a middle nature between all theſe: for their bodie without, is like a drie thing, and yet more tender and ſoft than a ſinew: whereas in all other parts the matter is to be accounted rather drie than

than hard. This is the very ſubſtance whereof they conſiſt, and nothing have they beſides. For within there is nought, unleſſe it be in ſome very few, who have a certain pipe or conduit in ſtead of a gut, and the ſame wrapped and enfolded together. Which is the cauſe, that if they be cut in twaine and pulled in peeces, yet they have a ſpeciall propertie to live long, and each part aſunder will pant and ſtirre by it ſelfe. The reaſon is, becauſe the vitall vertue in them (whatſoever it is) is not ſeated in any one member, this or that, but ſpread and defuſed throughout the whole bodie; and leaſt apparent in the head, of all other parts: for, that alone, unleſſe it be plucked away together with the breaſt, mooveth not one jot. No kind of creatures have more feet than theſe: and the more they have, the longer live they when they be divided aſunder; as we ſee by experience in the Scolopendres. Eies they have, that is certaine; and beſides ſight, they are not without the ſences of feeling and taſting: ſome there be which ſmell, and a few that have their hearing alſo.

Chap. v.

Of Bees.

BVt among them all, Bees are principall, and by good right deſerve eſpeciall admiration, as being the onely Inſects ordained by Nature for mans uſe. They gather honie, a moſt ſweet, pleaſant, fine, and wholeſome liquor. They frame the honie combes, and worke the waxe, which ſerve for a thouſand turnes in this life. They endure paines continually, and diſpatch their worke and buſineſſe. They have a policie and Commonwealth among themſelves. They hold their ſeverall counſels: and there is not a ſwarme or caſt that they have, without a king and captaine of their own: and that which is moſt admirable of all, there be civile faſhions and cuſtomes among them. Moreover, being as they are, neither tame and gentle, nor yet to be counted wild and ſavage, yet (ſee the wonderous worke of Nature!) by the means of ſo little a creature, nay, a ſhaddow rather (to ſay a truth) of the leaſt creature, ſhee hath effected a thing incomparable. What ſtrength of ſinewes, what force and puiſſance is able to countervaile this ſo great induſtrie and effectuall power of theirs? What wit and policie of man is anſwerable to their diſcreet and orderly courſe? Beleeve me, they paſſe them all, & in this one point ſurpaſſe, That all things are common among them, and nothing know they private and ſeverall. What ſhould we debate and make queſtion any more as touching their breath? Why ſhould we diſpute of their bloud, which cannot chuſe but bee very little in ſuch ſmall bodies? Let us rather conſider hence-forth their wit, and the gifts of their mind.

Chap. vi.

The naturall order and regiment that is in Bees.

BEes all winter time keep cloſe within their hives. And good reaſon: for how poſſibly ſhould they endure hard froſt and chilling ſnow? how ſhould they abide the peircing blaſts of the North winds? And verily it is the manner of all theſe Inſects ſo to doe, but yet they keepe not in ſo long. For why? being neſtled warme as they are within our houſes, they ſooner doe recover their vigor, and come abroad betimes. But as concerning Bees, either the times have changed, and places altered their courſe, or els the writers beforetime of this argument have greatly erred. They begin to retire themſelves and take up their wintering harbor, preſently upon the ſetting and occultation of the ſtarre Vergiliæ; and come not forth into the field againe, untill after the riſing and apparition thereof. So that Bees goe not abroad at the very beginning of the Spring, as writers have ſet downe, (for who ſeeth not the contrarie throughout all Italie) but remaine ſtill cloſe and ſecret, untill that Beanes begin to bloume; before which time they ſettle not themſelves to any worke or labour. But from thence forward, they looſe not a day, they ſlacke not their painefull travell, neither play they one jot, if the weather be faire and will permit. The firſt thing they doe, is to make their combes and waxe, that is to ſay, their own habitations and ſtore-houſes. When they are provided of lodging, they thinke upon the multiplying of their owne kind: and finally, they gather and make both honie and waxe: the ſubſtance whereof they ſucke from the flowers of trees and hearbes, from the gums alſo of trees which breed ſuch gluey matter; and beſides, out of the juice, gum, and roſin of the willow, elme, and cane. With theſe and ſuch like, they plaiſter all the hive within throughout, as it were with a coat or parget, enterming-

gling

gling withall other juices that are more unsavorie, gathered from the bittereſt hearbes they can get: to the end that they might keepe out other little vermines that are greedie of their honnie: as knowing full well, that they are about a peece of worke which is worthie to be desired and sought after. Of this gummie and glutinous substance they frame also their dores and entries which are wide and large.

Chap. VII.

The proper tearmes belonging to their worke.

THe first foundation of their worke, skilfull honie-maisters doe call Commosis: the second Pissoceros: the third Propolis, which lieth betweene those former coats and the waxe of the honie-combe, whereof there is so great use in Physicke. Commosis is that first coat or crust of a bitter taste. Pissoceros commeth next after it, as it were a thinner course of pitch or varnish, and a weaker kind of waxe, made of the more liquid and mild gum of vines and Poplars. But Propolis consisteth of a more solide matter, as having the strength of some floures withall: howbeit, as yet it is no full and perfect waxe, but the foundation and strengthening of the combes: and serveth as a good defence against cold, and to stop the passage of waspes and such hurtfull creatures as would doe injurie to the Bees, for still a strong sent it carrieth, as which, many men doe use in stead of Galbanum. After this munition done, then followeth the provision of that which is called Erithace, some tearme it Sandaracha, and others, Cerinthus. This must serve for the Bees meat, whereof they are to live whiles they worke: and found it is oftentimes, laid apart within the concavities of their combs, it being also of a bitter taste. Now this Erithace commeth of the *Spring-dew, and the moisture issuing out of trees in manner of gumme: in lesse abundance ever, when the Southwest wind bloweth: but when it is full South, more blacke: and in the Northerly constitution, farre better and more red withall. Great store hereof, Bees meet with upon Almond trees. *Menecrates* saith, That it is a flower foreshewing what harvest shall ensue: * but no man saith so besides him.

*Rore verno, or Sea-dew, *Ros marino.*

*Being deceived with the Homonymie of the word *Cerinthus*, which hath a double signification.

Chap. VIII.

What flowers they be which Bees serve themselves most withall for their worke.

AS for waxe, Bees gather and make it of the flowers of all trees, hearbes, and plants, saving the docke and *goose-foot, which are two kinds of hearbes. Some except also a kind of Broome called Spart: but untruly: for in Spaine (where there be many places full of that shrub) the honie carrieth the strength thereof in the taste. I am besides of opinion, that they be deceived, who thinke that Bees gather not of Olive trees. For we see it ordinarie, that there be more casts and swarmes of Bees where Olives grow in greater abundance. These pretie creatures hurt no fruit whatsoever. They will not settle upon a flower that is faded, and much lesse of any dead carkasse. They use not to goe from their hive about their businesse above threescore paces. And if it chaunce, that within the precinct of these limits they find not flowers sufficient: out goe their spies, whom they send forth to discover forage farther off. If in this expedition, before they come home againe, they bee overtaken by the night, they couch upon their backes for feare least their wings should bee overcharged with the evening dew, and so they watch all night untill the morning.

* Chenopode.

Chap. IX.

Those that have taken a speciall pleasure in Bees.

SVch is the industrie of this creature, that no man need to wonder at those two persons who delighted so much in them, that the one (namely *Aristomachus* of Soli) for threescore yeares lacking but twaine, did nothing els but keepe Bees: and *Philiscus* the Thasian employed the whole time of his life in forrests and desarts, to follow these little animals: whereupon hee was surnamed *Agrius*. And both these upon their knowledge and experience, wrate of Bees.

Chap. X.

The order that they keepe in their worke.

THe manner of their busineſſe is this. All the day time they have a ſtanding watch and ward at their gates, much like to the *corps de guard* in a campe. In the night they reſt untill the morning: by which time, one of them awaketh and raiſeth all the reſt with two or three bigge hums or buzzes that it giveth, to warne them as it were with ſound of trumpet. At which ſignall given, the whole troupe prepareth to flie forth, if it be a faire and calme day toward: for they doe both foreſee and alſo foreſhew when it will be either windie or rainie, and then will they keepe within their ſtrength and fort. Now when the weather is temperate (which they foreknow well enough) and that the whole armie is on foot and marched abroad, ſome gather togither the vertue of the flowers within their feet and legs: others fill their gorge with water, and charge the downe of their whole bodie with drops of ſuch liquor. The younger ſort of them go forth to worke, and carrie ſuch ſtuffe as is before-named, whiles the elder labour and build within the hive. Such as carrie the flowres aboveſaid, ſtuffe the inner parts of their legs behind (and thoſe Nature for that purpoſe hath made rough) with the helpe of their forefeet; and thoſe again are charged full by the meanes of their muſſle. Thus being full laden with their proviſion, they returne home to the hive, drawne even togither round as it were in a heape, with their burden; by which time, there be three or foure readie to receive them, and thoſe eaſe and diſcharge them of their lode. For this you muſt thinke, that they have their ſeverall offices within. Some are buſie in building, others in plaiſtering and overcaſting, to make all ſmooth and fine: ſome be at hand to ſerve the workemen with ſtuffe that they need; others are occupied in getting readie meat and victuals out of that proviſion which is brought in: for they feed not by themſelves, but take their repaſt togither, becauſe they ſhould both labour and eat alike, and at the ſame houre. As touching the manner of their building, they begin firſt above to make arch-worke embowed, in their combs, and draw the frame of their worke downward; where they make two little allies for every arch or vault, the one to enter in by, the other to go forth at. The combs that are faſtened togither in the upper part, yea and on the ſides, are united a little, and hang all together. They touch not the hive at all, nor joine to it. Sometime they are built round, otherwhiles winding bias, according to the proportion of the hive. A man ſhall find in one hive honycombs ſomtime of two ſorts: namely, when two ſwarmes of Bees accord togither: and yet ech one have K their rites and faſhions by themſelves. For feare leaſt their combs of waxe ſhould be readie to fall, they uphold them with partition-wals, arched hollow from the bottome upward, to the end that they might have paſſage every way to repaire them. The formoſt rankes of their combs in the forefront, commonly are built void and with nothing in them, becauſe they ſhould give no occaſion for a theefe to enter upon their labours. Thoſe in the backe part of the hive, are ever fulleſt of honie: and therefore when men would take out any combes, they turne up the hives behind. Bees that are emploied in carrying of honie, chuſe alwaies to have the wind with them, if they can. If haply there doe ariſe a tempeſt or a ſtorme whiles they bee abroad, they catch up ſome little ſtonie greet to ballaiſe and poiſe themſelves againſt the wind. Some ſay, that they take it and lay it upon their ſhoulders. And withall, they flie low by the ground under the wind when it is againſt them, and keepe along the buſhes, to breake the force thereof. A wonder it is to ſee and obſerve the manner of their worke. They marke and note the ſlow-backs, they chaſtice them anone, yea, and afterwards puniſh them with death. No leſſe wonderfull alſo it is to conſider how neat and cleane they bee. All filth and trumperie they remove out of the way: no foule thing, no ordure lieth in the hive to hinder their buſineſſe. As for the doung and excrements of ſuch as are working within, they be laid all on a heape in ſome by corner, becauſe they ſhould not goe farre from their worke: and in foule weather (when otherwiſe they have nought to doe) they turne it forth. Toward evening, their noiſe beginneth to ſlacke and grow leſſe and leſſe: untill ſuch time as one of them flieth about with the ſame lowd humming, wherewith M ſhee waked them in the morning, and thereby giveth a ſignall (as it were) and commaundement for to goe to reſt: much after the order in a campe. And then of a ſuddaine they are all huſht and ſilent.

A

Chap. xi.

Of the Drone-bees.

THe houſes and habitations that Bees build firſt, are for the Commons: which being finiſhed, they ſet in hand with a pallace for their king. If they foreſee that it will be a good ſeaſon, and that they are like to gather ſtore of proviſion, they make pavilions alſo for the Drones. And albeit they be of themſelves bigger than the very Bees, yet take they up the leaſt lodgings. Now theſe Drones be without any ſting at all, as one would ſay unperfect Bees, and the laſt fruit of ſuch old ones as are wearie and able to doe no more good; the very latter brood and encreaſe, and to ſay a truth, no better than ſlaves to the right Bees indeed. And therefore the others as maiſter Bees over them, have them at their commandement: if any drudgerie or ſuch like buſineſſe is to be done, out are they ſent firſt: make they but ſlow haſt in that they are ſet about, ſure they are to pay for it, and to be puniſhed without mercie. And not only in their ordinarie worke they ſerve them in good ſtead, but alſo they helpe them to multiplie: for the hotter that the place is, the more hope there is of a greater increaſe. Certes, this is found by experience, That the better the hive is peopled with a number of Bees, the Caſt when time comes will be the greater, and the oftener will they ſwarme. But after the honie is growing once to maturitie and perfection, then begin they to drive theſe Drones out of dores: nay, ye ſhall have many Bees ſet upon one poore Drone, and kill him outright. So that a man ſhall not lightly ſee any of that kind but in the Spring time.

B

C

If one plucke off the wings from a Drone, and put him againe within the hive, he will never lin untill he have done the like by all the reſt of the ſame kind. As touching the roiall pallaces for the kings and captaines that ſhall bee, built they are all moſt ſtately, great of receit, in ſhew magnificent, ſeated by themſelves apart, and like citadels raiſed upon ſome high knap or tuft of a mountaine. If one of theſe caſtles chance to be preſſed or cruſhed, there will no more come of that princely race. All the lodgings and roumes where the Bees abode is, are ſix cornered, according to the number of feet emploied in that worke. None of all this is done at any ſet time or day appointed: but they take the opportunitie when they can eſpie faire weather to fit their buſineſſe, and ſo doe theſe things by ſnatches. And ſurely within a day or two at the moſt, they fill their ſtore-houſes with honie.

Chap. xii.

The nature of Honie.

THis pleaſant and ſweet liquor which we call honie, is engendred naturally in the aire, and eſpecially by the influence and riſing of ſome ſtarres: but principally during the fervent heat of the canicular daies, even when the Dog ſtarre is in his full power and force: never before the appearing of the ſtarre Vergiliæ, but alwaies before day. For ſo about the day breake betimes in the morning, the leaves of trees are found bedewed with honnie: and looke whoſoever they are, that have occaſion to be abroad in the aire about the dawning of the morrow, they may evidently perceive their clothes wet with a clammie humour of honie, yea, and their haires glewed therewith together, if they goe bare headed. Bee it what it will, either a certaine ſweat of the skie, or ſome unctuous gellie proceeding from the ſtarres, or rather a liquor purged from the aire when it purifieth it ſelfe; would God wee had it ſo pure, ſo cleare, and ſo naturall, and in the owne kind refined, as when it deſcendeth firſt, whether it be from skie, from ſtarre, or from the aire. For even now ſuch as it is, paſſing (as it were) through ſo many hands: namely, falling from a region ſo high and remote from us, and in the way as it commeth catching much filth; and namely, infected with the groſſe vapour of the earth which it meeteth in the fall: moreover, ſucked and drunke (as it is) by the Bees from the leaves of trees and graſſe, and ſo gathered and laid up in their little bellies or bladders, (for at their mouth they ſpread and caſt it up againe;) corrupted alſo and ſophiſticated with other humors drawne out of flowers; finally, ſo long ſoking within the hives, and ſuffering ſo many alterations: yet for all the ſorrow, a great reſemblance it carrieth ſtill with it of a moſt pleaſant, ſweet, and cœleſtiall liquor.

Chap. xiii.

The best kind of Honie.

THe best honie is ever there, where the best flowers are; within the receptacles whereof, it lieth. As we may see in the countrey about Athens, which carrieth the name for honie: also in Sicilie within those territories about Hymettus and Hybla: and lastly, in the Island Calydna. Now this honie, whereof we treat, is at the first cleare and thin as water: and for certaine daies in the beginning, it workes and boiles like to new wine, and so purgeth it selfe. By the twentieth day it getteth a certaine consistence and thicke substance, and soone after gathereth a thin creame or skin over it: which in the very heat of working, is raised of a scum, and so thickeneth. The best simply that Bees can sucke, and least infected with the corruption of tree braunches, is that which they get out of the leaves of Oke, Tilia [*i.* Linden tree,] and Canes.

Chap. xiiii.

The sundrie sorts of Honie, according to diverse regions.

HOnie (as wee said before) is better or worse, according to the region where it is gathered; and that in many respects. For in some place ye shall have goodly combs: howbeit, more commendable for waxe than the honie in them: as in the Pelignians countrey, and Sicilie. In others, and namely in Candie, Cypres, and Affricke, the combes yeeld more honie than waxe. Some countries there be, especially in the North parts, where the combes passe for bignesse; insomuch, as in Germanie there hath been a hony-combe seene eight foot long, and black all within. But in what region soever it be that honie is found, three kinds there be of it. First, the Spring honie, made of flowers onely; like as the combe also: and thereupon the Greekes call it Anthinon, which is as much to say as the Floure-honie. Some would not have this to be once touched, but to serve for nourishment of the young Bees, that the swarmes or casts may be more strong and lustie. Others againe leave for the Bees of none lesse than of it: by reason of the great plentie like to follow, at the rising of those notable starres in the Summer ensuing. Moreover, the combes are in their principall beautie about the Sunnestead in Summer, when daies be longest, at what time as the Vine and Thyme do begin to floure. Also, in taking forth of the honycombs, needfull it is to be well advised in ordering the matter for the provision of food for Bees. If they be cut short and destitute of their meat, they either despaire and die for want, or else depart and flie away. Contrariwise, if you leave them too much, plentie breeds idlenesse, that they will not labour: neither deigne they to feed of Erithace, their ordinarie food, but fall to the good honie. They therefore that bee well experienced in these matters, thinke it good to leave them the twelfth part of this store and vintage, if I may so say, which is gathered in the combes. And verily, it seemeth that Nature hath ordained a certaine set day for to begin this vintage, if men would take knowledge thereof, and marke it well; namely, the thirtieth day, after the Bees swarmed and went forth: and usually it falleth out, that this gathering commeth within the month of May. A second kind of honie there is, which we call Summer honie, and is named also Horæum, of that principall season wherein it is made, namely, in the very middest of dog daies, when the star Sirius is in his full strength: and that commonly is thirtie daies after the Sunne-stead. And I assure you, Nature hath shewed her admirable and excellent power to men ward in this behalfe; in case their fraud and deceit would suffer her workes in their entire and proper nature without corruption and sophistication, which marreth all, and maketh nothing but confusion. For upon the rising and apparition of any starre, and especially of those that be more excellent than the rest; or after that a rainebow is seene above the earth, and no showers of raine presently follow, but a drisling dew warmed with the raies and beames of the Sunne; yee shall have that which falleth, not to be bare honie, but a very medicinable thing, even a cœlestiall gift, singular good for eies and ulcers, yea, and comfortable to the principall noble parts within the bodie. And if this happen to be at the rising of the dog starre, and it chaunce withall, that upon the same day (as oftentimes it falleth out) *Venus*, *Iupiter*, or *Mercurie* be Orientall, then shall yee have so heavenly a sweet liquor, that no one thing in the world may bee comparable to it for the curing of all our maladies, and even to reduce and recover us backe from death to life, like unto that cœlestiall

and

A and divine Nectar, which immortalizeth the gods above.

Chap. xv.

The markes of good Honie.

More plentie of honie is gathered in the full of the Moone, than at any other time: and if therewith the weather be faire, the ſame will be more unctеous and fattie. In all kinds, the beſt honie is that, which runneth of it ſelfe as new Wine and Oile; and called it is Acedon, as a man would ſay, gotten without care and travell. All Summer-honie is red, as being made in the drieſt ſeaſon of the yeare. The honie which commeth of Thyme, is held to bee the
B beſt and moſt profitable: in colour like gold, in taſt right pleaſant; evident to be knowne by the little leaves therein: and the ſame is likewiſe fattie. That which is made of Roſemarie, or within the aire & vapour of the ſea, is thick: and ſuch verily as is thus candied, and will not run like life-honie, is nothing commendable. As for Thyme honie, it will not thicken: and if a man touch it, rope it will and draw ſmall ſlimie threds after it: which is a principall ſign of the weight and heavineſſe thereof. If honie be ſhort in the handling, and ſoone breake, and that the drops part one from the other, it is thought to be a token of the worſt and courſeſt of all. Another triall there is beſides of good honie, namely, if it be fragrant and odoriferous to ſmell unto, ſweet in taſt, and biting withall, or quicke at the tongues end, glutinous, and cleare. As touching the driving of hives for Summer honie, *Thaſius Dionyſius* is of opinion, that the tenth part thereof ſhould be
C leſt for the Bees, namely, if they were full: if not, than according to the proportion: but if they were but light and very thin, he would not have them to bee touched at all. The Athenians goe by this rule, and doe obſerve duly the Caprificiall day, which is kept holie unto *Vulcan*: for then they ever begin to drive their hives for this kind of honie.

Chap. xvi.

Of a third kind of Honie: and how a man ſhould know good Bees.

THere is a third ſort of wild honie, which the Greekes call *Ericæum, and is of leaſt reckoning. It is gathered after the firſt raine in Autumne, when the heath and lings only bloum in the woods, whereupon it ſeemeth as if it were ſandie. This kind of honie is engendered for the moſt part after the riſing of Arcturus, much about the Ides of September. Some there be that continue in gathering Summer honie unto the riſing of Arcturus: betweene which and the Autumne Æquinoctiall are 14 daies: & from thence unto the ſetting of the Vergiliæ (namely, for the ſpace of 48 daies) the ſaid heath is moſt in his blouming time. This ſhrub the Athenians call Tetralix; the Euboeans name it Siſara: and they repute it to be a flower moſt pleaſant to Bees, haply, becauſe at that time there is no plentie of other flowers. This gathering of honie is about the end of vintage, & the occultation of the Vergiliæ; and commonly endeth by the Ides of November. In driving of the hives for this honnie, by good reaſon, two [third] parts thereof would be reſerved for the Bees: and eſpecially thoſe corners of the combes, which have in them the proviſion called Erithace. From the mids of winter unto the riſing of Arcturus, for 60 daies Bees are nouriſhed only with ſleepe, without any other food. But from that time unto the Spring equinoctiall, and namely, where the weather is more warme, they are awake. Howbeit, they lie ſtil in their hive, & then fall to their victuals which they had laid up in ſtore againſt that time. But in Italie they do the like indeed after the riſing of the ſtar Vergiliæ: howbeit, untill then they do nothing but ſleep. And there verily, men uſe when they take the honie forth of the hives, to weigh the combs, and ſo by weight diſpence & ſet out how much they will leave them for their food: having this opinion, that they are bound to deale in juſtice & equitie even with the very Bees: inſomuch, as it is commonly ſaid, If they be defrauded of their due in this ſocietie & part-taking, and find falſehood in fellowſhip, they will die for greefe: and ſo both the old ſtock will be loſt, and the hope alſo of a new increaſe. In the firſt place therfore, this is a rule, That ſuch folk only be ſet about this buſineſſe to drive the hives, who are neat and clean. A theefe, & a woman whiles ſhe is in her monthly ſickneſſe, they abhor. In the taking out of honie, the beſt means to drive away the Bees, is to ſmoke them out of the hive: for feare that you anger them, or that they devour the honie themſelves with more greedineſſe. Moreover, when they grow to be idle, perfuming and ſmoking

*i. Heath or Ling-honie.

of them thus now and then, maketh them more freſh to goe about their worke. For when they lie ſtill and doe nothing, they make their combes look dead and blackiſh. Againe, if they be overmuch ſmoaked, they will be the worſe for it: and ſurely, the very honie ſoone catcheth the hurt hereof: for ſo tender and weake will it be, that with the leaſt dew that is, you ſhall have it to turne and waxe ſoure. And therefore in all kinds of honie they obſerve and keepe that which is called Acapnon, [*i.* without ſmoke.] The honie gathered of both ſorts of Thyme, called thereupon Bithymum, is not white: howbeit, very good it is for eies and to cleanſe ulcers.

Now as touching the generation of Bees, and how they multiply and encreaſe, much diſpute there hath been among the learned, and a nice queſtion this is. For firſt and foremoſt, Bees were never ſeen to engender one with another: and therefore moſt men have been of opinion, that young Bees muſt needs be made of flowers fitly and handſomly laid togither and compoſed, according to Natures lore. Others ſay, that one maſter-Bee, which is the king in every ſwarme, doth beget them all: and that he forſooth is the only male; bigger alſo than the reſt and more ſtrong, becauſe hee ſhould not faint and faile in the action: for without ſuch an one, we ſee there is no breed: and him all the other Bees attend upon, not as their leader and captain, but as the female follow the male. Certes this were a good conjecturall opinion, and ſounding to a truth, but that the breed of theſe Drone-bees aboveſaid, doth checke and overthrow it cleare: for what reaſon is there that one and the ſame manner of procreation, ſhould bring forth ſome perfect and others unperfect? The former opinion yet might ſeeme more probable, but for another difficultie and inconvenience that croſſeth it too: for otherwhiles in the utmoſt edges and ſides of the combs, there are ſeen to breed the bigger kind of Bees, which chaſe & drive the others away: and this vermin is called Oeſtrus, [*i.* the gad-Bee or Horſe-flie.] Now if thoſe little wormes or grubs from whence the Bees come, were made of flowers, which they themſelves formed and brought into faſhion, how commeth this gad-Bee, and whereof is hee made? This is certein, that Bees couvie and ſit as Hens doe: and that which is (after a ſort) by them hatched, ſeemeth at the firſt to be a little white grub or maggot, lying croſſe overthwart the honey, and ſo faſt ſticking thereto, as if it ſeemed to feed thereupon. The king that ſhalbe, at the very firſt is yellow, and of the colour of honey; as if he were made of the moſt choiſe and excellent flower of all the reſt: nothing like to a grub as the other, but preſently hath wings. The reſt of the multitude, when they begin to take ſome ſhape, are called Nymphæ: like as the Drones at the beginning, be tearmed Sirenes or Cephenes. If a man take their heads from either ſort, before they be winged, it is a moſt pleaſant and excellent meat for the old dams. In proceſſe of time, as they grow bigger, the old Bees diſtill and drop meat into their mouthes, as they ſit upon them: and then they keepe moſt humming (as ſome thinke) for to ſet the combs into an heat, which is requiſite and neceſſarie for the hatching of them: and thus they continue, untill the little pellicles or membranes be broken; within which, everie one lieth by it ſelfe, as egs: and then they break forth all togither and ſhew themſelves accompliſhed Bees. The manner and experiment hereof, was ſeene upon a time in a ferme neare unto Rome, belonging to a Nobleman of Rome who ſomtime had been Conſull: for hee cauſed his hives to be made of lanterne hornes that a man might ſee through into them. Theſe young wormes be 45 daies before they come to their perfection.

There is found in ſome combs, a certaine bitter thing and hard like to wax, which the Latins call *Clerus*. This is as it were the abortive and untimely fruit of the Bees, to wit, when either by maladie or idlenes, or rather upon ſome barrenneſſe and unfruitfull diſpoſition by nature, Bees are not able to bring the ſame to perfection.

As for the young Bees, they are not ſo ſoone abroad, but they begin to labour with their mothers, and are trained by them to learne how to gather honey. This young people have a young king alſo, unto whome they make court, and whome they follow. And many ſuch kings are bred at firſt, for feare leaſt they ſhould want: but when the Bees are growne bigge, they all agree with one accord and voice, to kill thoſe that be moſt untoward among them, for feare they ſhould make diviſions, factions, and ſiding to parts. Theſe kings be of two ſorts: thoſe that are red all over, be better than the blacke or partie-coloured. All the race of them be verie faire and goodly to ſee to; and twice as big as the reſt: their wings ſhorter, their legges ſtreight; in their port and manner of march, more ſtately: carrying in their front a white ſtarre, like a diademe or coronet: farre brighter alſo and more neat they be than the common ſort.

CHAP.

A

Chap. xvii.

The regiment of Bees, and their government.

WHat should a man now dispute about *Hercules*, whether there was but one of that name or many? Likewise as touching the Sepulchre of Prince *Bacchus*, where and which it is? As also trouble his head in many other such like antiquities, buried by long continuance of time: For behold, in one small matter that is daily seene in our countrey houses, in a thing annexed to our fermes, and whereof there is such store, all Authours who have written of Agriculture are not yet resolved: namely, Whether the king of Bees alone hath no sting, and
B is armed only with majestie? or, whether Nature hath bestowed a sting upon him, and denied him only the use therof? For certein it is, that this great commander over the rest, doth nothing with his sting: & yet a wonder it is to see, how they all are ready to obey him. When he marcheth abroad, the whole armie goeth forth likewise: then they assemble togither, & environ him round about; they are his guard, and so close they keepe united togither, that they will not suffer him once to be seene. At other times, when all his people are busie in labor, himselfe (as a right good captaine) overseeth their workes, goeth about from one to another, encouraging them in well-doing, and exhorting them to plie their businesse: himselfe onely exempt from all other travell and paines taking. About his person he hath a certain guard ever attendant: he hath his Lictors and officers alwaies in readinesse, in token of majestie and princely port. Hee never setteth for-
C ward, but when the whole swarme is prest likewise to goe forth: and in truth, long time before, a man may perceive that they be about a voiage and expedition; for, many daies togither there is an extraordinarie humming and noise within, whiles they prepare to dislodge, trussing up as it were their bag and baggage, and expecting onely a faire day of remoove. And suppose that the king have in some battaile lost one of his wings, yet will not his hoast forsake him and flie. When they be in march, each one desireth and striveth to be next the prince, as taking a joy and pride to be seene of him, how lustily they performe their devoir. If he begin to be wearie, they support him with their shoulders: if hee be tired indeed and faint outright, they carry him full and whole. If any one of their owne companie chaunce to faile for very wearinesse, and doe drag behind, or stray aside and wander out of the way, it will yet endeavour to follow the armie
D only by the smell and sent. Where the king once setleth and taketh up his resting place, there they all pitch downe their tents and encampe. And I assure you, herein lieth a matter of great weight and importance; as touching the Auguries & presages gathered by the manner of their setling, prognosticating both to publicke states and also to privat persons, somthing to ensue of much moment, either for good or otherwise; according as they have been observed to hang togither in clusters like bunches of grapes, either at mens houses or upon the temples of the gods. By occasion whereof, folke had recourse to their devotions and sacrifices, for to appease the heavenly powers: and yet oftentimes such foretokens have not ben expiat without some strange events in the end. There was a swarme of Bees rested upon the very lips and mouth of *Plato*, when he was but a very babe and infant; fore-shewing (no doubt) that singular eloquence of his, and sweet utterance that afterwards he had. Another cast of Bees setled within the very camp of Generall *Drusus*, the very same day, when he obtained that notable victorie at Arbalo. By which examples we may see, that this conjecturall skill and learning of these Soothsayers holdeth not alwaies, nor proveth ever true: for they forsooth suppose this to be evermore a portenteous sign of some fearfull event and misfortune. To returne againe to our captain Bee: if he chaunce to be entrapped and surprized by the enemie, the whole armie is sure withall to be taken with him. If he be deffeited and slaine, the field is lost: all the rest are scattered, and seeke their fortune to serve some other prince: for without one king or other, live they cannot. Sometime they are driven to kill those of the kings race, and namely when there be many kings togither: but this they doe perforce and full against their wills: and before they will so doe, they chuse rather to ruinate and put downe the houses wherein they were bred; especially when there is some feare of scarsitie, by reason of the unkind season: and at such a time also, they chase and drive away the drone-Bees. And yet I see some doubt made of them: for divers are of opinion, that they be a kind of Bees by themselves, and that the rest doe set against them as very theeves. The biggest they are of all others, but blacke and broad bellied: good reason therefore that they should be

called

called Theeves, becauſe they come ſtealing and eat up their hony. Certein it is, that theſe drones be killed by the other Bees: and ſurely, king of their owne they have none. But how they ſhould be naturally without a ſting, there is ſome queſtion, and the ſame as yet not determined. This is well known, that in a moiſt and rainie ſpring, Bees multiply better: but if it be drie weather, there will be more encreaſe of honey. Now if it happen, that the meat in one hive be ſpent, the Bees belonging thereto will aſſaile their next neigbours, with intent to rob and ſpoile them of their proviſion. But they on the contrarie ſide, put themſelves in battaile aray, with full purpoſe to receive them againe. And if there chance to be a keeper by, to ſee the combat, that one part which perceiveth him to favor their ſide, will not once make at him for to ſting him. Other cauſes there are beſides, which make them often go togither by the ears: and then ſhall ye have two ſeverall captains to arraunge their battailons one againſt another. But moſt of all they brawle and jarre upon occaſion of gathering and carrying flowers, whiles they call each one to his owne companie, for to come forth and take part. But all this great fray is ſoone parted and diſpatched, either by caſting up ſome duſt among them, or by making a little ſmoke and perfume under them. And reconciled ſoon they be againe, with ſetting before them a meſſe of milke, or honied-water.

Chap. xviii.

Of the ſundrie ſorts of Bees in generall: and what things be contrarie and hurtfull unto them.

THere is a kind of ruſticall and wild Bee: and ſuch are more rough and hideous to ſee to: much angrier alſo and curſt than the reſt: howbeit, more laborious and painfull by farre. Of domeſticall and tame houſe-Bees, there are two ſorts. The beſt be thoſe that are ſhort, well truſt up and round, and withall, painted with ſundrie colours. The long ones be the worſe, and ſuch as reſemble waſpes: and yet the worſt of all others, bee thoſe that are hairie all over. Within the kingdome of Pontus there bee white Bees, and thoſe make honey twice in everie moneth. Moreover, along the river Thermodoon, there be two ſorts more. The one, gathereth hony in trees: others, within the ground, and bring great encreaſe thereof: for they frame their combs with a threefold courſe and ranke. The ſting that Nature hath given unto Bees, ſticketh within their bellies. Some are of opinion, that with the firſt prick they give with it, they die preſently. Others hold, that they die not withall, unleſſe they thruſt it forth ſo far, that ſome of the gut followeth after: mary howſoever it be, they become afterwards no better than drones: neither gather they any more honey, as if they were guelded of their vigor and ſtrength; ſo as they ceaſe to doe good and harme both at once. We find it written in Chronicles, that horſes have been ſtung to death by them. Filthie ſtinking ſavours they cannot abide, and namely, ſuch as be contagious; and from them will they flie farre enough. Nay more than that, ſure they will be to haunt and ſting them that ſmell as they goe of ſweet pomanders and odoriferous ointments, notwithſtanding they be otherwiſe themſelves ſubject to the injuries of moſt living creatures. For firſt and foremoſt, they are moleſted and aſſailed by thoſe of their owne nature, but yet degenerate and of baſtard breed, to wit, Waſpes and Hornets: alſo by a kind of Gnats called Muliones. Swallowes, Martins, and ſome other birds, make foule work among them, and are their mortall enemies. The Frogs lie in wait for them as they come to drinke: which is the principall worke they have to doe, when they be about to multiply and breed young. And not thoſe Frogs onely which keepe in ſtanding pooles and running rivers, but thoſe land-Frogs of a Todes kind will come of their owne accord from out of the brambles and briers where they keepe, and leap up to the very dore and entrance of the hive; where they will blow and breath in unto them: and when the Bees come flying forth thither, to ſee what the matter is, ſoone are they ſnapt up and devoured. And as for Frogs, all the ſort of them are ſuppoſed not to feele the prick of their ſting. Sheepe alſo are no friends of theirs: for if they get once entangled within their wooll, hardly can they get out again. Seeth but Crabfiſhes neer unto their hives, the very aire & ſmell therof will kill them. Over and beſides, Bees naturally are many times ſick; and that do they ſhew moſt evidently: a man ſhall ſee it in them by their heavie looks, and by their unluſtines to their buſineſſe: ye ſhall marke how ſome will bring forth others that be ſicke and diſeaſed, into the warme ſunne, and be readie to miniſter unto them and give them meat. Nay, ye ſhall have them to carie forth their dead, and to accompanie the corps full decently, as in a ſolemne funerall. If it chaunce that

the

the king be dead of ſome peſtilent maladie, the commons & ſubjects mourne, they take thought and grieve with heavie cheere and ſad countenance: idle they be, & take no joy to do any thing: they gather in no proviſion: they march not forth: onely with a certain dolefull humming they gather round about his corps, and will not away. Then requiſite it is and neceſſarie, to ſever and part the multitude, and ſo to take away the bodie from them: otherwiſe they would keepe a looking at the breathleſſe carcaſſe, and never go from it, but ſtill mone and mourne without end. And even then alſo they had need be cheriſhed and comforted with good victuals, otherwiſe they would pine away and die with hunger. To conclude, a man may ſoone know when Bees be well in health, by their chearefulneſſe and freſh hue that they carrie.

Chap. xix.

Diſeaſes of Bees.

THere be diſeaſes alſo and imperfections in their worke: and namely, when they fill not their combes, or bring not to perfection their young Bees. The firſt is called Cleros, like as the other Blapſigonia. Moreover, the ſound made by reverberation of the aire, which men call Eccho, is hurtfull unto them: for they feare mightily that reſounding noiſe, comming with a double ſtroke. Miſts and Fogs alſo trouble them much. As for Spiders, they be their greateſt enemies of all others, in caſe they can prevaile ſo much as to enter into the hive, and weave a copweb within it: for they kill all the Bees, and there is no remedie againſt it. Over and beſides, that Moth or Butterflie which uſeth to flie about the ſnuffe of a candle burning, (a poore ſilie flie otherwiſe and of baſe account) here doth much hurt, and that in divers ſorts. For not only it ſelfe eateth and gnaweth the waxe of their combes, but alſo they blow and leave behind them ſuch excrements as afterwards prove other moths. Alſo, whereſoever he goeth and flieth within the hive, he leaveth behind him a certaine ſubſtance, comming moſt from the duſtie downe of his wings, with which he thickeneth the threds (as it were) of copwebs. There breed likewiſe even in very wood, certain wormes, which above all things make means to eat the combes. What ſhould I ſpeake of their owne greedie feeding and glutting themſelves with too much liquour of the flowers, in the Spring time eſpecially? whereupon enſueth a daungerous fluxe and looſeneſſe of their bellie. As for Oile, it is not bane to Bees onely, but alſo to all other Inſects: eſpecially, if a man dip their heads in it, and then let them be in the Sunne; for preſently they will die of it. Many times Bees are cauſers of their owne death, with getting a ſurfet by exceſſive devouring of honie, namely, when they ſee it readie to be taken out of the hive: for otherwiſe they are very thriftie and overgreat ſparers, and ſuch, as at other times will drive out thoſe that waſt prodigally and be gluttinous, no leſſe than ſuch as be idle luskes, and ſlow at worke. Nay, even their owne honie doth them hurt: for if they be annointed therewith in their hinder parts, they will die upon it. Lo how many enemies this creature (ſo liberall and bountifull) hath! ſee, how many caſualties it is ſubject unto! and yet what be theſe I have alreadie rehearſed, in proportion and compariſon of thoſe which are omitted? Their remedies will we ſpeake of in convenient time and place: for this preſent, content I will my ſelfe to treat onely of their natures.

Chap. xx.

How to keepe Bees to the hive: and the manner of repairing them.

BEes joy in the clapping of hands, and ringing of braſen baſons: at the ſound thereof they will aſſemble and come together. Whereby, it is a plaine caſe, that they have the ſence of hearing. When they have done their taske of worke; when they have brought foorth their young ones, and fully accompliſhed all their devoire; then they performe a ſolemnitie of exerciſe: wherein after they have flowne abroad in the open aire at libertie, fetched their compaſſe about on high, gathered into rings and rounds in manner of tournament for their pleaſure: then at laſt when it is time of repaſt, they returne home againe. The longeſt time that they can live, (ſay, that they paſſe through all daungers, and no misfortune light upon them, but every thing that is adverſe, fall out well and happily) is not above ſeven yeares. And never was it knowne or heard of, that an hive continued above ten years. Some writers be of opinion, That dead Bees if they bee kept within houſe all a Winter, and when the Spring is come, bee laid forth in the hote Sunne

Sunne to frie, and one whole daie be kept covered all over with figtree aſhes, they will revive and be quicke againe. But ſuppoſe they be not onely dead, but their bodies alſo loſt and gone, ſome ſay they may be repaired and a new ſwarme engendred, by laying the freſh paunches of oxen or kine newly killed, with the dung, garbage and all, within a dunghill there to putrifie. *Virgill* affirmeth, that the carkaſſes of any young ſteeres, will doe the ſame: like as dead horſes will breed Waſpes and Hornets: and Aſſes carrion turne to be Beetle-flies, by a certaine metamorphoſis which Nature maketh, from one creature to another. And yet there be none of all theſe, but are ſeene to engender: howbeit the manner of their breed is much after the nature of Bees.

Chap. xxi.

Of Waſpes and Hornets.

WAſpes uſe to build them neſts on high, of earth and clay, and therein doe make their roomes and cells of wax. Hornets, in caves and holes under the ground. All theſe verily have their chambers made with ſixe corners, and yet their neſts conſiſt of ſome barke and ſubſtance like cobwebs. And as they be a barbarous and ſavage kind of creatures, ſo their young is not uniforme: one is readie to flie abroad, whiles another is yet but yong and not fledge, and a third a meere worme and grub ſtill. All theſe breed in the Autumne, and never in the Spring. When the moone is in the full, they encreaſe marveilouſly. As for the little Waſps, called Ichneumones (and leſſe they be than others) they uſe to kill one kind of Spiders called Phalangia, and carrie them into their neſts: they beſmeare them all over with a liniment, ſit over them, and ſo procreate their owne kind. Moreover, all the ſort of theſe live upon fleſh, contrarie to the manner of Bees, which will not touch a dead carcaſſe. But Waſpes hunt after the greater flies: and when they have whipt off their heads, carrie away the reſt of their bodies for their proviſion. The wild Hornets uſe to keepe in hollow trees. All winter time, like other Inſects, they lie hidden, and live not above two yeeres. If a man be ſtung with them, hardly he eſcapeth without an ague. And ſome have written, that 27 pricks of theirs will kill a man. The other Hornets which ſeeme to be the gentler, be of two ſorts. The leſſe of bodie, doe worke and travaile for their living, and they die when winter is come. But the greater ſort of them continue two yeeres: and thoſe alſo are nothing daungerous, but mild and tractable. Theſe make their neſts in the ſpring, and the ſame for the moſt part having foure dores or entries unto them, wherein the leſſer labouring Hornets aboveſaid, are engendred. When thoſe are quick, brought to perfection, and gotten abroad, they build longer neſts; in which they bring foorth thoſe that ſhall be mothers and breeders: by which time, thoſe young Hornets that worke, be readie to doe their buſineſſe and feed theſe other. Now theſe mothers appeare broader than the reſt: and doubtfull it is, whether they have any ſting or no? becauſe they are never ſeen to thruſt them forth. Theſe likewiſe have their drones among them, as well as Bees. Some thinke, that toward winter, theſe all doe looſe their ſtings. Neither Hornets nor Waſpes, have kings or ſwarms, after the manner of Bees: but yet they repaire their kind and maintaine their race by a new breed and generation.

Chap. xxii.

Of Silkewormes: the Bombylius, and Necydalus. And who firſt invented ſilke cloth.

A Fourth kind of flie there is, breeding in Aſſyria, and greater than thoſe above-named, called Bombyx, [*i.* the Silkeworme.] They build their neſts of earth and clay, cloſe ſticking to ſome ſtone or rocke, in manner of ſalt: and withall ſo hard, that ſcarſely a man may enter them with the point of a ſpeare. In which they make alſo waxe, but in more plentie than Bees: and after that, bring forth a greater worme than all the reſt before rehearſed. Theſe flies engender alſo after another ſort; namely, of a greater worme or grub, putting forth two horns after that kind: and theſe be certain Cankerwormes. Then theſe grow afterwards to be Bombylij; and ſo forward to Necydali: of which, in ſix moneths after, come the ſilkeworms Bombyces. Silkeworms ſpin and weave webs like to thoſe of the Spiders, and all to pleaſe our dainty dames, who thereof make their fine ſilkes and velvets, forme their coſtly garments and ſuperfluous apparell, which are called Bombycina. The firſt that deviſed to unweave theſe webs of the Silke-

worme,

worme, and to weave the ſame againe, was a woman in Coos named *Pamphila*, daughter of *Latous*: and ſurely ſhe is not to be defrauded of her due honour and praiſe, for the invention of that fine ſilke, Tiffanie, Sarcenet, and Cypres, which inſtead of apparell to cover and hide, ſhew women naked through them.

Chap. xxiii.

Of the Silkeworme in Cos.

IT is commonly ſaid, that in the Iland Cos there be certain Silkeworms engendred of flowers, which by the meanes of raine-ſhowers, are beaten downe and fall from the Cypres tree, Terebinth, Oke, and Aſh: and they ſoone after doe quicken and take life by the vapour ariſing out of the earth. And men ſay, that in the beginning, they are like unto little Butterflies naked; but after a while (being impatient of the cold) are overgrowne with haire; and againſt the winter, arme themſelves with good thicke clothes: for being rough-footed, as they are, they gather all the cotton and downe of the leaves which they can come by, for to make their fleece. After this, they fall to beat, to felt and thicken it cloſe with their feet, then to card it with their nailes: which done, they draw it out at length, and hang it betweene braunches of trees, and ſo kembe it in the end to make it thin and ſubtill. When all is brought to this paſſe, they enwrap and enfold themſelves (as it were) in a round ball and clew of thread, and ſo neſtle within it. Then are they taken up by men, put in earthen pots, kept there warme, and nouriſhed with bran, untill ſuch time as they have wings according to their kind: and being thus well clad and appointed, they are let go to doe other buſineſſe. Now as touching the wooll or fleece which they have begun, men ſuffer it to relent in ſome moiſture, and ſo anon it is ſpun into a ſmall thread, with a ſpindle made of ſome light Kex or Reed. This is the making of that fine Say, whereof ſilke cloth is made; which men alſo are not abaſhed to put on and uſe, becauſe in ſummer time they would goe light and thin. And ſo farre doe men draw backe now a daies from carrying a good corſlet and armour on their backes, that they thinke their ordinarie apparell doth over-lode them. Howbeit, hitherto have they not medled with the Aſſyrian Silkworme, but left it for the fine wives and dames of the city.

Chap. xxiiii.

Of Spiders, and their generation.

IT were not amiſſe to joine hereunto a diſcourſe of Spiders, for their admirable nature, which deſerveth a ſpeciall conſideration. Wherein, this is firſt to be noted, that of them there be many kinds, and thoſe ſo well knowne unto every man, that needles it is to particularize and ſtand much upon this point. As for thoſe which be called Phalangia, their ſtinging and biting is venomous, their bodie ſmall, of divers colours, and ſharpe pointed forward; and as they goe, they ſeeme to hop and skip. A ſecond ſort be blacke, and their feet are exceeding long. All of them have in their legs, three joints. The leaſt of this kind, called Lupi, ſpin not at all nor make any webs. The greater, ſtreteh foorth their webs before the ſmall entries into their holes within the ground. But the third kind of Spiders, be they which are ſo wonderfull for their fine ſpinning and skilfull workmanſhip: theſe weave the great and large cobwebs that wee ſee; and yet their verie wombe yeeldeth all the matter and ſtuffe whereof they be made. Whether it be, that at ſome certein ſeaſon naturally their belly is ſo corrupt (as *Democritus* ſaith:) or that within it there is a certain bed (as it were) which engendreth the ſubſtance of ſilke. But ſurely whatſoever it is, ſo ſure and ſteadie nailes the Spider hath; ſo fine, ſo round, and even a thread ſhe ſpinnes, hanging thereunto her ſelfe, and uſing the weight of her owne bodie in ſtead of a wherve; that a wonder it is to ſee the manner thereof. Shee beginneth to weave at the very mids of the web, and when ſhe hath laid the warpe, bringeth over the woofe in compaſſe round. The maſhes and marks ſhe diſpenſeth equally by even ſpaces; yet ſo, as every courſe groweth wider than other: and albeit they do encreaſe ſtill from narrow to be broader, yet are they held and tied faſt by knots that can not be undone. Marke, I pray you, how artificially ſhe hideth the ſnares in that net of hers, made into ſquares, to catch the poore flies. A man would not thinke (who ſeeth the long yarne in her web wrought ſerce-wiſe, ſmoothed and poliſhed ſo cunningly, and the verie manner of the wooſe ſo glewiſh and clammie as it is, of it ſelfe) that all were to any purpoſe, and ſerved for that which

ſhe

ſhe intendeth. See withall, how ſlacke and hollow the net is made, to abide the wind, for feare of breaking: and thereby ſo much the better alſo to fold and enwrap whatſoever commeth within her reach! What a craft is this of hers to leave the upper part thereof in the front undone, as if ſhe were wearie (for ſo a man may gueſſe, when he can hardly ſee the reaſon) and (as it is in hunters net and toile) that ſo ſoone as thoſe nets be ſtumbled upon, they ſhould caſt the flies headlong into the lap and concavitie of the net? To come now unto her neſt and hole: Is there any Architecture comparable to the vault and arched frame? And for to keepe out the cold, how is it wrought with a longer and deeper nap than the reſt! What ſubtiltie is this of hers, to retire into a corner ſo farre from the mids, making ſemblance as though ſhe meant nothing leſſe than that ſhe doth, and as if ſhe went about ſome other buſineſſe! Nay, how cloſe lyeth ſhe, that it is impoſſible for one to ſee, whether any bodie bee within or no! What ſhould I ſpeake of the ſtrength that this web hath to reſiſt the puffes and blaſts of winds? of the toughneſſe to hold and not breake, notwithſtanding a deale of duſt doth weigh and beare it downe? Many a time ye ſhall ſee a broad web reaching from one tree to another: and this is when ſhe learneth to weave and beginneth to practiſe and trie her skill. She ſtretcheth a thread, and warpeth in length from the top of the tree downe to the very ground; and up again ſhe whirles moſt nimbly by the ſame thread: ſo as at one time, ſhe ſpinneth and windeth up her yarne. Now if it chaunce that any thing light into her net, how watchfull, how quick-ſighted, how readie is ſhe to run? Be it never ſo little ſnared even in the very skirt and utmoſt edge thereof, ſhe alwaies skuds into the mids; for ſo by ſhaking the whole net, ſhe entangleth the flie or whatſoever it be, ſo much the more. Looke what is ſlit or rent therein, ſhe preſently doth mend and repaire, and that ſo even and ſmall, that a man cannot ſee where the hole was derned and drawne up againe. Theſe Spiders hunt alſo after the yong Lizards: firſt they enfold and wrap the head within their web: then, they catch hold and tweake both their lips togither, and ſo bite and pinch them. A worthy fight and ſpectacle to behold, fit for a king, even from the ſtately Amphitheatres, when ſuch a combat chanceth.

Moreover, there bee many preſages and prognoſtications depend upon theſe Spiders: for againſt any inundations and overflowings of rivers, they weave and make their cobwebs higher than they were wont. In faire and cleare weather, they neither ſpin nor weave: upon thicke and cloudie daies, they be hard at worke: and therefore many cobwebs be a ſigne of raine. Some thinke, it is the female that ſpinneth and weaveth; and the male, which hunteth and getteth in the proviſion for the familie: thus ordering the matter equally in earning their living, as man and wife togither in one houſe. Spiders engender togither with their buttocks, and little worms they doe lay like egs. For, conſidering that the generation of all Inſects beſides, in a manner can be declared and ſhewed no otherwiſe, I muſt not deferre the relation of it, being ſo admirable as it is. Well then, theſe egs they do lay in their webs, but ſcattering here and there, becauſe they uſe to skip and leape when they thruſt them forth. The Phalangius onely ſitteth upon the egges within the very hole, and thoſe in great number: which begin not ſo ſoon to peepe, but they eat the mother, yea and oftentimes the father likewiſe, for he helpeth her alſo to coove. And theſe kind of Spiders bring commonly 300 at a time: whereas all the reſt have fewer. They ſit ordinarily thirtie daies. As for yong Spiders, they come to their full growth and perfection in 4 weeks.

Chap. xxv.

Of Scorpions.

SEmblably, the land Scorpions doe lay certaine little worms or grubs in manner of egs: and when they have ſo done, periſh likewiſe for their labour, as the Spiders. Their ſtings be as venomous and daungerous, as thoſe of ſerpents: and albeit there enſue not thereupon ſo preſent death, yet they put folke to more paine a great deale; inſomuch as they languiſh and lie drawing on three daies before they die. If a maiden be ſtung with one of them, ſhe is ſure to die of it: other women alſo for the moſt part catch their death thereby, and hardly eſcape. Yea and men alſo find their poiſon to be mortall and deadly, if they be ſtung in a morning by them when they creepe newly out of their holes, faſting, and before that they have diſcharged their poiſon by pricking one thing or other firſt. Their ſting lieth in their tails, and readie they are with it alwaies to ſtrike. There is not a minute of an houre but they practiſe and trie how they can thruſt it forth, (ſo malicious they be) becauſe they would not looſe and miſſe the firſt opportunitie preſented

unto

unto them. They ſtrike both ſidelong or byas, and alſo crooked and bending upward, with their taile. The poiſon that commeth from them, is white, as *Apollodorus* ſaith: who alſo hath ſet down nine ſorts of them, and diſtinguiſhed them by their colours, which me thinkes, was but ſuperfluous and more than needed; conſidering that a man cannot know by his diſcourſe, which of them he would have to be leaſt hurtfull and noiſom. He affirmeth, that ſome have double ſtings, and that the males are more curſt and cruell than the females: for he avoucheth, that they doe engender togither, and that the males may be knowne by this, That they are long and ſlender. Moreover, that they be all of them venomous about mid-day, when they bee enchaffed and ſet into an heat, by the ſcalding and ſcortching ſunne: alſo when they be drie and thirſtie, they cannot drinke their full and quench their drought. This is well knowne, that thoſe which have ſeven joints in their tailes, be more fell than the reſt: for it is ordinarie in them to have but ſix. In Affricke, this peſtilent creature uſeth to flie alſo, namely, when the Southerne winds blow, which carrie them aloft in the aire and beare them up as they ſtretch forth their armes like oares. The ſame *Apollodorus* before-named avoucheth plainly, that ſome of them have very wings indeed. The people called Pſylli (who making a gainfull trade and merchandiſe of it, to bring in hither unto us the poiſons of other countries, and by that meanes have filled Italie with forrein venomous beaſts) have many times aſſaied to bring them hither; but never would they abide ſo much as the aire of Sicilie, nor live in that tract. Howbeit we ſee of them now and then in Italie, but harmleſſe they be all: like as in many other places beſides, and namely about Pharus in Ægypt. In * Scythia they be ſo daungerous, that they kill their hogs; which otherwiſe be creatures that can eat ſuch poiſons, and yet live and doe full well. And if it be true that is ſaid, the black ſwine die more ſpeedily, eſpecially if after they be ſtung, they goe into the water and drench themſelves. If a man bee ſtung with a Scorpion and drinke the powder of them in wine, it is thought to be preſent remedie. Men hold, that nothing is more contrary unto them than oile, if they be dipped therein: as alſo to the Stelliones, which are made like Lizards, and doe no hurt to them onely, becauſe they are without bloud. Like as the Scorpions alſo are ſaid to be harmeleſſe to any thing that is bloudleſſe. Some are of opinion, that they likewiſe devoure their young, ſave onely one who is more ſlie and craftie than the reſt, who gets upon the rumpe behind of the mother, and there ſits, being aſſured that he is ſafe enough in that place, both from ſting of taile and tooth in mouth. This Scorpion revengeth the death of his other brethren and ſiſters: for in the end he skips upon the back of father and mother both, where he gnaweth and eateth them to death. To conclude, Scorpions uſually doe breed eleven young ones at a time.

* Or rather, in Caria.

Chap. XXVI.

Of Stellions and Graſhoppers.

The Stellions after a ſort be of the nature of Chamæleons, living onely upon dew and Spiders. Graſhoppers alſo live much after the ſame manner. And they be of two ſorts; namely, the leſſer, which come firſt, and die laſt: but thoſe be mute. The latter breed, ſeldome or never flie: and thoſe likewiſe are of two kinds. Such as ſing alowd, be named Echetæ; and the leſſer ſort of them Tettigoniæ: but thoſe other are more ſhrill, and chant full merrily. The male Graſhoppers in both kinds, doe ſing: the females are ſilent. The people of the Eaſt countries make their food of them: even the very Parthians, who otherwiſe abound in wealth. The hee Graſhoppers are the ſweeter meat before the time of engendring: and the ſhee Graſhoppers afterward, by reaſon of egs knotted within them, and thoſe be white. They engender with their bellies upward. They have a certain roughneſſe upon their backs, which is very ſharpe, and therwith they worke a hollow gutter in the ground, as a neſt to lay their egs and breed in. At the firſt, appeareth a little worme or magot; whereof commeth afterward that which they call Tettigometra, as one would ſay, the mother of Graſhoppers, or the great graſhopper. For about the Sunſtead in Summer, the utmoſt cruſt or caſe thereof breaketh, and then out they flie, and alwaies in the night. At the firſt, blacke they be and hard withall. Of all creatures that are known to live, the Graſhoppers alone have no mouth: in ſtead whereof, they have a certaine ſharpe pointed thing in their breaſt (like unto their tongues that carrie ſtings in their mouths) and with it they ſucke and licke in the dew. Their breaſt is full of little pipes, from whence commeth that ringing noiſe of the Echetæ which we doe heare, as I have above ſaid. Moreover, their bellie is

emptie and hath nothing in it: When a man raiſeth them, ſo as they bee thereby forced to flie, they yeeld foorth a certaine humour: which is the onely argument that they bee nouriſhed of the dew. They have moreover this one marke from all other creatures living, namely, no concavitie of their bodie to be ſeen whereby to void out any excrements. So dim-ſighted they be, that if a man chaunce to come neare unto them, plucking in and ſtretching out his finger before them, they will preſently leape upon it, ſuppoſing that it is ſome leafe that waggeth. Writers there bee, that make two more kinds of them, namely, the greater, which appeare at the firſt ſpring and budding of trees; whereupon it is called Surcularia: and a leſſer, which ſome name Frumentaria, others Avenaria. For this ſheweth it ſelfe when corne is ripe and begins to die in the ſtraw.

Chap. xxvii.

Places wherein there be no Graſhoppers: alſo where they are mute.

IN countries bare and naked of trees and wood, there breed no Graſhoppers: and therefore ye ſhall have them at Cyrene, about the towne, but not in the plaines and fields thereof. Neither ſhall a man meet with them in woods that be cold and full of ſhade. It ſeemeth alſo, that they take a liking to ſome one quarter more than another: for in the region of the Mileſians, few places there be that have them: but in Cephalenia, there is a river that doth limit and bound them: for of the one ſide there be plentie of them; and on the other, few or none. In the territorie of Rhegium they be all mute. Paſſe the river once and come into the Locrians countrey, yee ſhall heare them chaunt luſtily. Wings they have like to thoſe of Bees, but larger, to the proportion of their bodies.

Chap. xxviii.

The wings of Inſects, and ſundrie kinds of Beetles.

OF Inſects, ſome carrie two wings about them, as the flies: others foure, as Bees. As for Graſhoppers, they flie with wings made like pellicles or fine skins. In ſumme, all Inſects which be armed with a ſting in their bodie or taile, have foure a peece: and none againe have above twaine that carrie their offenſive weapon in the mouth. To the former, Nature hath given it for to revenge; to the other, onely to feed themſelves, and content their appetite. Moreover, plucke from any of them their wings, there will never come new in the place. None that have a ſting in their taile, be double winged. Some Inſects there be, which have growing a certaine huske or cod over their wings, for the ſafeguard and defence thereof, as the Beetles: and the wings of ſuch be thinner and more brittle than others. Sting have they none, but a certaine kind of the great ones be armed with two long hornes boking out before them, and two-forked they be and toothed like pinſons, in the top, which (when they liſt) they can bring togither and make them meet, and ſo nip and bite withall. Theſe Beetles, folke uſe to hang about the necke of young babes, as preſent remedies againſt many maladies. Such Beetles, *Nigidius* calleth Lucanes. Over and beſides, there is another ſort, which tumbling upon their backe in dung, do roll it into great round balls with their feet; and therein doe make neſts for to beſtow the little grubs (which are their young) againſt the cold of winter. Some there be that uſe to flie up and down, and where ever they go, make a great buzzing noiſe as if they lowed. Ye ſhall have others again that keepe in medowes; yea and Creckers that haunt the hearth and ſtocke of chimnies, where the make many holes, and lie cricking alowd in the night.

The Glo-wormes, are named by the Greeks Lampyrides, becauſe they ſhine in the night like a ſparke of fire: and it is no more but the brightnes of their ſides and taile: for one while as they hold open their wings, they glitter; another while when they keepe them cloſe togither, they be ſhadowed and make no ſhew. Theſe Glowbards never appeare before hay is ripe upon the ground, ne yet after it is cut downe. Contrariwiſe, the flies called Blattæ, live and be nouriſhed in darkeneſſe: light is an enemie unto them, and from it they flie. They breed commonly in baines and ſtouves, of the moiſt vapours that be there. Of the ſame kind there be other great Beetles red in colour, which worke themſelves holes in the drie earth, where they frame certaine receptacles like unto Bees combs, little and ſmall, full of pipes reſembling hollow ſpunges; and

all

all for a kind of baſtard honey, whereof yet there is ſome uſe in Phyſicke. In Thrace neare to Olynthus, there is a little territorie or plot of ground, where this one creature (among all other) cannot live; whereupon the place is called Cantharolethus. The wings generally of all Inſects, bee whole, without any ſlit: and none of them hath a taile but the Scorpion. Hee alone hath not onely armes, but alſo a ſting in the taile. As for the reſt, ſome of them have a ſharpe pricked weapon in their muzzle, as namely, the Breeſe or great Horſe-flie, called in Latine *Aſilus* or *Tabanus*, whether you will. Likewiſe Gnats alſo, and ſome kind of flies. And theſe prickes ſerve them in good ſtead both for mouth and tongue. Some of theſe are but blunt, and not good for to pricke, but onely handſome to ſucke withall, as flies, which have all of them a tongue, beeing evidently fiſtulous and like a pipe. And none of all theſe have any teeth. There be Inſects with little hornes proaking out before their eyes, but weake and tender they be, and good for nothing; as the Butterflies. And there bee againe, that are not winged, and ſuch be the Scolopendres. All Inſects that have legges and feet, goe not directly, but bias and crooked. Of which, ſome have the hinder legges longer than the former, and ſuch bend hooked outward; as the Locuſts.

Chap. xxix.

Of Locuſts.

THe Locuſts lay egges in Autumne, by thruſting downe into the ground the fiſtule or end of their chine, and thoſe come forth in great abundance. Theſe eggs lie all winter long in the earth; and at the end of the ſpring the yeere following, they put out little Locuſts, blacke of colour, without legs, and creeping upon their wings. Hereupon it commeth, that if it be a wet ſpring and rainie, thoſe egs periſh and come to no good: but in a drie ſeaſon, there will be greater encreaſe and ſtore of Locuſts the Summer enſuing. Some writers hold opinion, that they lay and breed twice a yeare: likewiſe that they periſh and die as often. For they ſay, that when the ſtar Vergiliæ doth ariſe, they breed: and thoſe afterwards about the beginning of the Dog-daies, die; and others then come in their place. Others ſay, that they engender and breed againe their ſecond litter, at the full or ſetting of Arcturus. True it is indeed, that the mothers die ſo ſoone as they have brought foorth their little ones, by reaſon of a ſmall worme that preſently breedeth about their throat, which choketh them. And at the ſame time, the males likewiſe miſcarrie. See what a little matter (to ſpeake of) bringeth them to their death! and yet a woonder it is to conſider, how one of them when it liſt will kill a ſerpent: for it will take him faſt by the chaws, and never lin biting untill ſhee hath diſpatched him. Theſe little beaſts breed no where but in plaine and champion countries, namely, ſuch as be full of chinkes and creviſes in the ground. It is reported, that there be of them in India, three foot long: where the people of the countrey uſe their legs and thighes for ſawes, when they be throughly dried. Theſe Locuſts come by their death another way, beſides that above-named: for when the wind taketh them up by whole troupes togither, they fall downe either into the ſea, or ſome great ſtanding pooles. And this many a time happeneth by meere chaunce and fortune; and not (as many have ſuppoſed in old time) becauſe their wings are wet with the night dew. For even the ſame Authors have written, that they flie not in the night for cold. But little know they, that it is ordinarie with them to paſſe over wide and broad ſeas, and to continue their flight many daies togither without reſt. And the greater wonder is this, that they know alſo when a famine is toward: in regard wherof, they ſeeke for food into farre countres: in ſuch ſort, as their comming is ever holden for a plague of the gods, proceeding from their heavie wrath and diſpleaſure. For then commonly they are bigger to be ſeene, than at other times: and in their flight they keepe ſuch a noiſe with their wings, that men take them for ſome ſtraunge foules. They ſhade and darken the very Sunne as they flie, like unto a great clowd: inſomuch, as the people of every country behold them with much feare, leaſt they ſhould light in their territorie, and over-ſpread the whole countrey. And verily their ſtrength is ſuch, that they hold out ſtill in their flight: and as if they had not enough of it to have flowne over ſeas, they give not over to traverſe mightie great countries in the continent. And looke in what place ſoever they ſettle, they cover whole fields of corne with a fearfull and terrible clowd: much they burn with their very blaſt, and no part is free but they eat and gnaw even the very dores of mens dwelling houſes. Many a time they have been knowne to take

their flight out of Affricke, and with whole armies to infeſt Italie: many a time have the people of Rome, fearing a great famine and ſcarcitie toward, beene forced to have recourſe unto *Sibyls* bookes for remedie, and to avert the ire of the gods. In the Cyrenaick region within Barbarie, ordained it is by law, every three yeares to wage warre againſt them, and ſo to conquer them: that is to ſay, firſt to ſeeke out their neaſts, and to ſquaſh their egges; ſecondly, to kill all their young; and laſt of all, to proceed even to the greater ones, and utterly to deſtroy them: yea, and a greevous puniſhment lieth upon him that is negligent in this behalfe, as if hee were a traitour to his prince and countrey. Moreover, within the Iſland Lemnos there is a certaine proportion & meaſure ſet down, how many & what quantitie every man ſhall kill; and they are to exhibit unto the magiſtrate a juſt and true account therof, and namely to ſhew that meaſure full of dead Locuſts. And for this purpoſe they make much of Iaies, Dawes, and Choughs, whom they doe honour highly, becauſe they flie oppoſite againſt the Locuſts, and ſo deſtroy them. Moreover, in Syria they are forced to levie a warlike power of men againſt them, & to make riddance by that means. See in how many parts of the world this hurtfull and noiſome vermine is diſperſed and ſpread: and yet in Parthia they are taken for very good meat. The voice that they have (ſuch as it is) ſeemeth to come from the hinder part of their head: for about that place where the joincture is of the ſhoulders to the nape of the necke, they are ſuppoſed to have certaine teeth, which by grating and grinding one againſt the other, doe yeeld a kind of craſhing noiſe: and namely, about the time of both the Æquinoctials: like as the Graſhoppers at midſummers Sunſtead. Locuſts engender after the manner of all other Inſects which do engender: to wit, the female carieth the male: and ſhe lying underneath, bendeth up the very end of her taile againſt the other: and thus they continue a good while ere they part aſunder. To conclude, the males of all this kind be leſſe than the females.

Chap. xxx.

Of the ordinarie Piſmires of our countrey in Italie.

Moſt part of Inſects do breed a grub or little worme. For even the very Ant in the Spring time doth bring forth ſuch wormes like egges. Theſe ſilie creatures labour and travell in common, as the Bees doe: this onely is the difference, that Bees doe make their owne meat; whereas theſe ſtore up only their food and proviſion. As touching their ſtrength, if a man would compare the burdens that they carie, with their own bodies, he will find and confeſſe, that there is not a creature againe in the world, for that proportion, ſtronger. And how doe they carrie them? even with their very mouths. Howbeit, if they meet with any greater load than they can bite betweene their chawes, then they ſet their ſhoulders to it, and with their hinder legs alſo make meanes to drive it forward. They have among them a certain forme of Commonwealth: they remember: they are not without care and fore-caſt. Looke what ſeeds or graines they do lay up for proviſion, ſure they will be to gnaw it firſt, for feare they ſhould ſprout and take root again and ſo grow out of the earth. If a corne or ſeed be too big for their carriage, they divide it into peeces, that they may goe with it more eaſily into their houſe. If their ſeeds within, chaunce to take wet, they lay them abroad, and ſo drie them. They give not over worke by night, when the Moone is at the full: but when ſhe is in the change, they reſt and play them. When they are at worke, how painefull are they? how buſie, how induſtrious? And for as much as they make their purveiance in diverſe places, and bring from all parts, without knowledge one of the other: they keepe among them certain market daies, for a mutuall enterview and conference together. And verily, it is a world to ſee, how then they will aſſemble; what running, what greeting, what entercourſe and communication there is betweene them, whiles they are inquiſitive, as they meet one with another, What newes abroad: even like marchants at a Burſe. Their waifare is ſo ordinarie and continuall, that wee may ſee the very hard flint and pebble ſtones worne with their paſſage too and fro: wee may ſee (I ſay) a very path-way made where they uſe to goe about their worke: whereby, let no man doubt of what force and power continuall uſe is, of any thing whatſoever, be it never ſo little. Of all living creatures, they onely and men, doe enterre and burie their dead among them. To conclude, throughout all Sicilie a man ſhall not ſee a flying Ant.

Chap.

Chap. xxxi.

Of Indian Pismires.

IN the temple of *Hercules* at Erythræ, there were to bee seene the hornes of a certaine Indian Ant, which were there set up and fastened for a wonder to posteritie. In the countrey of the Northerne Indians named Dardæ, the Ants doe cast up gold above ground from out of the holes and mines within the earth: these are in colour like to cats, and as big as the *wolves of Ægypt. This gold before said which they worke up in the winter time, the Indians do steale from them in the extreame heat of Summer, waiting their opportunitie, when the Pismires lie close within their caves under the ground, from the parching Sun: yet not without great daunger. For if they happen to wind them and catch their sent, out they goe, and follow after them in great hast: and with such furie they flie upon them, that oftentimes they teare them in peeces; let them make way as fast as they can upon their most swift Camels, yet they are not able to save them. So fleet of pace, so fierce of courage are they, to recover gold that they love so well.

*Or Foxes.

Chap. xxxii.

The diverse generation of some Insects.

MAny Insects there be that breed after another sort, than the former above specified: and principally of dew, which setleth upon the Radish leafe in the beginning of Spring. For being made thicke, and hardened with the heat of the Sunne, it groweth to the bignesse of the graine of Millet. From it ariseth a little grub, and three daies after it becommeth a kind of canker-worme: and so in processe and tract of time it groweth bigger without mooving at all, and gathered an hard huske or case about her: onely if a man touch the webbie panicles, wherein the said worme lieth enwrapped, it will seeme to stir. This is called Chrysalis: and after some time, when the kex or huske is broken, he proveth a faire flying butter-flie.

Chap. xxxiii.

Of Insects that breed in wood, and of wood.

SEmblably, there be some Insects engendred of raine drops standing upon the earth; and others also in wood. For not onely the ordinarie wood-wormes breed in timber, but also certaine Brees and Horse-flies come of it, yea, and other such like, whensoever the wood is dotted with overmuch moisture. Like as within one of our bodies there have been found broad wormes, of thirtie foot in length, yea, and sometimes with the vantage. Also there have ben seen in dead carions many wormes: and the very flesh of men whiles they be alive, is apt to breed such vermine: and so is the haire of the head to harbour lice; of which filthie and lothsome creatures, both *Sylla* the Dictatour, and also *Alcman* (one of the most renowmed Greeke Poets) perished. Moreover, birds are much infested and troubled therewith. And as for Feasants, they will die therof, unlesse they bestrew themselves with dust. Of such beasts as carie haire, it is verily thought that the Asse alone and Sheepe are free from this kind of vermine. Some kind of cloth likewise is apt to engender lice, & especially those which are made of wooll, that Sheepe bare which were worried of Wolves. Over and besides, I find in some writers, That there is some water will engender this vermine, if we doe but wash therein. For even in waxe there will breed mites, but such are thought to be of all creatures that have life, the very least. Also, ye shall have others again engender of filthie drie dust, namely, fleas, which use to skip and hop with their hinder feet lustily like these tumblers and vautours. Last of all, there be that come of a certaine moist powder in cranies of the ground, and those be our ordinarie little flies.

Chap. xxxiiii.

Of one kind of creature that hath no passage to void excrements.

THere is a creature as foule and illfavoured as the rest, which hath evermore the head fast sticking within the skin of a beast, and so by sucking of bloud liveth, and swelleth withall. The only living creature of all other that hath no way at all to rid excrements out of the

bodie: by reaſon whereof, when it is too full, the skin doth cracke and burſt, and ſo his very food is cauſe of his owne death. In Horſes, Aſſes, and Mules, theſe doe never breed. In Kine and Oxen they be common: and otherwhiles in dogs, who are peſtered not onely with theſe tickes, but alſo with all other vermine abovenamed. And in Sheepe and Goats a man ſhall find none other but tickes. It is as ſtrange a thing alſo to ſee, how the horſeleeches which be nouriſhed in ſtanding waters of fennes, are thirſtie after bloud. For theſe will thruſt their whole head into the fleſh for to draw and ſucke out bloud. Finally, there is a kind of flies that plagueth dogges, and none els: they are buſie commonly about their eares, where they will bite & ſting them ſhrewdly; for there they cannot come by them with their teeth to ſnap and kill them.

Chap. xxxv.

Of Moths and Gnats.

WOoll and cloth when they be duſtie breed moths, eſpecially if a Spider alſo be gotten within them. For the Spider is very thirſtie, and by reaſon that he drinketh up all the moiſture of the cloth or wooll, he increaſeth the drineſſe much more. In paper alſo they will engender. A kind of them there is that catie their coats and caſes with them, as Cockles and Snailes doe: but they have feet to be ſeen. If they be turned out of their coats or husks, they preſently die. If they grow ſtill, they will proove to be Chryſalides. The wild fig-tree doth breed certaine Gnats called Ficarij. As for the Cantharides or French greene flies, they be bred of little wormes in Fig-trees, Peare-trees, wild Pines or Pitch-trees, the Eglantine brier, and Roſes: A venomous vermine this is, howbeit, medicinable in ſome ſort. The wings be they that are good in Phyſicke: caſt them away, and the reſt is deadly. Moreover, there be other Gnats, that foure things will engender. And no marvell, ſeeing that there be ſome wormes found in ſnow, & thoſe are white, if the ſnow be but thin and new fallen. But in caſe it have lien long, and be deepe, a man ſhall find in the mids within, thoſe that are red, (for ſnow alſo if it be old, waxeth red) rough and hairie, greater alſo than the reſt, and dull of motion.

Chap. xxxvi.

Of the fire-flie, called Pyralis or Pyrauſta.

THe fire alſo, a contrarie element to generation, is not without ſome living creatures engendred therein. For in Cypres, among the forges and furnaces of copper, there is to be ſeen a certaine foure-footed creature, and yet winged, (as big as the greater kind of flies) to flie out of the very middeſt of the fire: and called it is of ſome Pyralis, of others Pyrauſta. The nature of it is this: So long as it remaineth in the fire, it liveth: but if it chaunce to leape foorth of the furnace, and to flie any thing far into the aire, it dieth. There is a river in the kingdome of Pontus called Hypanis, which about the Summer Sunneſtead, uſeth to bring downe the ſtreame certain thin pellicles or bladders like unto grape kernils: out of which there breaketh forth and iſſueth a foure-footed flie, like unto thoſe abovenamed: and it liveth not above one day, whereupon it is called Hemerobion, [*i.* a day-flie.] All other Inſects of like ſort, may continue and live a ſevennight. The Gnat and the little wormes, three weekes: but ſuch as bring foorth their young alive, may endure a full month. As for the Metamorphoſis of theſe creatures from one forme to another, it is moſt commonly performed in three daies, or foure at the moſt. All the reſt of the winged kind, lightly die in Autumne: among which, the Brees and Horſe-flies are ordinarily blind firſt. To be ſhort, thoſe flies which have been drowned, and ſo come to their death, if they be laid and kept in hote cinders or aſhes, will come againe to themſelves, and revive.

Chap. xxxvii.

A diſcourſe Anatomicall, of the nature of living creatures, part by part, according to their particular members.

The head. IT remaineth now to treat of the ſeverall parts of the bodie, and over and above the former deſcription, to particularize and ſet downe the ſtorie of one member after another. Firſt therfore, this is generall, that all living creatures whatſoever having bloud, have alſo heads. And few

A few of them have cops or crested tufts upon their heads, unlesse it be birds, and those are of diverse formes & fashions. The Phœnix is adorned with a round plume of feathers, out of the mids of which there groweth another little pennache. Peacockes carie upon their heads a tuft (as it were) of little hairie trees: and the Stymphalides, a locke of crisped and curled haires. Pheasants have feathers standing up like hornes. The pretie Titmouse or Nonett is filletted or coifed upon the head: and in lieu thereof, the Larke hath a little peruke of feathers, and thereupon at first it was called Galerita, but afterwards after the French word Alanda, and of it one of the Romane Legions tooke the name, because of their pointed morions. Wee have written alreadie of the Ginnie or Turkie Cockes and Hens, upon whom Nature hath bestowed a folding crest, lying from the very bill, over the middest of the head, unto the nape of the necke. She hath given likewise unto all the sort of Seamewes, Fen-duckes, and Moore-hens, certain cops and crisped tuffes: to the Woodpeck also and Baleare Crane. But above all others, the house dunghill Cocks carie upon their heads the goodliest ornament of their comb, and the same consisting of a massie and fleshie substance, endented besides like a saw. And yet we may not properly say it is either flesh, gristle, or callositie, but composed of some particular matter by it selfe, which cannot well bee named. As for the crests of Dragons, I could meet with no man hitherto that ever saw them. Crests, Tufts, and Combes.

B To come now to Hornes, there be many fishes (as well of the sea as fresh waters) and also Serpents, that have hornes in divers and sundrie sorts. But to speake a truth and properly, they be no hornes indeed, for those pertaine onely to four-footed beasts. As for *Actæon* and *Cippus*, of whom we read in our Latine historie, that they had hornes, I take them to be meere fables, and no better. Certes, in nothing more hath Nature taken her pleasure than in this: as if shee had meant to sport and make her selfe merrie in these armes and weapons of beasts. For in some shee hath made them knagged and braunched, as in Deere, both red and fallow; in others, plaine and uniforme, without tines, as in the Spitters, a kind of Stag, which thereupon bee called Subulones in Latine, for that their hornes be like a shomakers *Nall blade. There be againe which have broad hornes, and plated like a mans hand, with fingers standing out of them, whereupon the beasts that beare them be called Platycerotes, [*i.* broad horned.] Roe Buckes have by nature branched heads, but they are small: and these doe not mew and cast them yearely, as the Stag and Bucke. All the sort of Rams be armed with crooked hornes, turning and winding with certaine revolutions, as if they were gantlets or whorlebats, given them by Nature to thumpe and jurre withall. Hornes. Subula.

D Buls hornes be streight and upright, readie alwaies to doe a mischeefe. The females of this kind, to wit, Cowes, are horned as well as Buls: wheras in many others, the males only be in that wise armed. The wild Goats called Roch-goats have their hornes turning backward, whereas in fallow Deere they bend rather forward. There is a kind of Roe Bucke, called in Affricke Addace, which the Greekes have named Strepsiceros, and they have upright hornes: but they are furrowed and wreathed round about, as if they were ribbed like the backe of a Lute; or rather chamfered like the ridge of a land, and alwaies sharpe pointed with a tip. Ye shall have droves and heards of beasts, namely, Kine and Oxen in Phrygia, which will stir and wag their hornes like eares. And those in the kingdome of the Troglodites, carie their hornes pendant directly to the ground, which is the cause, that as they eat, they are forced to beare their neckes awrie, and looke at one-

E side. Some have but one horne apeece, and that either in the mids of the forehead, as the Oryx; or else in the nose, and muffle, as the Rhinoceros, whereof we have written before. In summe, there be that have strong and hard hornes to butt with: others to strike and gore withall: some crooking forward, others bending backward. In some, they are good onely to tosse and fling, and that in diverse manners. For there be of them that give backe, others turne one against another, and some even joine and meet together: but all run up sharpe pointed in the end. A kind of beasts there is, that use their hornes in stead of hands, to scratch their bodies when it itcheth: & others serve their turne to sound the way before them, as certain shell-Snailes and Winkles. And these hornes given for this purpose, are some of them of a fleshie substance, as those of the Serpents called Ceraſtæ: and otherwhiles one alone without a fellow. As for the Periwinckles and Snailes

F aforesaid, they are never without twaine a peece; and at this passe they have them, to put out and draw in as they list. In Buffles hornes, the barbarous people of the North parts use to drinke: and yee shall have the hornes of one Buffles head to hold full two measures, called Vrnæ, which is about eight gallons. In some countries men head their speares and javelines with horne. With us in Italie they be cut into thin plates, and serve for lanternes: and surely they are so transparent and

cleare,

cleare, that they make the candle (within encloſed) to caſt the greater light, and farther off. Nay, they are good for many other toies of delight and pleaſure: inſomuch, as ſome paint & die them with ſundrie colours, others verniſh and anneile them: and yee ſhall have men to make thereof their fine inlaid workes in Marquettrie of divers colours, called therupon Ceroſtrata. All hornes in manner be hollow, ſave that as they grow toward the pointed tip, they bee ſolide and maſſie: onely Deeres both red and fallow, are ſound and entier throughout: and every yeare they fall off. Husbandmen in the countrey, when they ſee their Oxe hooſes ſurbatted and worne too neere the quicke with overmuch travell, annoint their hornes with ſweet greaſe, and that is the way to make them grow againe. And in very truth the hornes of theſe beaſts are of ſo pliable a ſubſtance, and eaſie to be wrought, that as they grow upon their heads, even whiles the beaſts are living, they may with boiling waxe bee bended and turned every way as a man will: yea, and if they bee cut when they breake new forth out of the skin, they may be eaſily writhed to grow ſevered in ſundry parts, ſo as every head may ſeeme to have foure hornes. For the moſt part, the hornes of Cowes are more tender and thinner than the other: like as wee ſee it is in the females of ſmaller beaſts. Ewes have none at all: ne yet Hinds and Does: no more than the beaſts that have feet cloven and devided into many toes: or thoſe that be whole hooſed, except the Indian Aſſe, who is armed with one horne and no more. Beaſts cloven footed in twaine, have likewiſe two hornes: but none at all have they which are toothed in the upper mandible. They that make this reaſon, Becauſe the matter of their teeth runneth all into the horne, and ſo contrariwiſe; are deceived, and ſoone convinced by this, That Hinds and Does are toothed no more than Stags and Bucks, and yet are not horned. In other beaſts the hornes grow to the very bone of the head, in Deere onely they come out of the skin, and are graffed no deeper. Fiſhes of all living creatures have the biggeſt heads, for the proportion of their bodies: haply, becauſe they might the better dive under water and ſinke to the bottome. No kind of Oiſters have any head at all: no more than Spunges, or any other in manner, which want all their ſences but onely feeling. Some have heads indeed, but within their bodie, and not devided apart from it, as Crabs and Creifiſhes.

*With us it is otherwiſe.

Haire. Mankind of all living creatures hath moſt haire on the head, even men as much as women: as we may ſee in thoſe countries, where they never cut their haire, but let it grow. And namely in Savoy, Dauphine, and Languedoc about the Alpes, where men and women both weare long haire: and thereupon a part of France is called Comata. And yet this is not ſo generall, but that the nature of ſome land and ſoile, may make ſome alteration and varietie. For the Myconians naturally have no haire at all: like as the Caunians be all ſubject to the diſeaſe of hard and ſwelling Spleenes, even from their mothers wombe. Some reaſonleſſe creatures likewiſe are by nature bald, as Oſtriches, and certaine *water Ravens, which of the Greekes are named therupon Phalacro-coraces. Seldome doe women ſhed their haire cleane, and become bald: but never was there any guelded man knowne to be bald: nor any others that be pure virgins, and have not ſacrificed unto *Venus*. The haire growing beneath the ventricles of the brain, and under the crown of the head, like as alſo about the temples and eares, falleth not off quite. Man alone of all creatures, groweth to be bald: I ſpeak not of thoſe that are ſo by nature. Men, women, and horſes, wax gray haired: men and women both, begin at the fore-part of their heads to be griſlie, and afterwards behind. Men and women alone are double crowned.

*Or rather Alpine.

Braine-pan. Some creatures have the bones of their skull flat, plaine, thin, and without marrow: and the ſame united and joined together by certaine ſutures or ſeames endented and toothed on either ſides, which run one into another. The ruptures and crackes of the braine-pan cannot be conſolidated and ſaudred perfectly againe: But if the ſpils and peeces be gently taken forth, and but ſmall, there is no daunger of death: for in their place there will grow a certaine callous cicatrice, or fleſhie ſubſtance, that will ſupplie in ſome ſort that defect. Beares of all others have the tendereſt skuls; and Parrots, the hardeſt; as we have ſaid before in place convenient.

Braines. Moreover, all living creatures which have bloud, have likewiſe brains: yea, and thoſe in the ſea which we call Soft-fiſhes, although they have no bloud at all, as namely, the Pour-cuttles or Polypes. But man, for his bigneſſe and proportion, hath the moſt braine of all other: and the ſame is the moiſteſt and coldeſt part that he hath within his bodie. Enfolded it is within two tunicles or kels, both above and beneath: whereof, if the one bee peirced and wounded, [to wit, *Pia mater*] there is no way but preſent death. Alſo, men commonly have more braines than women. And both of them have neither bloud nor veines therein: as for that, which is in other creatures, it

wanteth

wanteth all kind of fat. The learned Anatomists, who have searched deepely into the nature of things, doe teach us a difference betweene the braine and marow of bones: for, brains in the boiling and seething, waxe hard. In the middest of the braine of all creatures there be certaine little *bones. Man alone in his infancie hath his braine to pant and beat: and fully settled it is not, nor confirmed, before that he begins to speake. Of all parts necessarie for life, it is placed highest, and next unto the cope of head and heaven both: without flesh, without bloud, without filth and ordure. And in truth, it is the fort and castle of all the sences: unto it all the veines from the heart doe tend: in it they all doe likewise end. It is the very highest keepe, watch-tower, and sentinell of the mind: it is the helme and rudder of intelligence and understanding. Moreover, in all creatures it lieth forward in the front of the head: and good reason, because all our sences bend that way just before our faces. From our braine comes sleepe, from thence proceedeth our naps, our nods, our reeling, and staggering. And looke what creature so ever wanteth braine, the same sleepeth not. Stags (by report) have within their heads twentie little wormes, to wit, in the concavitie under their tongue, and about that joincture where the head is graffed to the chin-bone.

*Officula, some read Oscula, holes.

Man alone hath not the power to shake his Eares. Of flaggie, long, and hanging eares, came the surnames first of the *Flacci* (families, and houses in Rome.) There is no one part of the bodie costeth our dames more than this, by reason of their precious stones and pendant pearles thereat. In the East countries, men also as well as women, thinke it a great grace and braverie to weare earings of gold. As touching their proportion, some creatures naturally have bigger or lesser than others. Deere onely, the fallow as well as the red, have them slit and as it were devided. In Rats and Mice they be hairie. To conclude, no creature hath ears but those that bring forth their young alive: and none of them are without, save onely Seales, Dolphins, Vipers, and such fishes as wee called Cartilagineous and gristly. And these all in stead of eares, have certaine holes or conduits, except the foresaid gristly fishes, and the Dolphins: and yet manifest it is, that they do heare well ynough. For delighted they be with musicke: and upon some great noise and suddain cracke they are astonished, and then easily taken. But marvell it is how they should heare as they doe: neither can I comprehend the reason and meanes thereof, no more than I am able to shew how they doe smell? for no Organes and Instruments have they thereof to be seene, & yet there is not an hound upon the land senteth better, nor hath a finer nose than they. Of all foules, the Like-owle and the Otus alone, have feathers like eares: the rest have only holes to heare by. And after the same manner skaled fishes and serpents. In Horses, Mules, and Asses, and all such as serve either packe or saddle, the eares are tokens of their courage more or lesse, and will shew what stomacke is within them. If they be tired and wearie, they hang downe flaggie: bee they afraid, you shall perceive them to wag too and fro: in heat of furie, they stand pricking up: in sicknesse they lie downe.

Eares.

Man only of all creatures hath a Face and Visage: the rest have either musles and snouts, or else bils and beakes.

Face or Visage.

Other creatures have Foreheads also as well as men: but in mans alone we may see and read sorrow and heavinesse, mirth and joy, clemencie and mildnesse, crueltie and severitie; and in one word, guesse by it, whether one be of a good nature or no?

Forehead.

In the ascent or rising of the forehead, man hath Eie-brows set, like unto the eaves of an house; which he can moove as hee list, either both at ones, or one after another: and in them is shewed part of the mind within. By them we denie, by them we graunt. These shew most of all others, pride and arrogancie. Well may it be that pride doth appeare and settle in some other part, yet here is the seat & place of residence. True it is, that in the heart it beginneth, but hither it mounteth and ascendeth, here it resteth and remaineth. No part can it find in the whole bodie more eminent and hautie, and withall more steepe than the browes, wherein it might rule and raigne alone without controulment.

Eie-browes.

Next under the browes is the Eie, the most precious member of the whole bodie, which by the use of light maketh difference betweene life and death. Yet hath not Nature given eies to all creatures: Oisters have none: and for some other shell-fishes, it is hard to say whether they have any or none. As for Scallops, if a man stir his fingers against them as they lie gaping open, they will shut, as if they saw. And the shell-fishes called Solenes, give backe if any edge-toole come neare unto them. Of foure-footed creatures, Moldwarpes see not at all: a certaine shew and forme

The Eie.

forme they have of eies to be ſeene, if a man take off the skin that lieth over the place. Moreover among foules of the air, thoſe of the Herons kind, which are called Leuci, for that they be white, want (by report) one eie. And for certaine, in caſe of Augurie, if theſe birds flie either into the South or North, it is holden for an excellent good preſage, for they aſſure men that perill is paſt and promiſe ſecuritie. *Nigidius* affirmeth, That neither Locuſts nor yet Graſhoppers have eies. As for Snailes and ſuch like, the two little hornes that they put forth, ſerve them in ſtead of eies, as they ſound or trie the way before them. The earth-mads and all the ſort of wormes and grubs, are without eies. Men alone of all living creatures have eies of divers colours, ſome of one, and ſome of another. For all other creatures of one and the ſame kind, are eied alike. Howbeit, ſome horſes there be that extraordinarily have *red eies. But in men it is hard to ſet downe the infinite varietie and difference in them: for ſome have great glaring eies: others againe as little and as pinking. Others alſo there be that have them of a moderate and reaſonable bigneſſe. Some be goggle-eied, as if they would ſtart out of their heads, and thoſe are ſuppoſed to be dim-ſighted: others be hollow eied, and they are thought to have the beſt and cleareſt ſight: like as they who for colour have Goats eien. Moreover, ye ſhall have ſome men, who can diſcerne a far off: others againe that ſee not but neere at hand. Many there are, whoſe eieſight dependeth of the Sunnes light: for let the day be overcaſt and cloudie, or the Sun gone downe, they ſee juſt nothing. And others contrariwiſe there be, that al the day time have but a bad ſight: yet in the night ſeaſon, they ſee better than any others. As concerning two bals or apples in one eie, as alſo who they be that can bewitch and hurt folke with their very eie, ſufficient hath been ſaid alreadie. *Gray eies commonly in the darke ſee more cleare than others. It is reported of *Tiberius Cæſar* the Emperour to have had this propertie by himſelfe, that if he were awakened in the night, for a while he could ſee every thing as well as in the cleare day light; but ſoone after, by little and little, the darkneſſe would overcaſt and ſhaddow all againe: a gift that no man in the world was ever knowne to have but himſelfe. *Auguſtus Cæſar* of famous memorie, had *red eies like to ſome horſes: and indeed wall-eied he was, for the white thereof was much bigger than in other men: which alſo was the cauſe, that if a man looked earneſtly upon him, and beheld them wiſtly (and a man could not anger him worſe) he would be diſpleaſed, & highly offended. *Claudius Cæſar* had a fleſhie ſubſtance about the corners of his eies, that tooke up a good part of the white, and many times they were very red and bloudſhotten. *C. Caligula* the Emperour, his eies were ever ſet in his head, and ſtiffe againe. *Nero* had a very ſhort ſight; for unleſſe he winked (as it were) and looked narrow with his eies, he could not well ſee ought, were it never ſo neare. Twentie couple of profeſſed maiſters of fence and ſword-plaiers there were in the fenſe-ſchoole, that *C. Caligula* the Emperour maintained: & among the reſt, two there were & no more, whom a man could not make to wink, or once to twinckle with their eies: preſent before them what weapon he would, or make offer to ſtrike, ſo ſteadie and firme were they: and therefore they evermore caried the prize, and were invincible. So hard a matter is it for a man to keepe his eies from twiring. And many men naturally cannot chuſe but be evermore winking and twinckling with their eies: but ſuch are holden for fearefull and timorous perſons. None have their eies all of one colour: for the ball or apple in the middeſt is ordinarily of another colour than the white about it. Neither in any one part of the bodie are more ſignes and tokens to be gathered of the affection and diſpoſition of the heart, than in the Eie: of man eſpecially above all other creatures. By it we may know whether one bee modeſt, ſtaied, ſober, gentle, mild, pittifull, or no. It ſheweth mallice, hatred, love, heavineſſe, ſorrow, and joy. In the caſt alſo of the Eie there is as much varietie: for ſome have a furious, cruell, terrible, fierce, ſterne, and firie looke: others ſhew gravitie and conſtancie in their Eie. Some have an overthwart regard with them, others looke askew and awrie. One while a man lookes atone-ſide, and hath a wanton ſheepes eie: another while he caſteth his eie downe, and lookes heavily: and when hee liſt againe, he can give one a pleaſant and merrie looke. In breefe, the Eies are the verie ſeat and habitation of the mind and affection. For one while they bee ardent and fierie: otherwhiles they bee bent and fixed upon a thing: one time they twincke, another time they winke cloſe and ſee nothing. From them proceed the teares of compaſſion: when we kiſſe the eie, wee thinke that wee touch the very heart and ſoule. From hence commeth our weeping: from hence guſh out thoſe ſtreames of water that drench and run downe the cheekes. But what might this water and humour bee, that in hearts greeſe iſſueth in ſuch plentie, and is ſo readie to flow? where may it lie at other times, when wee are in joy, in mirth, and repoſe? It

cannot

A cannot bee denied, That with the Soule we imagine, with the Mind we ſee, and the Eies as veſſels and inſtruments receiving from it that viſuall power and facultie, ſend it ſoon after abroad. Hereupon it commeth, that a deepe and intentive cogitation blindeth a man ſo, that hee ſeeth not; namely, when the ſight is retired farre inward. Thus it is, that in the Epilepſie or Falling-ſicknes, the eies are open and yet ſee nothing: for why? the mind within is darkened. Moreover, Hares have this qualitie, to ſleepe open eyed; and ſo doe many men beſides them: and this the Greeks doe expreſſe by the tearme κοιμᾶσθαι γρῖπον. Nature hath framed and compounded the Eie, of many thin membranes or skins. As for thoſe tunicles withoutforth, they are tough and hard * like horne, to withſtand the injuries of heat and cold: and thoſe ſhee hath ordained eftſoones to be cleanſed and purified with the moiſture of teares; to the end that they ſhould be ſlipperie and
B mooveable, for to turne quickly and to ſhift from all that may offend. As for the middle part and membrane of the Eie, ſhe hath ſet it in a ball, like a window made of tranſparent horne [or rather of a grape:] the little compaſſe whereof containeth all the ſight of the Eye, and ſuffereth it not to wander and roll here and there, but directeth it as it were within a certaine pipe or ſmall conduit: by which meanes alſo (to note by the way) the apple being gathered into ſo narrow a circle, doth eaſily avoid all inconveniences that are incident unto it, for to annoy the ſame. This ball and point of the ſight is compaſſed alſo round about with other circles of ſundry colours, black, blewiſh, tawnie, ruſſet, and red; to the end that by this medley and temperate mixture of colors environed with the white beſides, the light might be let in and repreſented to the Opticke-ſinew: and alſo by a temperate reverberation and beating backe from thoſe other colours, it ſhould not
C dazle or offend the apple with the exceeding brightneſſe therof. In ſumme, this mirror or glaſſe-window, is ſo perfect and ſo artificially contrived, that as little as the ball of the ſight is, a man may ſee himſelfe full and whole in it. And this is the cauſe that many foules, from a mans fiſt are readie to pecke at the eyes above all other parts, for that they would gladly ſort and draw unto their owne repreſentation and image, which they ſee in the eies, as unto that which they naturally affect. Certain ſumpter-horſes and mules, and ſuch like beaſts of carriage onely, are troubled with ſore eyes, and diſeaſed that way at every chaunge and encreaſe of the moon. But man alone, in the catarrhact and ſuffuſion of the Eie, by voiding from it a certain humor which troubled the ſight, doth recover and ſee againe. There have been many known blind twentie years and more, and yet afterwards enjoyed the benefit of their eies. Some have been borne blind, without any
D fault or defect of their eies. Divers men likewiſe have ſodainly loſt their ſight by ſome ſecret accident, and no outward offence knowne to give occaſion thereof. Many right skilfull maſters in Chirurgerie, and the beſt learned Anatomiſts, are of opinion, That the veines of the eies reach to the braine. For mine owne part, I would rather thinke, that they paſſe into the ſtomacke. This is certain, I never knew a mans Eie pluckt out of his head, but he fell to vomiting upon it, & the ſtomack caſt up all within it. We that be citizens of Rome, have a ſacred and ſolemne manner and uſe among us, To cloſe up their Eies that lie a dying, and are giving up the ghoſt; and when they be brought to the funerall fire, to open them againe. The reaſon of this ceremonious cuſtome, is grounded hereupon, That as it is not meet for men alive to have the laſt view of a mans
E Eie in his death, ſo it is as great an offence to hide them from heaven, unto which this honour is due, & the body now preſented. Man alone is ſubject to the diſtortion & depraved motion of his Eies. Hereof are come the ſurnames of certaine families in Rome, *Strabones* and *Pæti*: for that the firſt of thoſe houſes were ſquint-eyed, and had rolling eies. Thoſe that were borne blinke but with one eye, our countrymen called *Coclites*: as alſo them that were pinke-eied and had verie ſmall eies, they tearmed *Ocellæ*. As for ſuch as came by thoſe infirmities by ſome injurie or miſchaunce, they were ſurnamed *Lucini*. Moreover, we ſee that thoſe creatures which ordinarily do ſee by night (as Cats doe) have ſuch ardent and fierie eyes, that a man cannot endure to looke full upon them. The eyes alſo of the Roe-bucke and the Wolfe are ſo bright, that they ſhine againe, and caſt a light from them. The Sea-calves or Seales, and the Hyenes, alter eftſoons their eies into a thouſand colours. Over and beſides, the eies of many fiſhes doe glitter in the night,
F when they be drie: like as the putrified and rotten wood of ſome old trunke of an oke or other wood. We have ſaid before, that thoſe winke not nor ſhut their eie-lids, who cannot roll their eies atone-ſide, but are faine to turne their whole head withall when they would ſee a thing that is not juſt before them. The Chamæleons (by report) roll their eies all whole every way as they liſt, up and downe, too and fro. Crabs looke awrie. And yet ſuch fiſhes as are encloſed within a brittle

* κεράτειδες.

brittle and tender ſhell, have their eies inflexible and ſtiffe. Lobſters and Shrimpes for the moſt part, have their eyes ſtanding out verie hard, albeit they be covered with the like ſhells. Thoſe that have hard eies, are not ſo well ſighted as thoſe that have moiſt. It is commonly ſaid, that if a man plucke the eies out of the heads of young ſerpents, or young Swallowes, they will have new againe in their place. All Inſects and other creatures that lie within hard ſhells, ſtirre their eies as four-footed beaſts doe their eares: but in thoſe that have tender ſhells, their eies be hard. And all ſuch, as alſo fiſhes and Inſects, have no lids to their eies, and therefore cover them not. But there be none without a thin membrane or pellicle over them, which is cleare and tranſparent like glaſſe.

Eye-lids. Men and women have haire growing on the brims of both Eie-lids: but women doe colour them every day with an ordinarie painting that they have: ſo curious are our dames and would ſo faine be faire and beautifull, that forſooth they muſt die their eies alſo. Nature ywis gave them theſe hairy eielids for another end, namely, for a palaiſade as it were and rampier of defence for the ſight, yea and to ſtand out like a bulwarke for to keepe off and put by all little creatures that might come againſt the eyes, or what things ſoever els ſhould chaunce to fall into them. Some write, That the haire of the eielids will ſhed and fall away, but not without ſome great injurie, and namely, in ſuch perſons as be overmuch given to leacherie. No other living creatures have theſe haires, but ſuch as otherwiſe be clad all over their bodies with haire or feathers. But, as foure-footed beaſts have them in the upper lid onely, ſo foules have none but in the nether: like as thoſe ſerpents which are tender skinned and are foure-footed, as Lizards. The Oſtrich is the only foule which hath haire on the upper eye-lid. The Ape hath on them both as well as man. Moreover, all foules have not eie-lids, and therefore ſuch doe not winke, namely, thoſe that bring forth living creatures. The greater and heavier foules, when they would cloſe their eies, do it with drawing up the nether lid. The ſame alſo twinkle by means of a pellicle or skin comming from the corners of their eies. Doves and ſuch like birds winke with both eie-lids: but fourefooted beaſts that lay egs, as Tortoiſes and Crocodiles, uſe the nether lid onely, without any twinkling at all, becauſe their eies be very hard. The utmoſt compaſſe or edge of haire in the upper lid, the Latines called in old time *Cilium*, and thereof came the name of the browes, to be *Supercilium* in Latine. This brim of the eie-lid, if it be divided by any wound, cannot be drawne together againe: like as ſome few parts beſides of mans bodie.

Bals of Cheeks Vnder the eies, are the balls of the Cheeks, which men and women only have; which in old time they called *Genæ* in Latin. And by the law of the twelve Tables, women were expreſſely forbidden not to teare, rent, or ſcratch them in any caſe with their nailes. This is the ſeat of baſhfulneſſe and modeſtie: heare appeareth moſt of all the redneſſe of bluſhing. Vnder them, are the hollow pits of the cheekes, wherein mirth and laughter doe lodge and inhabit.

Noſe-thrils. Man only hath his Noſe ſtanding forth aloft, which now adaies they dedicate to flie ſcoffing and deriſion, inſomuch as they attribute that tearme to dry mockers and flowters. And verily there is not a creature beſides, that hath his noſthrils ſo bearing out. [As for birds, ſerpents, and fiſhes, they have holes only to ſmell at, without any other noſtrils to be ſeen.] And hereof come the ſurnames of *Simones* and *Silones*, whereof the former have flat noſes, the other are hooked and camoiſe noſed upward. Infants have been known many times when they are ſeven moneths old, to want the holes and paſſages both of noſe and eares.

Lips. Then follow the Lips: ſome men there be that put them far out, by reaſon that they are gag-toothed or tut-mouthed, and thoſe are called *Brocci*. Others againe who are blabber-lipped, are named in Latine *Labeones*.

Mouth. As for the Mouth, all creatures have it that bring forth their young alive: and either it is gentle and pliable, or els hard and unruly; as we ſee horſes, that either willingly receive, or elſe refuſe the bit. By which alſo we give to men, the tearme either of modeſt and good countenance, or els of ſhameleſſe and untoward. But inſtead of mouth and lips both, Nature hath given to all foules

Bills. ſharpe bills of an hornie ſubſtance: and as many of them as live upon ravin and prey, have them hooked inward: but ſuch as gather and pecke onely, they have ſtraight beakes. As for thoſe that either graſe, root, or pudder in mud, like to ſwine, they are broad and flat billed. As for horſes, mules, and ſuch like, they uſe their mouthes in ſtead of hands, to gather in their food as they either feed in paſture, or be at racke and manger. And the wider mouthes have they that live of killing and devouring other beaſts.

No

No creatures living, but man and woman, have Chins and Iawes. The river Crocodile alone mooveth the upper chaw: the land Crocodiles chew as other creatures doe, but only bias. *Chin & Iaw.*

Of Teeth, there be three ſorts: for either they be framed like ſawes, or elſe ſet flat, even, and levell: or laſt of all, ſtand gabbing out of the mouth. The ſaw teeth run one betweene another, as if two combs grew togither, becauſe they ſhould not weare if they met one with another, as we ſee in ſerpents, fiſhes, and dogs. Horſes and men have their teeth of one even levell. The Bore, the water-Horſe, and the Elephants, have their tuskes and fangs ſticking forth. Of thoſe teeth which are ſmooth and meet juſt one againſt another; ſuch as divide and cut the meat, bee broad edged, as the fore-teeth: thoſe that grind and chew, be double, and ſtand within the chaw: but ſuch as ſever and part the meat in the mouth, be ſharpe pointed: and we call them our eie-teeth; the Latines, *Caninos*, or Dog-teeth. And theſe are they, that of ſaw-teeth be the longeſt. Even and levell-raunged teeth, be either in both chawes alike, as in an horſe; or els they be wanting before in the upper chaw, as in Kine, Buls, Oxen, Sheep, and all ſuch as chew cud. Goats have none above but the two foreteeth. None have gabbed tusks ſtanding forth of the mouth, whoſe teeth are faſhioned like a ſaw. The females of them that have thoſe fangs and tuskes, if haply they have the like (for ſeldome they are ſeene with ſuch) make no offenſive uſe of them at all: for whereas the Bores doe ſtrike with them, the Sowes only doe but bite. No horned beaſt hath ſuch tuskes: But all thoſe have hollow teeth, whereas in all the reſt, they be ſound and ſolid. All fiſhes be toothed like ſawes, ſave only the Guilt-head Scarus; for this only of all creatures living within the water, hath an even courſe of teeth. Furthermore, many fiſhes bee found to have their mouth, yea and their tongue, covered and beſet all over with teeth: to the end, that by the meanes of many wounds (as it were) they might make ſoft their meat, which otherwiſe they could not poſſibly chew and teare. In many the teeth ſtand in the pallat and rouſe of their mouth, yea and in their very taile. Moreover, ſome there be that have them crooking inwardly to the mouth, that the meat might not fall out againe: as having no other meanes to hold it in. Alſo, the Aſpides and Serpents are likewiſe toothed, but they have above, both on the right ſide and the left, two teeth that be very long, and thoſe are hollowed within after the manner of ſmall pipes, like to the ſtings of Scorpions, by which they diſcharge their poiſon. The beſt writers who have ſearched moſt curiouſly into the ſecrets of Nature, doe hold, That the venome of Serpents is nought elſe but their gall; and that by certaine veines under their ridge bone, the ſame paſſeth along to the mouth. Some ſay, that a Serpent hath but one venomous tooth; which becauſe it is crooked, therefore he turneth and bendeth it upright when he would ſting or bite withall. Others affirme, that at ſuch a time the ſame falleth out, and a new commeth up againe and groweth in the place: for eaſie it is to be driven or ſhaken out: and we ſee ſome of them handled and carried in mens boſoms, without that tooth. It is ſaid moreover, that the Scorpions have the like tooth in their taile, and moſt of them three togither. Vipers teeth are covered and lie hidden within their gumbs. This ſerpent being full of poiſon, redoubleth her pricke, and at every bit letteth in poiſon into the wound. No flying foule hath teeth, ſave onely the Bat or winged mouſe. Of all creatures which beare no hornes, the Camell onely hath no foreteeth in the upper chaw. Such as be horned, have no ſaw-teeth. Snailes likewiſe have teeth: witneſſe the leaves and tendrils of vines, which the very leaſt of them all do gnaw and eat away. But for Sea-fiſhes, That thoſe which live in ſhells, or be griſtly, ſhould have their foreteeth; and namely, that the ſea-Vrchins five apeece; I cannot but wonder how men could come by the knowledge. Inſects, in ſtead of teeth, have a ſharpe prick to ſting withall. Apes have teeth even as men. An Elephant hath foure teeth within to chew with, (beſides thoſe that ſtand out) which in the males turne and bend upward, but in the female they are ſtreight, and ſhut directly downward. The fiſh alſo called Muſculus Marinus, which goeth before the Whale or Whirlepoole as his guide, hath no teeth at all; but in ſtead thereof, his mouth all within, his tongue alſo and pallat, is rough againe with certaine briſtles. The leſſe foure-footed land-beaſts, have the two fore-teeth of either ſide, longer than the reſt. As for all other creatures, they bring their teeth with them into the world: man only is born without them, & at the ſeventh moneth they commonly breed. In all other creatures they continue ſtill and ſtick faſt; except men, Lions, Horſes, Mules, Aſſes, Dogs, and ſuch as chew cud, for theſe chaunge their teeth: but Lions and Dogs caſt onely the eie-teeth, called *Canini* in Latine. The eie-tooth of a Wolfe (ſo it grow on the right ſide of the head) is thought to doe ſtraunge matters. The great grinders which ſtand beyond the eye-teeth, in no creature whatſoever do fall *Teeth.*

out of themselves. As for the farthest cheek-teeth in a mans head, which be called *Genuini*, [*i.* the Wit-teeth] they come about the time that hee is twentie yeeres old; and in many at fourescore yeeres of age. Sure it is, that those teeth fall from women in their old age, and soone after come againe: such women I meane, as had no children in their youth. And *Mutianus* hath reported, That he saw one *Zancles* a citizen of Samothrace, who had new teeth comming up after he was an hundred yeeres old and foure. Moreover, males ordinarily have more teeth than the females: as we may see in mankind, Sheepe, Goats, and Swine. *Timarchus* the sonne of *Niceeles* the Paphian, had a double course of teeth in either jaw. He had a brother also who never cast his fore-teeth, and therefore he wore them before, to the very stumps. Wee read in Chronicles of one man that had a tooth growing out of the very pallat of his mouth. As for the eye-teeth, if they be lost by any mischaunce, there never grow againe any other for them. In Horses onely, of all other creatures, teeth waxe whiter by age: for in the rest, they turne to be browne and reddish. The age of Horses, Asses, and Mules, is known by a marke in the teeth: a horse hath in all, fortie. At the end of thirtie moneths, he looseth his fore-teeth of either chaw, as well above as beneath: the yeere following as many, even those that be next, namely at what time as they put out those which be called the cheeke-teeth. At the beginning of the fifth yeere, he looseth other two, but there come up new in the place in the sixth yeare. By the seventh yeare he hath all, as well those that should come in others place, as those which are firme and never chaunge. A guelding never casts his teeth, no not his sucking teeth, in case he were guelded before. Asses in like manner begin to shed their teeth at the thirtieth moneth of their age; and so forward from sixe moneths to sixe moneths: and if they fole not before they have shed their last teeth, they are for certein to be held barren. Kine and Oxen, when they be two yeares old, doe chaunge their teeth. Hogs or swine never have any teeth to fall. Now when as these markes are gone out, which shew the age of Horses, Asses, and such like, ye must (to know their age) goe by the overgrowth and standing out of the teeth, the greynesse of the haire over their browes, and the hollow pits therabout: for then are they supposed to be sixteen yeares of age. As touching men, some are thought to have venome and poison in their teeth: insomuch as if they be shewed bare and naked against a cleare mirror or looking-glasse, they will dim the beautie thereof, yea and kill young pigeons whiles they be calow and unplumed. But forasmuch as wee have spoken sufficiently of Teeth, in our treatise as touching the generation of Man, we will passe over the rest, and proceed unto other parts; save only that this is to be observed and noted, How children be sicke when they are about breeding of teeth. And to conclude, of all other creatures, those are most dangerous with their teeth, which have them framed like sawes, and closing one betweene another.

The Tongue. Now as concerning Tongues, we observe much diversitie in them: for all creatures are not tongued alike. First and formost, Serpents have very thin tongues, and the same three-forked, blacke of colour, shaking, and readie to pierce; and if a man take them forth, very long. Lizards have tongues two-forked and full of haires: so have the Seales or Sea-calves a double tongue: but the tongues of these beforenamed, are as small as haires: as for the rest, their tongues serve them to licke their mussles and lips all about. Fishes have their tongues for the greater part therof, cleaving fast to their pallat; and in Crocodiles they are so, cleane throughout. But as well fishes as other creatures of the water, have a fleshie palat, which serveth them in stead of a tongue to taste withall. Lions, Libards, and all of that sort, yea and Cats, have their tongues rough and uneven, made like a file with many small edges lapping one over another: in such sort, as that with licking it will weare the skin of a man so thin, that their spittle and moisture when it commeth neate unto the bloud and the quicke, will drive oftentimes into rage and madnesse, those whome they so licke, yea although otherwise they be made tame and gentle to come to hand. As touching the tongues of Purple fishes, wee have written alreadie. Frogs have their tongues in the forepart fast to the mouth: the hinder part within toward their throat, is free and at libertie, wherby they keep that croking which we hear at one season of the year; namely, when the males call unto the females for to engender; and then they be named Olalygones: for at that time they let downe their nether lip somwhat under the water, that they gargle with their tongue levell to the water, which they received into their throat: and so while their tongue quavereth withall, they make that croking noise abovesaid. He that would looke then advisedly upon them, should see their specks so swolne and stretched out full, that they will shine againe: hee should perceive their eyes ardent and fiery with paines that they take thus with the water. Those creatures that

have pricks and ſtings in their hin-parts, are furniſhed alſo with tongue and teeth. As for Bees, their tongue is very long; and the Graſhoppers put it forth a good way. They that have a fiſtulous ſting or pricke in their mouth, are provided neither of teeth nor tongue. In ſome Inſects, (as namely Piſmires) the tongue lieth cloſe within. Elephants, above all other beaſts, have a large and broad tongue. All creatures have their tongue looſe and at libertie at all times, each one in their kind: man only is oftentimes ſo tongue-tied, that needfull it is to cut certain ſtrings and veines for to eaſe it. *Metellus* the high prieſt and chiefe ſacrificer at Rome, had ſuch a ſtutting and ſtammering tongue (by report) that againſt he ſhould dedicate the temple of the goddeſſe *Opifera*, he laboured ſo with his tongue for utterance, for certaine moneths togither, and tooke ſuch paines, as if he had been upon the racke. All children, by that time that they be ſeven yeeres old at the fartheſt, ſpeake readily, ſo as they be not by ſome unnaturall cauſe empeached. But ſome men there be, which have their tongues ſo at commaundement, and ſo artificially they can handle it and their throat togither, that they are able to counterfeit the finging of all birds, and the voice of any other creature, that one cannot know and diſcerne them aſunder. As touching Taſt, which is the judgement of meats and drinks, to wit, What ſmacke and tallage they have? all other living creatures find it at the tip of their tongue only: but man taſteth as well with the pallat or roufe of his mouth. The ſpongeous kernels, which in men be called Tonſillæ, or the Almands, are in Swine named the Glandules. That which betweene them hangeth downe from the innoſt part and roufe of the mouth, by the name of the Vvula, is to be found in man onely.

Vnder it, there is a little tongue (which the Greekes call Epigloſſis) at the root of the other: and the ſame is not to be found in any creature that laieth egs. A twofold uſe it hath, lying as it doth betweene the two pipes. Whereof, that which beareth more outward, and is called The rough Arterie, or the Windpipe, reacheth unto the lungs and heart. And as a man doth eat and ſwallow downe his meat, this foreſaid little flap doth cover it, for feare leaſt as the ſpirit, breath, and voice paſſeth that way, the meat or drinke (if it ſhould goe wrong to the other conduit or paſſage) might endaunger a man and put him to great trouble. The other is more inward, called properly the Gullet, or the Wezand, by which we ſwallow downe both meat and drinke, and it goeth to the ſtomacke firſt, and ſo to the belly. This alſo the ſaid flap doth cover by turns, to wit, as a man doth either ſpeake or draw his breath, leaſt that which is alreadie paſſed into the ſtomacke, ſhould come up againe, or be caſt up unſeaſonably, and thereby empeach a man in his ſpeech. The Windpipe, conſiſteth of a griſtlie and fleſhie tunicle: the Wezand, of a membranous or ſinewie ſubſtance and fleſh togither.

The flap Epigloſsis.

The Windpipe, and Wezand pipe.

There is no creature having a Necke indeed, but it hath alſo both theſe pipes. Well may they have a gorge or throat, in whome there is found but the gullet onely: but nape of necke behind, they can have none. As for thoſe upon whome Nature hath beſtowed a neck, they may with eaſe turne their head about too and fro every way, to looke about them, becauſe it is compoſed of many ſpondyles, or turning round bones, tied and faſtned one unto another by joints and knots. The Lion onely, togither with the Woolfe, and the Hyæna, have this neck bone of one entire and ſtraight peece, and therefore ſtiffe that it cannot turne. Otherwiſe it is annexed to the chine, and the chine to the loines.

The Necke.

This Chine likewiſe is a bonie ſubſtance, but made round and long, and fiſtulous within, to give paſſage to the marow of the backe, which deſcendeth from the braine. Learned men are of opinion, That this marow is of the ſame nature that the brain is: and they ground upon this experience, That if the thin and tender skinne that encloſeth it, be cut through, a man cannot poſſibly live, but dieth immediatly. All creatures that be long legged, have likewiſe in proportion as long neckes. So have alſo water-foules, although their legges be but ſhort. But contrariwiſe, yee ſhall not ſee any birds with long neckes, that have hooked tallons. Men onely and Swine, are troubled with the ſwelling bunch in their throats: which many times is occaſioned by corrupt water that they drinke. The upper part or top of the wezand, is called the Gorge, or the Gullet: the nether part or the extremitie thereof, is the Stomacke. There is another fleſhie concavitie of this name, under the windpipe, annexed to the chine-bone: long it is and wide, made in faſhion of a bottle, flagon, or rather a gourd. Thoſe that have no gullet, are alſo without a ſtomacke, a necke, and a wezand; as fiſhes: for their mouthes and bellies meet. The ſea-Tortoiſe hath neither tongue nor teeth: with the edge of his muſſle (ſo ſharpe it is) hee is able wellenough to chew all his victuals.

The Chine-bone.

The Stomack. Vnder the Arterie or Wind-pipe, is the mouth of the Stomacke; of a callous or griſtly ſubſtance, thicke toothed, with prickles in manner of a bramble, for the better diſpatching of the meat: and theſe notches or plaits grow ſmaller and ſmaller, as they approch nearer to the bellie: ſo as the utmoſt roughneſſe thereof in the end is like unto a ſmiths file.

The Heart. Now are we come to the Heart, which in all other living creatures is ſituate in the very middeſt of the breaſt: in man onely it lieth beneath the left pap, made in manner of a Peare, and with the pointed and ſmaller end beareth out forward. Fiſhes alone have it lying with the point upward, to the mouth. It is generally received and held, that it is the firſt principall part which is formed in the mothers wombe: next unto it the braine, and the eies laſt of all. And as theſe bee the firſt that die, ſo the Heart is laſt. In it (no doubt) is the moſt plentie of heat, which is the cauſe of life. Surely it ever moveth and panteth, like as it were another living creature by it ſelfe. Covered it is within forth with a very ſoft, yet a ſtrong tunicle, that enwrappeth it: defended it is beſides with a ſtrong mure of ribs, and the breaſt bone together: as being it ſelfe the principall fortreſſe and caſtle, which giveth life to all the reſt. It containeth within it certain ventricles and hollow receits, as the cheefe lodgings of the life, and bloud, which is the treaſure of life. Theſe in greater beaſts are three in number: and none there is without twaine. This is the very ſeat of the mind & ſoule. From this fountaine there doe iſſue two great veſſels, Maiſter-veines, or Arteries, which are divided into branches: and being ſpread as well to the fore-part as the backe parts of the bodie, into ſmaller veines, doe miniſter vitall bloud to all the members of the bodie. This is the only principall part of the bodie that cannot abide to be ſick, or languiſh with any infirmitie: this lingereth not in continuall paine: no ſooner is it offended, but death enſueth preſently. When all other parts are corrupt and dead, the Heart alone continueth alive. All living creatures that have an hard and ſtiffe Heart, are ſuppoſed to be brutiſh: thoſe that have ſmall Hearts, be taken for hardie and valiant: contrariwiſe, they are reputed for timorous and fearfull, which have great Hearts. And the biggeſt Heart, in proportion of the bodie, have Mice, Hares, Aſſes, Deere, Panthers, Weaſels, Hyænes; and in one word, all creatures either by nature fearefull, or upon feare hurtfull. In Paphlagonia, Partridges have two Hearts. In the Hearts of Horſes, Kine, Buls, and Oxen, are otherwhiles bones found. The Heart in a man groweth yearely two drams in weight, untill he be fiftie yeares of age: and from that time forward it decreaſeth from yeare to year as much: wherupon he is not able to live above one hundred yeares, for want of Heart: as the Ægyptians be of opinion; whoſe manner is to preſerve the dead bodies of men ſpiced and embaulmed. It is reported of ſome men, that they have Hearts all hairie: & thoſe are held to be exceeding ſtrong and valorous. Such was *Ariſtomenes* the Meſſenian, who ſlew with his owne hands *300 Lacedæmonians. Himſelfe being ſore wounded and taken priſoner, ſaved his owne life once, and made an eſcape out of the cave of a ſtone quarrie, where he was kept as in a priſon: for he gat forth by narrow Foxe holes under the ground. Being caught a ſecond time, whiles his keepers were faſt aſleepe, he rolled himſelfe to the fire, bound as he was, and ſo without regard of his owne bodie, burnt in ſunder the bonds wherewith he was tied. And at the third taking, the Lacedæmonians cauſed his breaſt to be cut and opened, becauſe they would ſee what kind of Heart he had: and there they found it all overgrowne with haire. Moreover, this is obſerved in peruſing the inwards of beaſts, That when they be well liking, and do preſage good, the Heart hath a kind of fat in the utmoſt tip thereof: Howbeit, this would be noted, That according to the Soothſaiers learning, their Heart is not alwaies taken for a part of the bowels or entrailes. For after the 123 Olympias, when *Pyrrhus* king of Epyrus was departed out of Italie, what time as *L. Poſthumius Albinus* was king ſacrificer at Rome, the Soothſaiers and Wiſards began firſt to looke into the Heart, among other inwards. That very day when as *Cæſar* Dictatour went firſt abroad in his roiall purple robe, and tooke his ſeat in the golden chaire of eſtate, he killed two beaſts for ſacrifice, and in both of them the entrailes were found without any Heart: whereupon aroſe a great queſtion and controverſie among the Augures and Soothſaiers, How it could be, that any beaſt ordained for ſacrifice ſhould live without that principall part of life? or whether poſſibly it might looſe it for that preſent onely? Over and beſides, it is held for certaine, that if any die of the trembling and ach of the Heart, or otherwiſe of poyſon, their Heart will not burne in the fire. And verily, an Oration there is extant of *Vitellius*, wherein he challengeth *Piſo*, and chargeth him directly with poyſoning of *Germanicus Cæſar*, upon this preſumption: for he openly proteſted and prooved, That the heart of *Germanicus* would not conſume in the funerall fire, by reaſon of poyſon. But contrariwiſe,

*In three ſundrie battailes.

riwiſe, *Piſo* alledged in his owne defence the foreſaid diſeaſe of the Heart called Cardiaca, whereof as he ſaid, *Germanicus* died.

Vnder the Heart lie the Lights, which is the very ſeat of breathing: whereby we draw and deliver out wind. For which purpoſe, ſpongeous it is and full of hollow pipes within. Few fiſhes as we ſaid before, have any Lungs: other creatures alſo that lay egges, have but ſmall, and the ſame full of froth, and without bloud: whereupon they be not thirſtie at all: which is the cauſe likewiſe that Seales and Frogs can dive ſo long under the water. The Tortoiſe alſo, albeit hee have verie large Lungs, and the ſame under his ſhell, yet there is no bloud therin. And verily, the leſſer that the Lungs be, the ſwifter is the bodie that hath them. The Chamæleons Lights be very big, for the proportion of his bodie, for little or nothing els hath he within it. *The Lights or Lungs.*

Next followeth the Liver, which lieth on the right ſide. In that which is called the head of the Liver, much varietie and difference there is. For a little before the death of *Marcellus*, (who was ſlaine by *Annibal*) as he ſacrificed, there was found a Liver in the beaſt, without that head or fibres aforeſaid. And the next day after, when he killed another for ſacrifice, it was ſeen with twain. When *C. Marius* ſacrificed at Vtica, the ſame was likewiſe wanting in the beaſt, being opened. Semblably, when prince *C. Caligula* the Emperour ſacrificed upon the firſt day of Ianuarie, at his entrance into the Conſulſhip, the Liver head was miſſing: but ſee what followed! in that yeare his hap was to be ſlaine. Moreover, his ſucceſſor *Claudius*, within a month before he died by poyſon, met with the like accident in his ſacrifice. But *Auguſtus Cæſar*, late Emperour of famous memorie, as he killed beaſts for ſacrifice, the very firſt day that he entred upon his imperiall dignitie, found in ſixe of them ſixe Livers, which were all redoubled and folded inward, from the nethermoſt lobe or skirt beneath: whereupon anſwere was made by the Soothſaiers, that within one yeare he ſhould double his power and authoritie. The foreſaid head of the Liver, if it chance to be ſlit or cut, preſageth ſome evill hap, unleſſe it be in caſe of feare and penſiveneſſe: for then it betokeneth good iſſue, and an end of care and ſorrow. About the mountaine Briletum and Tharne; alſo in Cherſoneſus neare unto Propontis, all the Hares ordinarily have two Livers: and (a wonderous thing it is to tell) if they bee brought into other countries, one of the ſaid Livers they looſe. *The Liver.*

Faſt to the Liver hangeth the Gall; yet all creatures have it not. And about Chalcis in Eubœa, the ſheepe are quite without Gall. But in Naxus they all have two Gals, and the ſame very big. The ſtrangers that come into both thoſe parts, think the one as prodigious and monſtrous as the other. Horſes, Mules, Aſſes, Deere both red and fallow, Roe-buckes, Swine, Cammels, and Dolphins, have no Gall. Some Mice and Rats there bee which have it. And few men there are without, howbeit, ſuch are of a ſtronger conſtitution, more healthfull, and longer lived. Howbeit ſome are of opinion, That all Horſes have Gall, not annexed to their Liver, but within their bellie: and as for the Deere aboveſaid, it lieth (as they thinke) either in their taile, or elſe their guts: which (by their ſaying) are ſo bitter, that Hounds and Dogs by their good wils would not touch them. Now this Gall is nothing els but an excrement purged from the worſt bloud: and therfore bloud is taken to be the matter thereof. Certaine this is, that no creatures have Livers, but ſuch as likewiſe have bloud. And in truth, the Liver receiveth bloud from the Heart, unto which it is adjoined, and ſo conveigheth and deſtributeth it into the veines. Blacke choller lying in the Liver cauſeth furie and madneſſe in man: but if it be all caſt up by vomit, it is preſent death. Hereupon it commeth, that we tearme furious and raging perſons by the name of chollericke, or full of Gall: ſo great is the venome of this one part, if it reach once to the ſeat of the mind, and poſſeſſe it. Nay more than that: if it be ſpread and diſperſed over all parts of the bodie, it infecteth it with the yellow jaundiſe, yea, and coloureth the very eies, as it were with Saffron. Let it out of the bladder or bag wherein it is, ye ſhall ſee it ſtain veſſels of Braſſe, yea, they will become blacke againe, and looſe their brightneſſe if they be touched therewith. No marvell then if the venome and poyſon of Serpents, proceed from the Gall: They that uſe to feed of worme-wood growing in Pontus, commonly have no Gall. Ravens, Quailes, and Feaſants, have their Gall joining to their kidneies, or rather to their guts, of one ſide and no more: and ſome to the guts only, as Pigeons, Hawkes, and Lampreies. Few birds there be that have Gall in the Liver. As for Serpents and Fiſhes, they have the greateſt Gals of all others, for the proportion of their bodies. Moſt of them have their Gall along their guts throughout, in manner of the Hawke and the Kite. Moreover, in all Whale-fiſhes their Gall is faſtened to the Liver: and ſo wee ſee it lieth in the Seales, *The Gall.*

whoſe Gall is ſingular good for many purpoſes. Oxe Gall in limming giveth a golden colour: The Soothſaiers have dedicated it to *Neptune*, & the mightie power of Water. *Auguſtus* the emperour found two Gals in a beaſt that he killed for ſacrifice, upon that very day whereon hee obtained that famous victorie at Actium. Some ſay, that the lobes or fibres in the ſmall Livers of certaine Mice and Rats, are commonly found to be as many as the Moone is daies old in every month: and looke how many daies you reckon of her light, ſo many may you count the fibres aforeſaid. Alſo, that their liver groweth at midwinter, when daies be at ſhorteſt. In the kingdomes of Grenada and Andaluſia in Spaine, Connies are many times found with double Livers. The land Frogs of Toads kind, have one lop or lappet of the Liver, which Ants will not touch; becauſe of the poyſon therein, as is ſuppoſed. Liver of all things may be kept and preſerved longeſt: and we read in Chronicles, that there have been found in ſome cities long beſieged, Livers in ſalt or powder, which had continued a hundred years. Serpents and Lizards have long Livers. In that ſacrifice which *Cæſina Volaterranus* killed, Dragons were ſeene to iſſue from among the Entrailes and the Liver; and this turned to be a luckie preſage. And verily, why ſhould we thinke this report or any other in ſacrifices, to be incredible? conſidering, that upon the very day that king *Pyrrhus* was ſlaine, the heads of the beaſts being ſlaine for ſacrifice, (notwithſtanding they were cut off from the bodies,) mooved forward upon the ground, and licked up their owne bloud.

The Midriffe. The upmoſt inwards of a man, to wit, the Heart and the Lungs, are devided from the other entrailes beneath, by certaine pellicles or rimmes of the Midriffe, which the Latines call Præcordia (becauſe they are drawne and ſet before the Heart as a defence:) and the Greekes Phrenes. True it is, that Nature in great providence hath encloſed all the noble and principall parts within ſeverall skins and coats of their owne, which might ſerve in ſtead of ſheaths and caſes for their better defence: but in this partition of the Midriffe, ſhe had a more particular regard to the propinquitie of the Stomacke and Bellie, leaſt that the vitall parts being ſo neare, ſhould be oppreſſed and ſuffocated with the ſteames and vapors of the meat therein boiling. To this part are we beholden for our quicke wit, this membrane of the Midriffe we may thank for our readie conceit and underſtanding: to which effect, charged it is with no fleſh, but compoſed of fine & ſubtile ſinewes. The ſame likewiſe is the very eſpeciall ſeat of mirth: as we may perceive evidently by tickling under our arme holes, unto which it reacheth: and as in no place of mans bodie the skin is more fine and tender, ſo it taketh as great pleaſure to be tickled & lightly ſcratched there. And hereupon it is, that in ſolemne combates of ſword-fencers at utterance with the ſharpe, as alſo in field battels, we have many a time ſeene men wounded and thruſt through the Midriffe, to die laughing.

The Bellie or Paunch, with the Guts.
**Ariſtotle* ſaith foure-fold.

To proceed in our Anatomie, all creatures having a Stomack or Read, are not without a Bellie under it. As many as chew cud, have the ſame *double or two-fold, the reſt one and no more: and looke who want bloud, are without it alſo. For ſome there be that have one entire gut, which beginneth at the mouth, and by a certaine way redoubleth and returneth backe againe thither, and namely, the Cuttill and the Polype. In man it is annexed to the bottome of the Stomacke, like as in a Dog. And in theſe twaine onely, narrower it is in the lower part: which is the cauſe, that none but they doe vomite: for when their bellies bee full, the ſtreight paſſage beneath keepeth the meat from deſcending, and ſo it returneth upward: which cannot happen to them that have it wide and large, whereby the meat is ſooner ſent downe into the guts beneath. Next to the bag of the Stomacke, men and ſheepe have the ſmall guts called Lactes, through which the meat paſſeth: in others it is named Ile. Next unto which are the greater guts, that reach into the Paunch: and in man they are full of windings and turnings: which is the reaſon, that as many as have a great ſpace betweene the Stomacke and the Paunch, are more hungrie and greedie of meat than others. And thoſe who have the fatteſt and moſt greaſieſt bellies, moſt commonly are the groſſeſt of capacitie and underſtanding. Some foules likewiſe have a two-fold receptacle for their meat: the one is the gizzer, craw, or gorge, wherein they beſtow at the firſt their meat when they take it new: the other is the true Stomacke indeed; into which they ſend out of the former, the victuals alreadie altered, prepared, and in good forwardnes of concoction. And ſuch be Hens and Pullein, Coiſts or Stock-doves, Houſe-doves or Pigeons, and Partridges. All the reſt in manner want the ſaid gezzier, but in ſtead thereof have a wider gorge, wherethrough the meat paſſeth into the Stomacke, as Choughs, Ravens, and Crowes. Some againe there bee that have

A have neither one nor other, but bee farre different from the reſt, and theſe have their bellie hard to their gorge: and eſpecially ſuch as have long neckes and narrow, as the bird Porphyrio. The paunch or belly of thoſe beaſts which are whole houfed, is hard & rough. And in land beaſts, ir is in ſome thicke toothed, and ſet full of ſharpe prickes: in others it is framed rugged likewiſe, plaited croſſe in manner of lattice, readie to catch and bite whatſoever. Thoſe which have not teeth in both chawes, nor yet chew cud, do in this belly concoct and digeſt their victuals, and out of it they ſend the meat into the paunch where the guts lie. This member, in the middes, is in all creatures faſtened to the navill: and in man it is like unto that of a ſwine, having toward the neather part, a great gut named Colon: and this is it, which giveth occaſion to the intollerable paine of the colique. This Gut in dogs, is very ſtraight and narrow, whereupon they have
B much adoe to diſcharge it, and lightly they doe not skummer, but with great paine and difficultie. Thoſe creatures of all others be counted moſt unſatiable, whoſe meat paſſeth immediatly out of their belly into the ſtraight gut Longaon, or the Tiwill: as among foure-footed beaſts, the Woolfe, engendred betweene the Hind and a hee-Woolfe: and in foules, the Cormorant. An Elephant hath foure bellies or paunches: all other parts within, bee anſwerable to thoſe in Swine. Their lungs be foure times as big as thoſe in an Oxe. The gorge or craw, & the ſtomack or gizier in birds, is the thicke and fleſhie. In the maw or ſtomacke of Swallowes young birds, there be ſome certaine little white ſtones, or els of a reddiſh colour, called thereupon Chelidonij: and they be in great requeſt in Art-Magicke, namely for charmes and enchantments. Likewiſe in the ſecond belly or paunch of young Heifers, there is found a ſmall, blacke, and gravelly
C ſtone round as a ball, and light withall: a ſingular remedie (as it is thought) for women that have hard labour and be delivered with much paine and difficultie, ſo it bee taken before that ever it touch the ground. The Stomacke and the Guts, are kept within a fat and thin cawle, in all creatures but thoſe that lay egs. *The Cawle or Kell.*

Vnto this Cawle, is faſtned the Splene on the left ſide of the belly juſt over-againſt the liver. And otherwhiles theſe two ſhift their places, and one lieth where the other ſhould; but that is ever held as a prodigious token. Some are of opinion, that thoſe creatures which lay egs have a Splene, but it is very ſmall: as alſo the Serpents. And ſurely ſuch an one appeareth plainly in the Tortoiſe, Crocodile, Lizards, and Frogs. Certein it is, that the bird Ægocephalus hath none at all, no more than others that want bloud. This member hath a proprietie by it ſelfe ſometimes, *The Splene.*
D To hinder a mans running: whereupon profeſſed runners in the race that bee troubled with the ſplene, have a deviſe to burne and waſt it with an hot yron. And no marveile: for why? they ſay that the Splene may be taken out of the bodie by way of inciſion, and yet the creature live nevertheleſſe: but if it be man or woman that is thus cut for the Splene, hee or ſhee looſeth their laughing by the meanes. For ſure it is, that untemperate laughers have alwaies great Splenes. In Scepſis (a countrey of Aſia) the ſheepe have very ſmall Splenes, and from them were deviſed the remedies to cure the diſeaſe thereof, and to waſt their exceſſive greatneſſe.

But about Briletum and Tharne (the hils abovenamed) the Deere have four Kidnies apeece: whereas on the contrarie ſide, neither feathered foule nor skalie fiſh, have any. Moreover, the Kidnies ſticke cloſe unto the bones. The right kidney in all creatures is the bigger, leſſe fat, and dryer of the twaine: howbeit in both of them, there is a fat iſſueth out of the mids, ſave only in Seales. All living creatures are fatteſt about the raines of the backe: and ſheepe may be ſo farre overgrowne with fat, that they will die thereof. Sometime there be little ſtones found in them. All four-footed beaſts that bring forth their young quick, have Kidnies. And of ſuch as lay egs, the Tortoiſe alone, which alſo hath all other entrails. The Kidnies of a man, be like to thoſe of Kine and Oxen, as if they were compoſed of many togither. *Kidnies.*

Nature hath embarred the Breaſt-part (wherein lie the vitall members) with ribbes round about: but toward the belly (which needs muſt grow and ſtretch) ſhe hath not ſo done, but hath given it libertie: for no living creature hath bones to compaſſe the paunch. Mans Breaſt onely is broad and ſquare: in all others it is framed otherwiſe, like the keele of a ſhip: which is more evidently to be ſeene in birds and in water-foules moſt of all others. As for Ribs, man only hath
F eight that be full and whole: Swine have ten: horned beaſts thirteene: Serpents thirtie. *Breſt & Ribs.*

Vnder the belly and paunch in the fore-part of the bodie, hangeth the bladder: which no creature laying egs hath, ſave onely the Tortoiſe. It is found in none but ſuch as have a paire of lungs, and the ſame with bloud: neither in any creeping creature without feet. Betweene it and *The Bladder.*

the

the belly be certaine canals or arteries, reaching to the groine, which by the Greeks are named *Ilia*. [*i*. the Flankes.] In the bladder of a Wolfe, is found a little ſtone called Syrites. But in ſome mens bladders, ye ſhall ſee otherwhiles certaine groſſe haires to engender, like to briſtles; alſo gravell and ſtones, which put them to intollerable paine. This bladder conſiſteth of a certain tunicle or skin, which if it be once wounded, cannot be againe conſolidated; no more than thoſe fine pellicles or rinds that enwrap the braine and the heart. For you muſt thinke, that there bee many ſorts of theſe membranes or filmes ſerving to ſundry uſes.

The Matrice. As for women, their inward parts are anſwerable to mens in all theſe reſpects aboveſaid: and beſides, they have by themſelves adjoyning cloſe unto the bladder, another little bag or purſe; whereupon it is called in Latine *Vterus*: and it hath another name beſide, to wit, *Loci*; which we call the Matrice, the Mother, or the Wombe: and in other creatures it is tearmed *Vulva*. In Vipers, and ſuch as hatch their egs, within them it is double. In thoſe that lay egges, it lyeth faſt to the Midriffe. In women, it hath of either ſide two chambers or concavities. If at any time it chance to be perverted and turned the wrong way, or take aire into it, it is deadly, and riſeth up to ſtop the wind. If Kine be with Calfe, men ſay, that they carie not their yong but in the right cell or receptacle thereof, yea, although they go with two Calves at once. Our fine-toothed gluttons doe find a better taſt in a Sowes wombe that ſlippeth and caſteth her Pigs and it together, or is cut out of her bellie, than if the dam bringeth foorth her fruit at the full time. The one forſooth is called Ejecticia, the other Porcaria. And the beſt is that of a young Sow that never farrowed before: and contrariwiſe, of old Sows and ſuch as have given over to farrow. After ſhe hath pigged, unleſſe ſhe be killed the ſame day, the ſame hath a dead colour, and is but leane. And yet that of a young Swine is not greatly commended, unleſſe it be of her firſt Pigs. Howbeit, thoſe of old Sowes alſo be in requeſt, ſo they have not given over breeding: and namely, if they be taken either within two daies before they ſhould pig, or within two daies after they have pigged, or at leaſtwiſe, the very ſame day. The next to the caſt-wombe aboveſaid, is that of a Sow killed a day after ſhe hath pigged. The paps and teats of ſuch a Sow, newly having farrowed, is counted excellent good meat, ſo that it be taken before that ever the Pigs ſucked them drie: but thoſe of a Sow which hath caſt her Pigs before time, is held for the worſt of all. In old time they called this morcell in Latine *Abdomen*, and before it was growne hard and brawnie, they never were wont willingly and wittingly to kill Sowes, * even upon the point of their farrowing, and being readie to Pig [as our monſtrous gluttons doe nowadaies, becauſe they would have the teats ſoft, tender, and full of milke.]

* *incientes.*

Tallow and Greaſe. All horned beaſts having teeth growing but in one jaw, and paſterne bones about their feet, doe beare tallow or ſewet, and feed fat. Thoſe that be cloven-footed, or otherwiſe have feet devided into many toes, and beare no hornes; have no tallow, but greaſe or fat. The tallow or ſewet groweth to be hard, and when it is throughly cold, is brittle and apt to crumble and breake; and is ever found in the edge and extremities of the fleſh: contrariwiſe, the ſeame or greaſe is enterlarded betweene the fleſh and the skin; liquid it is, and eaſie to melt. Some creatures there bee that will never be fat, as the Hare and Partridge. Generally, whatſoever is barren, bee it male or female, will ſoon feed fat. Sooner grow they to be old which are overfat. No living creatures there are but have a certaine fat in their eies. And the tallow in any thing whatſoever, is ſenceleſſe: for neither hath it Arteries nor Veines. The fat alſo & greaſe in moſt of them, is without ſence: And hereupon it is, That ſome affirme, how Mice and Rats have gnawne and eaten fat Hogs whiles they were alive, and made them neſts in their backes: yea, and *Lucius Apronius* ſometimes Conſull, had a ſonne ſo fat that he could not goe, ſo heavie was he loden with greaſe; inſomuch, as he was faine to take ſome of his greaſe foorth of the bodie, and ſo diſcharge himſelfe and become lighter.

\+ *they were alive.*

Marrow. Marrow ſeemeth to be much of the ſame nature: in youth it is red, and in age waxeth white. This is never found but in hollow bones: and yet not in the legs of Horſe, Aſſe, Mule, or Dog. And therefore if they chance to be broken, they will not ſowder and unite againe; which happeneth when the Marrow runneth out to the place of the fracture. In thoſe that carie greaſe or ſewet, fattie it is and greaſie: but in horned beaſts it reſembleth Tallow. Sinewie it is, and that onely in the ridge of the backe of as many as have no bones, as namely, in all fiſhes. Beares have none at all. A Lion likewiſe hath but very little, to wit, in ſome few bones of his thighes and buts behind, and alſo of his legs before under his ſhoulders. For his other bones are ſo hard, that they will

ſtrike

ſtrike fire, as it were an hard flint. The Marrow is hard in them that gather no greaſe, but rather tallow.

Bones and Griſtles.

The bones of Aſſe legs are good to ſound ſhrill, and to make pipes of. Dolphins have verie bones, and not prickie chines: for they bring foorth their young alive. Serpents have onely prickie ridges. Fiſhes that be ſoft have no bones: but their bodie is bound with certaine hoopes or circles of fleſh, as the Cuttill and the Calamarie. Neither have Inſects any bones at all. Thoſe fiſhes which be not ſoft, but griſtly, have a kind of marrow in their ridge bone. Seales have griſtle, and no bone. The eares and noſethrils of all creatures, if they beare up but a little, have a ſoft tender griſtle apt to bend and wind: ſuch is the goodneſſe of Nature, providing that they ſhould not breake. A griſtle if it be broken, will not cloſe together and be ſound. Neither will bones, if ought be cut from them, grow again: unleſſe it be in horſes and ſuch beaſts of cariage, and namely, betweene the houſe and the paſternes.

Growth.

A man Groweth in heigth and length untill he be one and twentie yeares of age: then beginneth he to ſpread and burniſh in ſquareneſſe. As well men as women-kind, ſhute up moſt and undoe the knot that hindered their growth, when they are come to fourteene yeares of age, and be undergrowne: and moſt is this ſeene, if ſome ſickneſſe happen about that time.

Sinews, Cords, & Ligaments.

As for the Sinewes, Ligaments, and Cords, which take their beginning at the heart, be covered (as it were) with a certaine white and glutinous ſubſtance; and the like cauſe and nature they have. Theſe in all bodies, are tied to the ſlipperie bones: the knittings of the bones together, which be called joints, they faſten and bind together, ſome by comming betweene, others by claſping round about, and others againe, by paſſing croſſe over: in one place they bee twined round, in another broad, according as the figure of each part doth require. Be they cut atwo, as they cannot knit againe, ſo they put a man to no paine: pricke or wound them, a wonder to ſee, what extremitie of paine will thereupon enſue. Some creatures be without nerves and ſinewes, as namely fiſhes, for they ſtand much upon Arteries: and yet ye ſhall have neither the one nor the other in ſoft fiſhes. Look where there be Sinewes, Cords, and Ligaments, thoſe that lie more inward and underneath, ſtretch out the part and give libertie: wheras the uppermoſt that lie over them, draw the ſame in as much.

Veines and Arteries.

Among theſe are hidden the Arteries, that is to ſay, the paſſages of the ſpirit and life. And over them ride the Veines, even the very conduits and channels that carie the bloud. The Pulſe or beating of Arteries, is moſt evident in the extremities or ends of any members; and for the moſt part bewraieth hidden diſeaſes. *Herophilus* that renowmed Poet and interpreter of Phyſick, hath with marvellous skill reduced the order thereof into an art: he hath ſet downe moſt artificially, the certaine meaſures and times, the compaſſe, the metricall lawes thereof, according to every age: when they ſtrike even and ſteadie, when too faſt, when too ſlow. But the skill hereof is little exerciſed, and his invention in that behalfe neglected: becauſe it ſeemed overwittie, ſubtile, and curious. Howbeit, the obſervation of the ſtrokes, either comming thicke and faſt, or ſlow and ſoftly, giveth a great light to judge of the ſtrength of Nature, that governeth our life. Arteries want ſence, and no marvell, for they be without bloud. Neither doe they all containe within them vitall ſpirit. For there have beene knowne ſome of them cut in twaine, and yet that part of the bodie only is mortified, which received the offence. Birds have neither Veines nor Arteries. Likewiſe, Serpents, Tortoiſes, and Lizards, have but very little bloud. The Veines diſperſed at the laſt into moſt fine and ſmall threadie fibres under all the skin, grow at the length to be ſo ſlender that the bloud cannot poſſibly paſſe through them, nor any thing elſe: ſave a thin humour or moiſture, which through infinite ſmall pores of the skin doth breath forth, and ſtandeth there like a dew, and is called Sweat. The place where all the Veines doe meet in a round knot together, is the Navell.

Chap. xxxviii.

Of Bloud, as well that which ſooneſt waxeth drie, as that which will not thicken at all. Alſo, which is the groſſeſt bloud, and heavieſt, which the lighteſt and thinneſt: and laſt of all, what creatures living have no bloud at all.

THoſe that have much bloud, and the ſame fat and groſſe, are angrie and chollericke. The bloud of males is commonly blacker than that of females: yea, and more in youth than in old

old age: and the ſame in the bottome and lower part, ſettleth fatter and groſſer than above. In bloud conſiſteth a great portion and treaſure of life. When it is let out, it carieth with it much vitall ſpirit: howbeit, ſenceleſſe it is, and hath no feeling. The ſtrongeſt creatures be they which have the thickeſt bloud: but the wiſeſt, thoſe that have thinneſt: the more fearefull, that have leaſt: but dull and blockiſh altogether which have none at all. Buls bloud of all others ſooneſt congealeth and waxeth hard, and therefore poyſon it is, to be drunke eſpecially. The bloud of Bores, red and fallow Deere, Roe-buckes, and all Buffles, will not thicken. Aſſes bloud is moſt fattie and groſſe: and contrarily, mans bloud is thinneſt and fineſt. Thoſe beaſts which have more than foure feet, are bloudleſſe. Thoſe that be fat have ſmall ſtore of bloud, becauſe it is ſpent in fatneſſe. Man onely bleedeth at the noſe: ſome at one noſthrill alone, others at both: and ſome againe void bloud downeward by the Hæmorrhoids. Many there be that caſt up bloud at certaine times ordinarie, by the mouth: as not long ſince *Macrinus Viſcus*, late Pretor of Rome: and uſually every yeare *Voluſius Saturninus*, Provoſt of the citie; who notwithſtanding lived untill he was above foureſcore and ten yeares of age. Bloud is the onely thing in the bodie that encreaſeth preſently. For ſo we ſee, that beaſts killed for ſacrifice will bleed moſt freſhly and in greater abundance, if they dranke a little before. Thoſe creatures that lie hidden in the earth at certain times, (as we have ſaid before) have no bloud in all that while; unleſſe it bee ſome few, and thoſe verie ſmall drops gathered about their hearts. A wonderfull worke of Nature, that it ſhould be ſo: as alſo, that in a man it ſhould alter and change ever and anon, ſo as it doth upon every ſmall occaſion: and the force and ſtrength thereof varie, not only for defect and want of matter to diſperſe abroad, but alſo for every little motion and paſſion of the mind, as ſhame, anger, and feare. For one while it ſheweth pale, another whiles red, more or leſſe, in much varietie of degrees. In caſe of anger it wil ſhew one colour: of ſhame and baſhfulneſſe appearing in another. In fear, doubtleſſe it retireth and flieth back, in ſuch ſort, as a man knoweth not what is become of it: ſo as many in that fit have ben ſtabbed and run through, and yet bled not at all one drop: but this ſuddaine change of colour happeneth to men onely. For in other creatures, which (as we have ſaid) doe alter their hue, it is an outward colour that they take from the reflection of certaine places neare unto them, man alone hath this change from within himſelfe. To conclude, all maladies, and death eſpecially, conſume the bloud.

Chap. xxxix.

Whether in Bloud reſteth the ſoveraignetie or no? Alſo of the nature of Skin, of Haires, and the Paps.

SOme meaſure not the fineneſſe of ſpirit and wit by the puritie of bloud: but ſuppoſe that creatures are brutiſh, more or leſſe, according as their Skin is, thicker or thinner: and as the other covertures of their bodie be either groſſe and hard, or thin and tender: as we ſee for example in Oiſters and Tortoiſes. They affirme moreover, that the thick hide in Kine and Oxen, and the hard briſtles in Swine, impeach the entrance of ſubtile aire and fine ſpirit into their bodies: in ſuch wiſe, that nothing can pierce and paſſe through, which is pure and fine, as it ſhould be. And here to they bring men alſo, as a proofe, who are thicke skinned, and more brawnie; for to be more groſſe of ſence and underſtanding: as who would ſay, that Crocodiles were not verie wittie and induſtrious, and yet their skin is hard ynough. And as for the River-horſe, his hide is ſo thicke, that thereof javelines and ſpeares are turned: and yet ſo induſtrious is that beaſt, that in ſome caſe he is his owne Phyſician, and he hath taught us to open a veine, and let bloud. The Elephants skin is ſo tough and hard, that thereof be made targuets and ſhields, of ſo good proofe, that it is impoſſible to pierce them through: and yet they are thought to be of all foure-footed beaſts, moſt ingenious and wittie. Wherefore, conclude wee may, that the skin it ſelfe is ſenceleſſe, and hath no fellowſhip at all with the underſtanding: and eſpecially that of the head; and whereſoever it is of it ſelfe naked and without fleſh, be ſure (if it be wounded) impoſſible it is to conſolidate the wound, and namely, in the eie-lids and the bals of the cheekes. All creatures that bring forth their young quicke, are hairie: thoſe that lay egs, have either feathers, as birds: skales, as fiſhes: or elſe bee covered with ſhels, as Tortoiſes: or laſt of all, have a plaine skin and no more, as Serpents. The quils of all feathers bee hollow. Cut them, they will grow no more: plucke them, they will come againe. Inſects flie with thin and brittle pellicles or membranes.

The

The ſea Swallowes have them evermore moiſt and drenched in the ſea. As for the Bat, he is afraid to wet them, and therefore flieth about houſen, & his wings beſides are divided into joints. The haires that grow forth of a thick skin, are commonly hard and groſſe: but evermore thinner and finer in the females. In Horſes and Mares they grow at length upon their maines. Lions alſo have them long about their ſhoulders and foreparts. Connies have long haires about their cheekes, yea, and within-forth: as alſo in the ſoles of their feet: and ſo hath the Hares, according to the opinion of *Trogus*: who thereby collecteth, that hairie men likewiſe are more letcherous than others. The hairieſt creature of all other is the Hare. In mankind only there groweth haire about the privie parts: & whoſoever wanteth it, man or woman, is holden for barren, & not apt for generation. Haires in men and women are not all of one ſort: for ſome they bring with them into the world, others come up & grow afterwards. Thoſe that they have from their mothers wombe, do not lightly fall and ſhed, & leaſt of all in women. Yet ſhall ye have ſome women to ſhed the hairs of the head by occaſion of ſicklineſſe: as alſo other women to have a kind of downe upon their face; and namely, when their monethly fleures doe ſtay upon them. In ſome men, the latter kind of haires, to wit, of the beard, &c. will not come of their owne accord, without the helpe of Art. Foure-footed beaſts doe ſhed their haire yeerely, and have it grow againe. Mens haire of their heads, groweth moſt: and next to it, that of their beards. If the haire be cut, it groweth not again at the cut end, but ſpringeth from the root. It groweth apace in ſome ſickneſſes, and moſt of all in the conſumption of the lungs, and in old age, yea and upon the bodies of the dead. In leacherous perſons, the haire of their head, browes, and eye-lids, with which they came into the world, doe fall more early than in others: but thoſe that ſpring afterwards, grow ſooner againe, if they be cut or ſhaven. The wooll and haire that foure-footed beaſts doe beare, is more courſe and thick by age, but it commeth not in ſuch plentie as before. And ſuch have alwaies their back well covered with haire and wooll, but their bellies bare. Of Kine and Oxe hides ſodden, there is made glew: but the Bulls hide hath no fellow for that purpoſe. Man only of all males, hath evident paps in his breaſts: other creatures have little nipples onely in ſhew of teats. Neither have all females teats in their breaſt, but only ſuch as are able to ſuckle their young. None that lay egs have paps: nor any have milke unleſſe they bring forth their young living: and yet of all foules I muſt except the Bat alone. As for the illfavoured Scritchowles, called Stryges, I thinke they be but tales that goe of them: namely, That they will give milke out of their breaſts to young infants. True it is, all men agree in this, That the manner was in old time, to uſe in curſing and execration, the tearme of Strix, but what bird it ſhould be, I ſuppoſe no man yet knoweth.

Chap. xl.

Notable obſervations in living creatures, as touching their Paps.

SHee Aſſes are much pained with the ach of their Vdders, when they have foled: and therefore after ſixe moneths, they will not give them any more ſucke: whereas mares doe ſuckle their colts a whole yeare almoſt. Thoſe beaſts which be whole houſed, and have not above two young at once, have all of them two Paps and no more, and thoſe in no other place els, but betweene their hinder legges. Such as be cloven-footed, and horned likewiſe, have them in that place: but Kine have foure teats, Ewes and Goats but two apeece. Such beaſts as be very fruitfull and bring many young, and likewiſe whoſe feet be parted into toes, theſe have many nipples or teat-heads all along their belly, diſpoſed and ſet in a double courſe; as namely, Sowes: of which, thoſe of the better kind have twelve; the common ſort, but ten. Alſo Bitches after the ſame manner. Some beaſts have foure teats in the mids of their belly, as the Panthers: ſome twaine and no more, as the Lioneſſe. The Elephant alone hath twaine under his ſhoulders or legs before, and thoſe not evident in the breaſt-part, but ſhort therof and lying hidden as it were within the arme-pits. And generally, none that have their feet divided into toes, have Vdders behind under their hin-legs. A Sow, at every farrow, giveth the foremoſt nipples to thoſe pigs that come firſt, and ſo in order as they be farrowed: and thoſe teats be they that are next to her throat and higheſt. Every pig knoweth the own pap, and will take it & no other, when it commeth firſt into the world; and thereof it is nouriſhed. If a pig be taken from the Sow, the milke of that pap will drie up preſently, or returne backe, and the pap it ſelfe fall flat to the belly. Alſo if it chance that but one ſucking pig be left, that pap alone will do the part and let downe milke, which Nature

ture first appointed for that one pig. Shee Beares have foure paps apeece. Dolphins have no more but two teats and nipples in the bottome of their belly, and those not very apparent to the eye, nor streight and direct, but lying somewhat aside and byas: and no beast besides giveth sucke as it runneth, but shee. To conclude, Whales, Whirlepooles, and Seales, nourish their young with their udder and teats.

Chap. xli.

Of Milke: and of what milke cheese cannot be made.

THe Milke that commeth from a woman, before that shee hath gone seven moneths with child, is not good: but from that time forward, it is holesome, because the infant may live and doe well after that tearme. Many are so frim and free of milke, that all their breasts are strut and full thereof, even as farre as to their arme-holes. Camels give milke untill they be great with young againe: and their milke is thought to be most sweet and pleasant in tast, if to one measure thereof you put three of water. A Cow hath no milke ordinarily, before that shee hath calved. The first milke that she giveth downe, is called Beestins: which, unlesse it be delaied with some water, will soone turne to be as hard as a Pumish stone. Shee Asses are not so soone with young, but they have milke in their udders: But if they go in good and battle pasture, it is not good that their young foles should sucke their milke in two daies after; for the very tast thereof, is enough to kill them: and this disease that commeth of such Beestins, is called Colostratio. The milke that those give which have teeth in both chawes, is not good to make cheese of, because it will not cruddle. Camels milke, of all others, is thinnest; and Mares milke next to it. Asses milke is holden for to be thickest, and therfore they use it in stead of renning, to turn milke and gather curds thereof. It is thought also to be very good for to make womens skin faire and white. Certes the Empresse *Poppæa*, wife to *Domitius Nero*, had alwaies whersoever she went, five hundred shee Asses milch, in her traine: and in their milke she bathed and washed her whole bodie, as in an ordinarie baine, supposing that thereby her skin was not onely whiter, but also more neat, smooth, and void of rivels. All sorts of milke will thicken by fire, and turne into whey with cold. Cowes milke maketh more cheese than Goats milke, by twice as much almost, although you take no more of the one than the other. The milke of those that have above foure paps, is naught for cheese, but theirs is better that have but twaine. The rennet of an Hind-calfe, a Leveret, and a Kid, is much commended. But especially of a Leveret or Rabbet, which also is medicinable for the fluxe of the bellie: a thing to be observed in them alone, of all creatures that are toothed in both chawes. A wonder it is, that barbarous nations living of milke, have for so many hundred yeeres either not known, or els not regarded, the benefit of cheese: and yet they used to thicken their milke into a kind of pleasant soure-crud, in manner of a Sellibub: and to charn butter thereof: which is the very scum and creame of milke, much thicker than that which is called Whey. To conclude, I may not let passe, That Butter hath the vertue and properties of oile: insomuch, as forraine and barbarous nations, doe annoint their children therewith, as wee also doe ours.

Chap. xlii.

Cheeses of sundrie sorts.

AT Rome (the onely place that hath best meanes neare at hand, to judge of the fruits and commodities of all nations in the world) the Cheeses which come out of the provinces of Nemausium, and from the villages of Læso and Baux, are highly praised for the best; but they last not long: their commendation is for the present season, whiles they be greene and new. There are brought good Cheesesfrom two coasts of the Alpes, which greatly praise the pasture thereabout. Also, daintie cheeses are made in Dalmatia, from whence we have passing good; and namely, from Drinaldi. Moreover, the province of Ceutronia sendeth us excellent cheese from Vatusium. But the great store and plentie of cheese commeth from the Apennine mountain: which yeeldeth us the Cebane cheese out of Liguria; and that is very fine meat, notwithstanding it be made most of Ewes milke. Also out of Vmbria we have good cheese, from the dairies along the river Æsio. Howbeit in the confines betweene Tuscane and Liguria, the monstrous great cheeses are made, and namely about Luca, for one of them weigheth a thousand pounds.

pounds. Next to theſe in goodnes, be thoſe that are made neere unto the citie of Rome about Veſtinum: but from out of the Sæditian territorie and the plains thereabout, there come cheeſe that paſſe all the reſt. As for cheeſes made of Goats milke, they are not to be defrauded of their due praiſe, eſpecially when they are freſh and new made; and if beſides, they may have a little drineſſe in ſmoke, which giveth both a good luſtre & alſo a pretie taſt unto them: for ſuch cheeſes be made within the very citie of Rome, and goe beyond all others. As for the cheeſes made in Fraunce, they taſt like a medicine, and have an aromaticall relliſh with them. For outlandiſh cheeſes beyond-ſea, the Bithynian carry the beſt name. That there is a certain tartar or ſalt, (if by nothing els) may well be knowne by the taſt of the cheeſe made thereof: for there is none but the older they are, the more ſaltiſh they bee: and yet ſuch are well knowne to recover their freſh taſt againe, if they bee ſoked in thyme-vinegre. Some report, that *Zoroaſtres* lived in the deſert wildernes twentie yeeres with cheeſe: the which was ſo well tempered, that it ſeemed nothing old, for neither it moulded, nor yet bred vermin.

Chap. xliii.

The difference betweene the members of Man and other creatures.

OF living creatures upon the land, Man alone is two-footed. He only hath a cannell bone and ſhoulders; armes alſo to embrace: whereas others have ſhoulders onely and fore-legs to reſt upon. In all creatures that have hands, they be fleſhie withinforth onely: for the back-part conſiſteth of skin and ſinewes. Some men there be, with ſix fingers to one hand. We have heard, that *M. Curiatius*, a nobleman of Rome, had two daughters ſo handed: whereupon they were ſurnamed *Sedigitæ*. Alſo there was a man named *Volcatius*, who was an excellent Poet, and had ſix fingers to an hand, whereupon he was ſurnamed *Sedigitus*. Every finger of a mans hand hath three joints; the thumb twaine, and it bendeth and boweth full oppoſite to all the reſt of the fingers: and yet by it ſelfe he ſtretcheth awrie from the others, and is thicker than the reſt of the fingers. The little finger is equall in length to the thumbe: the fore-finger and the fifth (or ring-finger) are juſt of one ſize: betweene which, the middle finger is the longeſt. Thoſe foure-footed beaſts that live of ravine and prey, have five toes in their fore-feet, whereas others have but foure. Lions, Wolves, and Dogs, and ſome few others, have likewiſe five toes or pawes in their hin-feet, and one like a ſpurre, which beareth foorth behind and hangeth downe from the paſterne-bone of the foot. All other ſmaller beaſts have five to a foot. The armes of all men be not of a juſt and even meaſure: for it is well knowne, That there was a Thracian ſword-fencer named *Studieſus*, belonging to the fence-ſchoole of *C. Caligula* the Emperor, whoſe right arme was longer than the left. Certain beaſts without reaſon, uſe the miniſterie of their fore-feet in ſtead of hands, and as they ſit upon their rumpe, reach meat therewith to their mouth; as the Squirrils.

Chap. xliiii.

The reſemblance that Apes have to men.

AS for all the race and kind of Apes, they reſemble the proportion of men perfitly in the face, noſe, eares, and ey-lids: which eye-lids, theſe creatures alone (of all foure-footed) have under their eyes as well as above: nay, they have paps and nipples in their breaſts, as women: armes alſo and legs bending contrary wayes, even as ours do. Nailes they have likewiſe and fingers like to us; with the middle finger longer than the reſt, as ours be. A little they differ from us in the feet: for ſomwhat long they are, like as their hands be: and the ſole of their foot is anſwerable to the palme of their hand. Thumbs and great toes they have moreover, with joints like (in all the world) to a man. And ſetting aſide the member of generation, and that only in the hee Ape, all inward parts are the very ſame that ours, as if they were made juſt by one patterne.

Chap. xlv.

Of Nailes.

NAiles are taken and reputed for the extremities and utmoſt ends of the ſinewes: and yee ſhall find them in as many as have fingers or toes. But in Apes they are channelled

halfe round like a gutter tile: whereas in man they be flat and broad. When one is dead, they will grow. In ravenous creatures, hooked they be and bowing inward: in dogs, right and ſtreight, ſave only that, which in moſt of them crooketh from behind their legs like a ſpurre. All creatures that have the faſhion of a foot, have toes thereto, except an Elephant. And yet hee ſeemeth to have an apparence of five in number, but they are not divided aſunder; or if they be, they are not diſtinct one from another but very ſlightly, and liker rather to houfes than to nails: the fore-feet alſo are bigger than the hinder. In the hin-feet they have ſhort joints. The Elephant bendeth his hammes inward, as doth a man: whereas all other living creatures, bow the joynts of their hinder legs otherwiſe than of the former. For ſuch as engender and breed young alive, bend their knees before them: but the joint of their hough behind, cleane backward. Mens knees and elbowes, doe bow contrarie one to the other: ſo doe Beares and all the ſort of Apes; which is the cauſe that they be not ſo ſwift of foot as others. Four-footed beaſts, as many as lay egs, (as the
2 Crocodile and Lizards) have their knees before, bending backward; but thoſe behind, bowing forward: and yet their legs be crooked like a mans thumb. In like ſort, they that have many feet: unleſſe it be the hin-feet of all, in as many as do skip and hop; for they all be ſtreight. Birds (after the manner of four-footed beaſts) doe bow their wings forward, but the joynt of their leggs backward.

In the Knees of men, there is generally repoſed a certain religious reverence, obſerved even in all nations of the world. For, humble ſuppliants creepe and crouch to the knees of their ſuperiours; their knees they touch, to their knees they reach forth their hands: their knees (I ſay) they worſhip and adore as religiouſly as the very altars of the gods. And for good reaſon haply they do ſo; becauſe it is commonly received, That in them their lieth much vitall ſtrength. For in the very joint and knitting of both knees, on either ſide thereof before, there are two emptie bladders (as it were) like a paire of cheekes; which hollowneſſe or concavitie, if it be wounded and
3 pierced through, cauſeth as preſent death as if the throat were cut. In other parts likewiſe of the bodie, we uſe a certain religious ceremonie: for as our manner is to offer the backe part of the right hand to be kiſſed, ſo we put it forth and give it as well in teſtimonie of faith and fidelitie. It was an auncient faſhion in Greece, when they would make court and with great reverence tender a ſupplication to ſome great perſonage, for to touch the chin. In the render lappet of the
4 eare, is ſuppoſed to reſt the ſeat of remembrance, which we uſe to touch when we purpoſe to take one for to beare witnes of an arreſt or other thing done, and to depoſe the ſame in the face of the court. Moreover, behind the right eare likewiſe, is the proper place of *Nemeſis* (which goddeſſe could never find yet a Latine name, ſo much as in the very Capitoll) and that place are we woont to touch with the fourth finger (which is next to the leaſt) in token of repentance, when we have let fall ſome word raſhly, and would crave pardon of the gods therefore. The crooked and ſwelling veines in the legs, man alone hath, and women very ſeldome. *Oppius* writeth, that *C. Marius* (who had been Conſull of Rome ſeven times) endured, without ſitting downe for the matter, to have thoſe vains taken forth of his legs: a thing that never any was knowne to abide before him. All four-footed beaſts begin to goe ordinarily on the right hand, and uſe to lie downe on the right ſide: others go as they liſt. Lions and Camels only have this propertie by themſelves, To keepe pace in their march foot by foot, that is to ſay, they never ſet their left foot before their right, nor overreach with it, but let it gently come ſhort of it and follow after. Men and women have the greateſt feet in proportion, of all creatures: but females ordinarily in every kind have leſſe and ſlender feet than males. Men and women onely have calves in their legs, and their legs full of fleſh. Howbeit we read in ſome writers, That there was one man in Ægypt had no calfe at all to his legs, but was legged like a Crane. Man alone hath palmes of his hands, and broad flat ſoles to his feet: and yet ſome there be, who that way are deformed and disfigured. And therupon it came, that divers came to be ſurnamed *Planci*, [*i.* flat-footed:] *Plauti*, [*i.* ſplay-footed:] *Scauri*, [*i.* with their ankles ſtanding over-much out:] *Pauſi*, [*i.* broad-footed.] Like as of their misſhapen legs, ſome have been named *Vari*, [*i.* wry-legged:] others *Vatiæ*, and *Vatinij*, [*i.* bow-legged:] which imperfections beaſts alſo are ſubiect unto. Whole houfed are all they that beare not hornes: in regard whereof, they be armed with houfe in ſtead of that offenſive weapon: and ſuch as they be, have no ankle-bones: but all cloven-footed have thoſe bones. Howbeit as many as have toes, want ankles: and in one word, there is not one hath them in the fore-feet. Camels have ankles like to Kine and Oxen, but ſomwhat leſſe: for indeed they be cloven footed, although

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the partition be very little, and hardly discerned under the foot, but seemeth flesh all over the sole, as Beares also, which is the cause that if they travaile farre unshod, their feet are surbated, and the beasts will tire.

Chap. xlvi.

A discourse of beasts Houfes.

THe Houfes of Horfes, Mules, Affes, and fuch like beafts of carriage only, if they be pared and cut, will grow againe. In fome parts of Sclavonia, the Swine are not cloven-footed, but whole houfed. All horned beafts in manner be cloven footed: but no beaft beareth two hornes, and hath withall the houfe of one entire peece. The Indian Affe hath onely one horn. The wild Goat alfo called Oryx, is cloven houfed, and yet hath but one horn. The Indian Affe moreover, of all whole houfed beafts alone, hath the paftern or ankle-bones. As for Swine, a mungrell kind they are thought to be of both, in regard of thofe bones; and therupon are reputed filthie and accurfed. They that have thought that a man had fuch, are foone convinced. As for the Once, he indeed alone of all thofe whofe feet are divided into toes, hath that which fomewhat refembleth a paftern bone. So hath a Lion alfo, but that it is more crooked and winding. As for the ftreight paftern bone indeed, it beareth out with a belly in the joynt of the foot; and in that hollow concavitie wherein the faid bone turneth, it is tied by ligaments.

Chap. xlvii.

Of Birds feet, and their Clawes or Tallons.

OF Foules, fome have their feet divided into clees and toes; others be broad and flat footed: and fome are betweene both; which have indeed their toes parted and diftinct, and yet their feet be broad between. But all of them have foure toes to a foot: to wit, three in the fore-part, and one behind at the heele in manner of a fpurre: howbeit this one is wanting in fome that are long legged. The Wrynecke or Hickway, with fome few others, have two before and other two behind. The fame bird putteth out a tongue of a great length, like to ferpents. It turneth the necke about and looketh backeward: great clawes it hath like thofe of Choughes. Some bigger birds have in their legs one other fhanke-bone more than ordinarie. None that have crooked tallons, be long legged. All that ftaulke with long fhankes, as they flie ftretch out their legs in length to their tailes: but fuch as be fhort legged, draw them up to the mids of their belly. They that fay, No bird is without feet: affirme alfo, That *Martinets have feet: like as alfo the fwift Swallow called Oce, and the fea Swallow Drepanis. And yet fuch birds come fo little abroad, that they be feldome feene. To conclude, there have ben now of late, Serpents known flat-footed like Geefe. * *Apodes.*

Chap. xlviii.

Of the feet of Infects.

ALl Infects having hard eies, have their fore-legges longer than the reft, to the end that otherwhiles they might with them, fcoure their eies, as wee fee fome flies doe: but thofe whofe hinder-legs are longeft, ufe to skip and hop, as Locufts. Howbeit, all of them have fix legs apeece. Some Spiders there be, that have two over and above the ordinarie, and thofe be very long: and every leg hath three joynts. As for fome fea-fifhes, wee have faid before that they have eight legs: namely, Manyfeet, Pourcuttles, Cuttles, Calamaries, and Crabfifhes: and thofe moove their fore-clees like armes a contrary way, but their feet either they turne round or elfe fetch them crooked atone-fide: and a man fhall not fee any living creature again, all round, but they. As for others, they have two feet to guide them and lead the way; but Crabs onely have foure. There be Infects befides upon the land, that exceed this number of feet; and then, they have no fewer than twelve: as the moft fort of wormes: yea and fome of them reach to an hundred. No creature whatfoever hath an odde foot. As touching the legs of thofe which be whole houfed, they be all full as long when they firft come into the world, as ever they will be: well may they fhoot out bigger and burnifh afterward, but (to fpeake truly and properly) they

grow no more in length. And therefore when they be young ſucking foles, a man ſhall ſee them ſcratch the eare with the hinder-feet: which, as they waxe elder and bigger, they are not able to doe, becauſe their legges thrive only in outward compaſſe, and not in length. Which alſo is the cauſe, that when they be new foled, they cannot feed themſelves but kneeling, untill ſuch time as their necks be come to their full growth and juſt proportion.

Chap. xlix.

Of Dwarfes: and genitall parts.

THere are no living creatures in the world (even the very foules of the aire not excepted) but in each kind there be dwarfes to be found. As for thoſe males which have their inſtruments of generation behind, we have ſufficiently ſpoken. In Wolves, Foxes, Weeſils, and Ferrits, thoſe genitall members be of a bonie ſubſtance; and of them there be ſoveraign medicines made, for to cure the ſtone and gravell in mans bodie engendred. The Beares piſſe alſo, becommeth as hard as an horne (men ſay) ſo ſoone as his breath is out of his bodie. As for Camels piſſes, they uſe in the Eaſt countries to make their beſt bow-ſtrings thereof, which they account to be the ſureſt of all others. Moreover and beſides, the genitall parts put a difference betweene nation and nation; alſo betweene one religion and another: for the prieſts of *Cybele* (the great mother of the gods) uſe to cut off their owne members and to gueld themſelves, without daunger of death. On the contrary ſide, ſome few women there be, monſtrous that way, and in that part reſemble men: like as wee ſee there are Hermaphrodites, furniſhed with the members of both ſexe. In the daies of *Nero* the Emperour, the like accident was ſeene (and never before) in ſome four-footed beaſts. For he, in very truth, exhibited a ſhew of certaine Mares that were of the nature of thoſe Hermaphrodites, found in the territorie of Treviers in Fraunce: and they drew togither in his owne coach. And verily a ſtraunge and wondrous ſight this was, To ſee the great monarch of the world, ſit in a charriot drawne by ſuch monſtrous beaſts. As touching the ſtones of Rams, Buckes, and greater beaſts, they hang dangling downe betweene their legs: but in Bores, they be truſt togither, & knit up ſhort cloſe to their belly. Dolphins have theſe parts very long, and the ſame lying hidden within the bottome of their bellies. In Elephants likewiſe they be cloſe and hidden. In as many creatures as doe lay egges, the ſtones ſticke hard to their loines within the bodie: and ſuch bee ever moſt quicke of diſpatch in the act of generation, and ſoone have done the feat. Fiſhes and Serpents have none at all; but in ſtead therof there be two ſtrings or veines reach from their kidnies to their genitall member. The * Buzzard (a kind of Hawke) is provided of three ſtones. A man hath his cods ſometimes bruiſed and broken, either by ſome extraordinarie accident, or naturally: and ſuch as be thus burſt, are counted but halfe men, and of a middle nature betweene Hermaphrodites and guelded perſons. To conclude, in all living creatures whatſoever, the males bee ſtronger than the females, ſetting aſide the race of Panthers and Beares.

*Triorchis.

Chap. l.

Of Tailes.

THere is not a living creature, excepting men and Apes, (take as well thoſe that bring foorth their young alive, as others that lay egges onely) but is furniſhed with a taile, for the neceſſarie uſe of their bodies. Such as bee otherwiſe rough-haired and briſtly, yet have naked tailes, as Swine: thoſe that be long ſhagged and rugged, have very little and ſhort skuts, as Beares: but as many as have long ſide haires, be likewiſe long tailed, as Horſes. If Lizards or Serpents have their tailes cut off from their bodies, they will grow againe. In fiſhes they ſerve in good ſtead, as rudders and helmes to direct them in their ſwimming: yea they fit their turnes as well as oares, to ſet them forward as they ſtirre them, to this or that hand. There be Lizards found with double tailes. Kine and Oxen have the longeſt rumpe for their tailes of any other beaſts; yea and the ſame at the end, hath the greateſt tuft and buſh of haire. Aſſes have the ſaid docke or rumpe longer than horſes: and yet all ſuch beaſts either for ſaddle or packe, have it ſet out with long haires. Lyons tailes are faſhioned in the verie tip thereof, like unto Kine or Oxen, and Rats: but Panthers are not in that wiſe tailed. Foxes and Wolves

have

A have ſhag tailes like ſheepe, but that they be longer. Swine carrie their tailes turned and twined round. And Dogges, that be of curres kind and good for nothing, carrie their tailes cloſe underneath their bellies.

Chap. lı.

Of Voices.

Ariſtotle is of opinion, That no living creature hath any voice, but ſuch onely as are furniſhed with lungs and wind-pipes: that is to ſay, which breath and draw their wind: & therefore he holdeth, that the noiſe which we heare to come from Inſects, is no voice at all, but
B a very ſound, occaſioned by the aire that getteth within them, and ſo being encloſed, yeeldeth a certaine noiſe, and reſoundeth againe. And thus it is (quoth he) that ſome keepe a humming or buzzing, as Bees: others make a cricking with a certain long traine, as the Graſhoppers; for evident it is, and well knowne, that the aire entring into thoſe pipes (if I may ſo tearme them) under their breaſt, and meeting with a certaine pellicle or thin skin, beateth upon it within, and ſo ſetteth it a ſtirring, by which attrition, that ſhrill ſound commeth. Againe, it is as apparent, that in others, and namely, Flies and Bees, the buzzing which wee heare, beginneth and endeth ever with their flying. For (no doubt) that ſound commeth not of any wind that theſe little creatures either draw or deliver, but of the aire which they hold encloſed within, and the beating of their wings together. As for Locuſts, it is generally beleeved and received, that they make that ſound
C with clapping of their feathers or wings and thighes together. In like manner, among fiſhes in the waters, the great Scallops make a certaine noiſe as they ſhoot out of the water. But ſoft fiſhes and ſuch as lie covered with a cruſt or ſhell, neither utter voice, nor yet yeeld ſound. As for other fiſhes, although they be without lungs and pipes, yet are they not quite mute, but deliver a certaine ſound. Howbeit, they that would maintaine, that fiſhes are dumbe indeed, doe cavill and ſay, that ſuch a noiſe commeth of craſhing and grinding their teeth together. But what will they ſay then to the water-Goat, and the river-Bore, which in the river Achelous do evidently grunt: as alſo others, whereof we have ſpoken? Againe, ſuch as lay egges doe hiſſe: and Serpents draw their hiſſing out in length. The Tortoiſe hiſſeth likewiſe, but after a broken manner, with ſtaies and reſts betweene. Frogs keepe a croaking after their kind, as hath been ſaid before: & yet a man
D may ſeeme well to doubt thereof, how it ſhould be? conſidering, that the noiſe which they make commeth but from their teeth and mouth outward, and is not framed in their breaſt or ſtomack. Howbeit, in them there is great difference, by occaſion of the nature of diverſe countries. For in Macedonie (by report) they are mute: and there alſo the Swine be dumbe. As for birds, the leaſt evermore be moſt full of chirping, chaunting, and ſinging; and moſt of all, about the treading time. Some of them keepe a ſinging when they fight, as Quailes: others, when they go to fight, as Partridges: and ſome againe after victorie, as Cockes. And they have a crowing by themſelves differing from the cackling of hens: whereas in other birds you cannot diſcerne the male from the female by the ſinging, as we ſee in Nightingales. Some ſing all the year long, others at certain times, as we have more at large declared, in the particular treatiſe of each bird. The Elephant he
E ſendeth out at his very mouth (ſomewhat ſhort of his muffle) a certaine ſound like to sneeſing: but through that muffle or trunke of his, he ſoundeth (as it were) out of a Trumpet. Kine onely of females, have a bigger voice than Buls: for in every kind els the female hath a ſmaller voice than the males: like as wee ſee in mankind, the guelded Eunuchs. As an infant is comming into the world, it is not heard to crie all the while that it is in the birth, before it be fully borne. When it is a yeare old, it beginneth to prattle and talke, but not afore. King *Craſus* had a ſonne, who lying ſwaddled in his cradle, ſpake by that time he was ſixe months old: but this was a prodigious ſign, and preſaged the finall ruin of that kingdome. Thoſe children that begin with their tongue betime, are later ere they find their feet. The voice in man or woman beginneth to change & waxe greater at 14 years of age. The ſame in old age groweth again to be ſmaller: & in no other creaF ture doth it more often alter. Moreover, as touching the Voice, there be ſtrange and wonderfull matters reported, and thoſe worth the rehearſall in this place. For firſt and formoſt, we do ſee, That upon the skaffold or ſtage in publicke Theatres, if the floore be ſtrowed over well and thick with ſaw-duſt or ſand, the voice of the actors will be drowned & loſt, yea, and remaine ſtill above the skaffold, as if it were there buried: alſo where there be hollow & uneven wals round about:

or emptie drie-fats and tuns ſet, the voice will be taken up in them, and paſſe no farther. But the ſame voice, betweene two walls directly ſet one along by another, runneth apace: yea, & through a vault it may be heard from the one end to the other, be the ſound never ſo low; provided, that all bee ſmooth and even betweene, and nothing to hinder the paſſage thereof. To ſpeake yet ſomewhat more of the Voice: In it reſteth a great part of the countenance and viſage of man, whereby hee is diſcerned and knowne. For we know a man by hearing his voice before wee ſee him, even as well as if our eies were fixed upon him. And looke how many men and women there are in the world, ſo many ſundrie voices there bee, for each one hath a ſeverall voice, as well as a face, by himſelfe. And hereof ariſeth that varietie of nations, that diverſitie of languages, all the world through. From hence come ſo many tunes in ſong, ſo many notes in Muſicke, as there bee. But above all, the greateſt thing to be noted in Voice, is this, That whereas the utterance of our mind, thereby dooth diſtinguiſh us from brute and wild beaſts: the ſame even among men maketh as great a difference betweene one and another, as the other is betweene man and beaſt.

Chap. lii.

Of the excreſcence and ſuperfluitie of ſome members. Alſo the diſcourſe and ſayings of Ariſtotle as touching mans life.

LOoke what part is more than ordinarie by nature, in any living creature, the ſame ſerveth to no uſe. As for example, the ſixt finger in a mans hand is evermore ſuperfluous, and therfore fit for nothing. It was thought good in Ægypt once to nouriſh and keep a monſtrous man who had foure eies, whereof twaine ſtood in the backe part of his head behind: but ſurely he ſaw never a whit with them. I wonder verily, that *Ariſtotle* not onely beleeved, but alſo ſticked not to ſet downe in writing, that there were certaine ſignes in mans bodie, whereby wee might foreknow whether he were long lived or no. Which, albeit I take to be but vanities, and not raſhly to bee uttered without good adviſement, (becauſe I would not have men amuſed, and buſily occupied in ſearching Prognoſtications in themſelves, as touching their own life) yet will I touch the ſame, and deliver them in ſome ſort, ſince ſo great a clearke as *Ariſtotle* was, held them for Reſolutions, and thought them worth the penning. Hee putteth downe therefore, as ſignes of ſhort life, thin teeth, long fingers, a leaden hew, many lines in the palme of the hand, with croſſe bars or ſhort cuts. Contrariwiſe, hee ſaith, That thoſe who are Lute backed, thicke ſhouldered, and bending forward, who alſo in one hand have two long life lines, and above two and thirtie teeth in their head, and beſides are well hanged, and have large eares, bee long lived. And as farre as I can gueſſe, he requireth not, that all theſe ſignes ſhould concurre and meet together, for to ſignifie as is beforeſaid: but, as I ſuppoſe, his meaning is, that every one of them by it ſelfe is ſignificative and ſufficient. Surely, theſe Phyſiognomers and Chiromantines or Palmeſtrie, as frivolous and fooliſh as they be, yet now adaies are in credite, & every man is full of them. *Trogus*, a moſt grave and renowmed Author among us, is of opinion moreover, That there is judgement to bee given, not onely of mens complexions, but alſo of their conditions, by their very ſight and countenance: and ſurely, I thinke it not amiſſe to ſet downe his very words. A large and broad forehead (ſaith he) is a token of a dull conceit and heavie underſtanding: and contrariwiſe, they that have a little forehead, are by nature fickle and inconſtant: and finally, a round forehead, and bearing out, argueth anger and choller, as if this outward tumor thereof bewraied the ſwelling and boiling of that humor. In whomſoever the eie-browes are ſtreight and lie even, they betoken ſoft and effeminat perſons: but if they bend and bow toward the noſe, they ſhew auſteritie. Say their turning and bending be toward the temples of the head, they are ſigns of a mocker and ſcorner: finally, where they lie very low, ſuch perſons (be yee ſure) are malicious, ſpightfull, and envious. Long eies, in whomſoever they be, doe teſtifie hurtfull and daungerous perſons. They that have the corners full of fleſh, are of a malicious nature: where the white of the eie is ſpread large and broad, it is a token of impudencie. And ſuch as every whiles be winking and cloſing of their eie-lids, (truſt me truly) they bee giddie-headed, and unſtaied. Thoſe that have great eares, and eſpecially the laps therof, make acoount they be blabs of their tongue, and fooles withall. Thus much of Phyſiognomie, according to *Trogus*.

Chap. liii.

Of the ſpirit and breath of living creatures: alſo, what things be venomous in taſt, and do kill. Of mens food. And laſt of all, what hindereth digeſtion and concoction of meat.

THe breath of Lions hath a very ſtrong deane and ſtinking ſmell with it: but that of a Beare is peſtilentiall and deadly: inſomuch, as no beaſt will touch where a Beare hath breathed and blowne upon: for ſurely ſuch will ſooner corrupt and putrifie than others, as if they were blaſted. As for the breath of a man, Nature hath ſuffered it to be infected many waies, namely, by the viands and meat that hee eateth; by faultie and rotten teeth; and moſt of all, by old age. And yet our breath, without which there is no ſence, feeleth no pain it ſelfe, as being void of feeling, and altogether ſenceleſſe. The ſame goeth and commeth continually without reſt and intermiſſion: the ſame is alwaies new and freſh: and as it ſhall depart out of the bodie laſt, ſo it ſhall remaine alone, when all is gone beſides it. Finally, returne it ſhall into the aire and the heaven, from whence it firſt came. Now, albeit this breath that we draw, be the very meanes whereby we live, and without which we cannot maintaine our life; yet otherwhiles troubleſome it is unto us, and plagueth us as a very puniſhment ordained for us. The Parthians of all others bee moſt ſubject to this inconvenience, even from their very youth, by reaſon of their groſſe feeding of all meats indifferently, without choiſe and diſcretion: and eſpecially of their drunkenneſſe. For exceſſive drinking of wine cauſeth ſtinking breath. But the Nobles and great States of that countrey have a remedie therefore, and make their breath ſweet, by taking with their meats the kernels of Pome-citrons, which yeeld a moſt pleaſant ſavour. The very breath of Elephants cauſeth Serpents to come out of their holes: but Stags and ſuch other Deere, therewith doe blaſt and burne them. As touching certaine kinds of men, who by ſucking only could draw and fetch out the poiſon out of bodies wounded by venomous Serpents, we have alreadie ſpoken. As for hogs, they will feed of Serpents, and doe well ynough, whereas to other creatures they be no better than poyſon. All thoſe little creatures, which we named Inſects, will die if they bee but ſprinckled or wet with Oile. The Vultures or Geires which flie from ſweet ointments, are deſirous yet of other odors and perfumes: like as Beetles like well the ſmell of Roſes. Some Serpents there be that the Scorpion killeth. The Scythians poyſon their arrow heads with the venomous filthie bloud of vipers and mans together. A preſent poyſon this is, and remedileſſe; and it no ſooner toucheth but it taketh, and killeth forthwith. As touching thoſe creatures that feed of poyſon, we have ſpoken heretofore. Moreover, ſome creatures there be, which otherwiſe being harmeleſſe, if they bee fed with venomous beaſts or plants, become alſo themſelves noiſome and daungerous. The wild Bores in Pamphylia, and upon mountaines of Cilicia, that have eaten Salamanders, become venomous: and whoſoever chaunce to eat of their veniſon, are ſure to die upon it. And yet cannot a man know any ſuch venome therein, either by ſent at noſe, or taſt of tongue. Moreover, the very water or wine wherein a Salamander hath been ſtiffled and ſuffocated, or whereof it hath but drunke, will kill a man that ſhall but ſip thereof never ſo little. The like is to be ſaid of that Frog which we call *Rubeta*, [*i.* the toad that liveth in buſhes.] See how many ambuſhes our life is ſubject unto! Waſpes feed greedily on Serpents, and upon that food their ſtings bee deadly. And therefore you ſee it skilleth much what meats we eat, and the manner of our food is very materiall. As we may learne farther in that treatiſe which *Theophraſtus* wrote of the Ichthyophagi that live of fiſh: where he hath ſet downe, That Kine and Oxen doth eat fiſh, but they muſt in any caſe be alive.

To come now unto mens diet: their beſt and moſt wholeſome feeding is upon one diſh and no more; and the ſame plaine and ſimple: for ſurely this hudling of many meats one upon another of diverſe taſts, is peſtiferous: but ſundrie ſauces are more daungerous than that. As touching our concoction: all tart and ſharpe meats are of hard digeſtion: alſo fulneſſe and ſurfeting: haſtie and greedie feeding likewiſe be enemies to digeſtion, and hurtfull to the ſtomacke. In ſumme, we digeſt our meat more hardly in Summer than in Winter, and in age worſe than in youth. Now to helpe and remedie all this exceſſe and enormitie, vomite hath been deviſed: but uſe it whoſoever will, he ſhall find the naturall heat of his bodie thereby to decay: he ſhall ſenſibly perceive that it hurteth the teeth, and eies eſpecially. To goe to bed upon a full ſtomacke, and

to digeſt in ſleepe, is better to make a man fat and corpulent, than ſtrong and luſtie. And therfore wreſtlers and champions who are acquainted with full and liberall diet, uſe rather to walke after meat for to digeſt. And in one word, much watching maketh beſt digeſtion.

Chap. liiii.

Of making bodies fat or leane. Alſo, what things being taſted, doe allay hunger, and quench thirſt.

BOdies grow to be burly and groſſe, with ſweet meats, fat feeding, and much drinke: contrariwiſe, drie diet, actually cold, and thirſt withall, make a bodie leane. There bee beaſts in Affricke, and eſpecially the leſſer ſort, which drinke not above once in foure daies. A man may well live ſeven daies without any food whatſoever: & well it is knowne, that many have continued more then eleven daies without meat or drinke. There have been ſome knowne ſo hungrie evermore, that nothing would ſatisfie them, and ſuch have died for very famine, although they did nothing els but eat: a diſeaſe incident to no creature but to man. Some againe can aſſuage and appeaſe their hunger, yea, and ſlacke and extinguiſh their thirſt with a very little, and yet preſerve and maintaine the naturall ſtrength of their bodie: namely, with taſting Butter, Cheeſe made of Mares or Aſſes milke, and Licorice. But to conclude and knit up this diſcourſe: the worſt and moſt dangerous thing every way that can be in all the courſe of our life, is Exceſſe and Superfluitie; but to the health of our bodies moſt of all: and therefore the beſt courſe is, to cut off by all meanes that which is offenſive and heavie to the bodie. Thus much ſhall ſuffice as touching living and ſenſible creatures. Let us therefore now proceed to the reſt of Natures workes.

THE TVVELFTH BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

The Preface.

THus you ſee by that which hath been written before, what are the natures as well in generall, as particularly in parts, of all living and ſenſitive creatures within the compaſſe of our knowledge. It remaineth now to diſcourſe of thoſe which the earth yeeldeth: and even they likewiſe are not without a ſoule in their kind (for nothing liveth which wanteth it:) that from thence we may paſſe to thoſe things that lie hidden within the earth, and are to bee digged out of it: to the end, that no worke and benefite of Nature might overpaſſe our hands, and be omitted. And in truth, theſe treaſures of hers lay long covered under the ground, inſomuch as men were perſuaded, that Woods and Trees were the laſt and onely goods left unto us and beſtowed upon us by Nature. For of the fruit of trees had wee our firſt food: their leaves and branches ſerved to make us ſoft pallets and couches within the caves: and with their rinds and barke we clad and covered our nakedneſſe. And even at this day, ſome nations there be that live ſtill in that ſort, and no otherwiſe. A wonderfull thing therefore it is, that from ſo ſmall and baſe beginnings we ſhould grow to that paſſe in pride, that we muſt needs cut through great mountaines for to meet with marble: ſend out as farre as to the Seres for ſilke ſtuffe to apparell us: dive downe into the bottome of the red ſea for pearles: and laſt of all, ſinke deepe pits even to the bottome of the earth, for

for the precious Hemerauld. For this pride and vanitie of ours, wee have deviſed meanes to peirce and wound our eares: becauſe, forſooth, it would not ſerve our turnes to weare coſtly pearles and rich ſtones in carkanets about our necke, borders upon the haire of our head, bracelets about our armes, and rings on our fingers, unleſſe they were engraven alſo and cut into the very fleſh of our bodies. Well then, to follow the courſe of Nature, and the order of our life (as meet it is we ſhould) we will treat in the firſt place of Trees, and lay before mens faces the life of the old world, and what was their behavior and demeanure at the firſt, in their manner of living.

Chap. I.

The honour done in old time to Trees. When the Plane-trees were firſt knowne in Italie, and of their nature.

IN old time, Trees were the very temples of the gods: and according to that auncient manner, the plaine and ſimple peaſants of the countrey, ſavouring ſtill of antiquitie, doe at this day conſecrate to one god or other, the goodlieſt & faireſt Trees that they can meet withall. And verily, we our ſelves adore not with more reverence and devotion the ſtately images of the gods within our temples, (made though they be of glittering gold, and beautifull yvorie) than the very groves and tufts of trees, wherein we worſhip the ſame gods in all religious ſilence. Firſt and formoſt, the auncient ceremonie of dedicating this and that kind of Tree to ſeverall gods, as proper and peculiar unto them, was alwaies obſerved, and continueth yet to this day. For the mightie great Oke named Æſculus, is conſecrated to *Iupiter*; the Lawrell to *Apollo*; the Olive tree to *Minerva*; the Myrtle to *Venus*; and the Poplar to *Hercules*. Moreover, it is received and beleeved generally, That the Sylvanes and Faunes, yea, and certaine goddeſſes, are appropriate and aſſigned to woods and forreſts; yea, there is attributed unto thoſe places a certaine divine power and godhead, there to inhabite: as well as unto heaven the proper ſeat for other gods and goddeſſes. Afterwards, in proceſſe of time men began to taſt alſo the fruit of Trees, & found therein a juice (without all compariſon) more lenitive & pleaſant to the contentment of their nature, than that which came of corne and graine: for thereof made they Oile, a ſingular liquor to refreſh and comfort the outward members and parts of the bodie: out of it they preſſed Wine, the onely drinke that giveth ſtrength within, and fortifieth the vitall powers. From thence gather we ſo many fruits, yearely growing and comming of themſelves without the labour and induſtrie of man. And albeit, to ſerve our bellie and pleaſe our tooth, we ſticke not to maintaine fight and deale in combat with wild beaſts in the forreſts; although we hazard our ſelves in the ſea, to meet with monſtrous fiſhes which are fed with the dead bodies of men caſt away by ſhipwracke; and all to furniſh and ſet out the table: yet is not the cheare thought good ynough, unleſſe fruits alſo be ſent up at the latter end, that they may have the honour in all feaſts of the ſecond ſervice, and the banket. Beſides all this, Trees ſerve our turnes for a thouſand neceſſarie uſes, without which our life could not be well maintained. With Trees we ſaile over ſeas into ſtraunge lands, and by tranſporting commodities and marchandiſe too and fro, we make lands meet together: of Trees we build our houſes wherein we dwell. Trees were the matter in times paſt, wherof were made the images of the gods. For as yet no man thought of the coſtly Anatomie of the Elephant, neither was their tooth in any account: whereas now adaies wee make the treſſels, frames, and feet of our tables, even of the ſame yvorie that we ſee the faces of gods are portraied of; as if we had our warrant from them to begin and maintaine our roiot and ſuperfluitie in this behalfe. We find in old Chronicles, That the Frenchmen or Gaules tooke occaſion firſt to come downe into Italie, and to overſpred the whole countrey (notwithſtanding they were beforetime debarred from thence by the impregnable fort, as it were, and the unpaſſable bulwarke of the Alpes between:) becauſe one *Elico*, a Swiſſer or Helvetian, who had made long abode at Rome (where he was entertained for his skill in Smiths worke and Carpentrie) at his return home again into his countrie, brought over with him drie Figs and Raiſons: the firſt fruits alſo as it were of Oile and Wine for a taſt, to ſet their teeth a watering. And therefore the French had good reaſon, and might well be borne withall and pardoned, for ſeeking to conquer even by force of armes thoſe countries where ſuch fruits grew. But who would not marvell rather at this, That our people here ſhould go into farre countries, and fetch a Tree from thence, even out of another world, only for the ſhade that it giveth?

veth? For ſurely, of fruitfull trees Italie hath ſtore ynough. And what tree ſhould that be, but the very Plane? brought firſt over the Ionian ſea into the Iſland Diomedea, for to beautifie the tomb of *Diomedes*. From thence tranſlated into Sicilie, and ſo beſtowed at length upon Italie, & there planted, as a moſt ſingular, rare, and ſpeciall tree. But now is it caried as far as Terwin and Tournay in Fraunce, where it is counted an appertenance to the very ſoile that paieth tribute: inſomuch, as people that will but walke and refreſh themſelves under the ſhaddow of it, muſt pay a cuſtome therefore unto the people of Rome. *Dionyſius* king of Sicilie, and the firſt of that name, cauſed them to be brought from Rhegium in Calabria to his roiall cittie, where his pallace was; onely of a ſingularitie, becauſe they ſhould be ſeen to give a ſhade before his houſe, where afterwards was made the Colledge or place of publick exerciſe. But theſe trees did not greatly like the ſoile, for they never grew big, nor proſpered to any purpoſe. Howbeit, I find in writers, that there were other beſides in Italie, and namely about Adria, as alſo in Spaine. And all this happened about the time that Rome was ſacked by the Gaules. But afterwards they came to be ſo highly eſteemed, that for to make them grow the better, men would be at the coſt to water them with wine: for this was found by experience, that nothing was ſo good for them as to poure wine to their roots. Thus have wee taught even our trees alſo to drinke wine, and be drunke. The Plane trees of any great name at firſt, were thoſe that grew in the walking place of the Academia in Athens; where the root of one outwent the boughs, 36 cubits in length. Now in this age there groweth a famous one in Lycia, neare unto the high way where men paſſe too & fro, & it hath a pleaſant cold fountain adjoining to it: the ſame is hollow within like to an houſe, & yeeldeth a cave of 81 foot in compaſſe: but it carieth ſuch an head withall like a grove, ſo large, ſo broad, & ſo branched, that every arm reſembleth one entire tree: inſomuch, as the ſhade therof taketh up & ſpreadeth a great way into the fields. And becauſe in every reſpect, it might reſemble a very cabbin and cave indeed, there are ſtonie bankes & ſeats within, in forme of an arbor round about, made as it were of pumiſh ſtone overgrown with moſſe. And in truth, this tree and the ſituation therof, is ſo admirable, that *Licinius Mutianus* thrice Conſull, and lately Lieutenant generall and governour of that province, thought this one thing worthie to be recorded as a memoriall to poſteritie, That he and eighteen more perſons of his companie, uſed to dine and ſup within the hollowneſſe of that tree: where the very leaves yeelded of the own ſufficient bed and bench-roume to reſt and repoſe themſelves: where they might ſit ſecured from daunger of wind to blow upon them: where whiles he ſat at meat, he wiſhed nothing more than the pleaſure to heare the ſhowers of raine to pat drop by drop, and rattle over his head upon the leaves: & finally, that he tooke much more delight to lie within the ſame cabbin, than in a ſtately chamber built of fine marble, all glorious within with hangings of tapiſtrie and needleworke, of ſundrie colours, and the ſame ſeeled over head with an embowed roofe laid with beaten gold. Moreover, *Caligula* the Emperor had ſuch another Plane tree growing in the countrey about Velitræ, moſt artificially: wherein he uſed to take great pleaſure, with admiration of the ſundrie lofts and plankes one over another, the large ſettles alſo and ſpacious branches that the boughs yeelded, where hee was wont to ſit at repaſt, making one of the fifteene gueſts. For the roume was of that capacitie, that it would receive not only ſo many to ſit with eaſe at the table, but alſo the gentlemen & ſervitors that waited and miniſtred unto them: and he tearmed this ſupping place by the name of, His neaſt: becauſe it ſeemed like a birds neſt in a tree. There is to be ſeene at Gortyna, within the Iſland Candie, one Plane-tree near unto a faire fountain: recorded it is as well by Greeks as Latines in their writings, and by the teſtimonie of them both, never ſheddeth the leaves, but remaineth alwaies greene, as well in Winter as Summer: by occaſion whereof aroſe the tale (ſo much given is Greece to deviſe fables by and by of every ſmall matter) That *Iupiter* under that tree defloured the young ladie *Europa*: as if (forſooth) there were no other Tree but it of the ſame kind and nature, in Cyprus. But (as the natute of man is evermore curious, and ſeeking after novelties) the Candiotes, deſirous to have of the ſame race within Creet, ſet many ſlips thereof in ſundrie places, as if they longed to have more ſuch vicious fruit (as is beforenamed:) for in very deed that Tree is in no one thing more commendable, than for excluding the heat of the Sunne in Summer, and admitting it in Winter. In the time of *Claudius Cæſar*, late Emperour, there was an enfranchiſed ſlave belonging to *Marcellus Eſerninus*, a daintie guelded Eunuch of Theſſalie, and exceeding rich, who cauſed certaine Plane trees to be brought out of Candie into Italie, for to plant them at a manor which hee had in the territorie neare to Rome. This freed Eunuch for to grow into

more

more power and favor with *Cæſar*, had engraffed himſelfe, as adopted among his freed-men: and ſurely for his wealth might well be called *Dionyſius*, who was the firſt that tranſplanted theſe kind of trees. Thus you ſee, that over and above thoſe monſtruoſities which Italie hath deviſed of it ſelfe, wee have remaining and reigning among us thoſe alſo of ſtraunge and forraine nations abroad in the world.

Chap. II.

Of the low or dwarfe Plane-tree. And who firſt deviſed to clip and ſhred Arbours.

AS big as theſe Plane trees are, yet there be thoſe of a forced ſmalnes to the other, called Chamæplatani: whereby a man may perceive, that we have invented the meanes to have abortive trees alſo; even to hinder their growth, that they cannot come to their full perfection. And therefore even in trees as well as in other living creatures, there is a certaine infelicitie, which may well be tearmed, A dwarfiſh untowardneſſe. This ſmalneſſe in trees may come, by the manner of planting them, as well as by cutting and keeping them downe. The firſt man that deviſed to ſhred and cut arbours, was one *Cn. Martius*, a gentleman of Rome, and a favourer of the Emperour *Auguſtus*: and this invention hath not been knowne above 80 yeeres.

Chap. III.

Of Trees that be ſtraungers in Italie: and namely, of the Citron or Limon tree.

CHerrie-trees, Peach-trees, and generally all that either have Greeke names or any other but Latine, are held for aliens in Italie. Howbeit ſome of them now are enfranchiſed and taken for free-denizens among us: ſo familiar they be made unto us, and they like the ground ſo well. But of them, we will ſpeake in the ranke of thoſe trees that beare fruit. For this preſent, we are to treat of thoſe that be meere forrainers: and for good lucke ſake, begin wee will with that, which of all others is moſt holeſome; to wit, the Citron tree, called the Aſſyrian tree; and by ſome, the Median Apple-tree: the fruit whereof is a countrepoiſon and ſingular Antidote againſt all venome. The tree it ſelfe, beareth a leafe like unto an Arbut tree; mary it hath certaine pricks among. The Pomecitron is not ſo good to be chewed and eaten of it ſelfe: howbeit very odoriferous it is: as be the leaves alſo thereof, which are uſed to be laid in wardrobes among apparell; for the ſmell thereof will paſſe into the clothes, and preſerve them from the moth, ſpider, and ſuch like vermine. This tree beareth fruit at all times of the yeere: for when ſome fall for ripeneſſe, others wax mellow; and ſome againe, begin then but to ſhew their bloſſome. Many forainers have aſſaied to tranſplant them, and ſet them in their own countries, in regard of their excellent vertue to reſiſt poiſons. And for this purpoſe they have caried yong quickſets, or plants of them, in earthen pots made for the purpoſe, and encloſed them well with earth: howbeit the roots had libertie given them to breath (as it were) at certaine holes for the nones, becauſe they ſhould not bee clunged and pent in priſon. Which I rather note, becauſe I would have it knowne once for all, and well remembred, That all plants which are to be remooved and carried farre off, muſt be ſet very cloſe, and uſed in the ſame order moſt preciſely. But for all the care and pains taken about it, for to make it grow in other countries, yet would it not forget Media and Perſia, nor like in any other ſoile, but ſoon die. This is that fruit, the kernels whereof (as I ſaid before) the lords and great men of Parthia uſe to ſeeth with their meat, for to correct their foure and ſtinking breaths. And verily there is not a tree in all Media, of better reſpect than is the Citron tree. As for thoſe trees in the region of the Seres (which beare the ſilke woll or cotton) we have ſpoken thereof in our Coſmographie, when we made mention of that nation.

Chap. IIII.

Of Indian Trees: and when the Ebene was firſt knowne at Rome.

IN like manner, diſcourſed we have of the talneſſe and greatneſſe of Indian trees. Of all thoſe trees which be appropriate to India, *Virgill* hath highly commended the Ebene above the reſt;

reſt: and hee affirmeth, That it will not grow elſewhere. But *Herodotus* aſſigneth it rather to Æthiopia; and ſaith, That every three yeares the Æthiopians were wont to pay by way of tribute unto the kings of Perſia, * 100 billets of the timber of that tree, togither with gold and yvorie. Moreover, I muſt not forget (ſince that mine author hath ſo expreſſely ſet it downe) that the Æthiopians in the ſame regard were bound to pay in like manner, twentie great and maſſie Elephants teeth. In ſuch eſtimation was Ivorie then, namely in the 310 yeere after the foundation of Rome; at what time as *Herodotus* put forth that Hiſtorie at Thurij in Italy. The more mervaile it is, that we give ſo much credit to that writer, ſaying as hee doth, How that in his time and before, there was no man knowne in Aſia or Greece, nor yet to himſelfe, who had not ſo much as ſeene the river Po. The Card or Map of Æthiopia, which lately was preſented and ſhewed to the Emperor *Nero* (as we have before ſaid) doth ſufficiently teſtifie, That from Syene (which confineth and boundeth the lands of our Empire and dominion) as farre as to the Iland Meroe, for the ſpace of 996 miles, there is little Ebene found: and that in all thoſe parts betweene, there be few other trees to be found, but Date trees. Which peradventure may be a cauſe, That Ebene was counted a rich tribute, and deſerved the third place, after Gold and Ivorie. Certes, *Pompey* the Great, in that ſolemnitie of triumph for the victorie and conqueſt of *Mithridates*, ſhewed one Ebene tree. *Fabianus* is of opinion, that it will not burne: howbeit, experience ſheweth the contrarie, for take fire it will, yea and caſt a pleaſant and ſweet perfume. Two kinds there be of Ebene: the one, which as it is the better, ſo likewiſe it is rare and geaſon; it carrieth a trunke like another tree, without knot; the wood thereof is blacke and ſhining; and at the very firſt ſight, faire and pleaſant to the eye, without any art or poliſhing at all. The other, is more like a ſhrub, and putteth foorth twigs as the Tretrifolie. A plant this is, commonly to be ſeene in all parts of India.

* 200.

Chap. V.

Of certaine Thornes and Fig-trees of India.

THere groweth alſo among the Indians, a Thorne reſembling the latter kind of Ebene; and found to ſerve for the uſe of candles: for no ſooner commeth it neare unto the fire, but it catcheth a flame, and the fire leapeth preſently unto it. Now it remaineth to ſpeak of thoſe trees, which ſet *Alexander* the Great into a wonder at what time as upon his victorie hee made a voiage for to diſcover that part of the world. Firſt and formoſt, there is a Fig-tree there, which beareth very ſmall and ſlender figges. The propertie of this Tree, is to plant and ſet it ſelfe without mans helpe. For it ſpreadeth out with mightie armes, and the loweſt water-boughes underneath, doe bend ſo downeward to the very earth, that they touch it againe, and lie upon it: whereby, within one yeares ſpace they will take faſt root in the ground, and put foorth a new Spring round about the Mother-tree: ſo as theſe braunches thus growing, ſeeme like a traile or border of arbours moſt curiouſly and artificially made. Within theſe bowers the ſheepheards uſe to repoſe and take up their harbour in Summer time: for ſhadie and coole it is, and beſides well fenced all about with a ſet of young trees in manner of a pallaiſado. A moſt pleaſant and delectable ſight, whether a man either come neare, and looke into it, or ſtand a farre off: ſo faire and pleaſant an arbour it is, all greene, and framed arch-wiſe in juſt compaſſe. Now the upper boughes thereof ſtand up on high, and beare a goodly tuft and head aloft like a little thicke wood or forreſt. And the bodie or trunke of the Mother is ſo great, that many of them take up in compaſſe threeſcore paces: and as for the foreſaid ſhaddow, it covereth in ground a quarter of a mile. The leaves of this Tree are very broad, made in forme of an Amazonian or Turkiſh Targuet: which is the reaſon, that the figges thereof are but ſmall; conſidering, that the leafe covereth it, and ſuffereth it not to grow unto the full. Neither doe they hang thicke upon the tree, but here and there very thin, and none of them bigger than a beane. Howbeit, ſo well and throughly ripened they bee with the heat of the Sunne, notwithſtanding the leaves are betweene, that they yeeld a moſt pleaſant and ſweet rellice in taſt, and are a fruit for a king, anſwerable to the mightie, huge, and prodigious tree that beareth it. Theſe fig-trees grow abundantly about the river Aceſine.

Chap.

Chap. vi.

Of the tree named Pala: of other Indian trees, whereof the names be unknowne. Alſo of thoſe that beare Wooll or Cotton.

ANother tree there is in India, greater yet than the former, bearing a fruit much fairer, bigger, and ſweeter than the figs aforeſaid; and wherof the Indian Sages and Philoſophers do ordinarily live. The leafe reſembleh birds wings, carrying three cubits in length, and two in bredth. The fruit it putteth forth at the bark, having within it a wonderfull pleaſant juice: inſomuch as one of them is ſufficient to give four men a competent & full refection. The trees name is Pala, and the fruit thereof is called Ariena. Great plentie of them is in the country of the Sydraci, the utmoſt limit of *Alexander* the Great his expeditions and voiages. And yet is there another tree much like to this, and beareth a fruit more delectable than this Ariena, howbeit the guts in a mans belly it wringeth, and breeds the bloudie flix. Whereupon *Alexander* made open proclamation and ſtreightly forbad, That no man ſhould taſt thereof. As for the Macedonian ſouldiers, they talked much of many other trees, but they deſcribed them in generall tearmes only, and to the moſt of them they gave no names at all. For one tree there is beſides, in other reſpects reſembling the Terebinth, and it carrieth a fruit much like to Almonds; only it is leſſe, but of a moſt ſweet and toothſome taſt. In Bactriana verily, ſome take it to be a ſpeciall kind of the Terebinth indeed, rather than a tree like unto it. But that tree which carrieth a fine flaxe, whereof they make their daintie linnen and lawne, it hath leaves like to thoſe of a mulberrie tree, and beareth a red berrie like to the hips of an Eglantine. They plant and ſet theſe in their fields and plaines: and ſurely, ſtanding as they doe in ſuch order, there are no rowes of any trees that yeeld a fairer ſight and proſpect. The Olive tree of India is but barren, ſave that it bringeth a fruit much like the wild Olive.

Chap. vii.

Of Pepper trees: of the Clove tree, and many other.

THe trees that beare Pepper every where in thoſe parts, be like unto our Iuniper trees. And yet ſome have written, That they grow onely upon the front of the hill Caucaſus on that ſide which lieth full upon the Sunne. The cornes or graines that hang thereupon, differ from Iuniper berries: and thoſe lie in certaine little huskes or cods like to the pulſe called Faſels or Kidney beanes. If that be plucked from the tree before they gape and open of themſelves, they make that ſpice which is called Long pepper: but if as they do ripen, they cleave & chawne by little and little, they ſhew within, the white pepper: which afterwards being parched in the Sunne, chaungeth colour and waxeth blacke, and therewith riveled alſo. Peppers be ſubject to the injurie of the weather as well as other fruits: for if the ſeaſon be unkindly and untemperate, they will catch a blaſt, and then the ſeeds will be deafe, void, light, and naught. This fault is called among the Indians, Brechmaſis, which in their language ſignifieth, an abortive or untimely fruit. This pepper of all other kinds is moſt biting and ſharpe, but it is the lighteſt, and pale of colour withall. The blacke is more kindly and pleaſant: and the white is more mild in the mouth than both the other. Many have taken Ginger (which ſome call Zimbiperi, & others Zingiberi) for the root of that tree: but it is not ſo, although in taſt it ſomewhat reſembleth pepper. For Ginger groweth in Arabia and Troglodytica in medows about the villages: and it is a white root of a certaine little herb. And howſoever it be very bitter and biting, yet it quickly meeteth with a worme, and rotteth. A pound of Ginger is commonly ſold at Rome for ſix deniers. Long pepper is ſoone ſophiſticated, with the Senvie or muſtard-ſeed of Alexandria: and a pound of it is worth fifteen Romane deniers. The white coſteth ſeven deniers a pound, and the blacke is ſold after foure deniers by the pound. As for Pepper, I wonder greatly that it ſhould be ſo much in requeſt as it is: For whereas ſome fruits are ſweet and pleaſant in taſt, and therefore deſired; others beautifull to the eye, and in that regard draw chapmen: pepper hath neither the one nor the other. A fruit or berrie it is (call it whether you will) neither acceptable to the tongue nor delectable to the eye: and yet for the biting bitternes that it hath, we are pleaſed therewith, and we muſt have it fet forſooth from as farre as India. What was he, gladly would I know, that ventured

tured first to bite of pepper and use it in his meats? Who might he be, that to provoke his appetite and find himselfe a good stomacke, could not make a shift with fasting and hunger onely? Surely Ginger and Pepper both, grow wild in those countries where they doe like, and yet wee must buy them by weight, as we doe gold and silver. Of late daies here in Italie, wee have made meanes to have the Pepper tree grow among us: and verily a little scrubbie plant it is, or shrub rather; bigger somewhat than the Mirtle, and not farre unlike. The graine that ours beareth, carieth the very same bitternes that the greene pepper of India is thought to have before it be full ripe. For here it wanteth the due parching and ripening against the sunne: and by that meanes commeth short of the rivels and blackneſſe that the outlandish pepper hath. Sophisticated it is, by entermingling with it the graines or berries of Iuniper: for surely, they doe marveilous soone take the tast and strength of Pepper. And as for the weight, there be divers wayes to deceive the chapman therein.

Over and besides, there is another fruit that commeth out of India, like unto pepper cornes, and it is called Cloves, but bigger somewhat and more brittle. And they say, that it groweth in a certaine grove consecrated to their gods in India. Transported over it is unto us for the sweet smell that it casteth.

Moreover, the Indians have a thornie and prickie plant, which beareth a fruit like to pepper, and passing bitter. The leaves bee small and grow thicke after the manner of Privet: it putteth forth braunches three cubits long: the barke is pale, the root broad and of a woodie substance, resembling the colour of boxe. Of the infusion of this root in faire water, togither with the seed, in a brasen vessell, is made that medicine or composition which is called Lycium. A bush there groweth likewise upon mount Pelion [like Pyxiacantha, *i.* the Berberrie bush] whereof is made a counterfeit Lycium. In like manner, the root of the Daffodill, with an Oxe gall, Wormwoot, Frankincense, and the mother or lees of Oile, will doe the same. But the best Lycium and most medicinable, is that which doth yeeld a great froth or scum. The Indian merchants doe send it over in bags made of the skins either of Camels or Rhinocerotes. In some parts of Greece they name the very bush whereof this Lycium is made, Pyxacanthum Chironium.

Chap. viii.

Of Macir, Sugar, and the trees of the region Ariana.

THe Macir likewise is brought out of India. A reddish barke or rind it is, of a great root; and beareth the name of the tree it selfe: but the forme of that tree I know not how to describe. This rind sodden in hony, & so condit as a Succade, is a singular good medicine for those that be troubled with the Dysenterie or bloudie flix. As for Sugar, there is of it in Arabia; but the best commeth out of India. * A kind of honey it is, gathered and candied in certaine canes: white this is like gum [Arabicke] and brittle betweene a mans teeth. The graines hereof when they are at the biggest, exceed not a filberd nut, and serve only for Physick. In the realme of Ariana (which confineth and boundeth upon the Indians) there is a certaine thornie plant, so full of sharpe pricks, that it is comberous to them who come about it; which yeeldeth a pretious liquor issuing out thereof, like unto Myrrhe. In the same province there groweth a pestilent venomous shrub called Rhaphanus, bearing leaves like the Bay tree, which with their fragrant smell traine horses thither to eat thereof; but they are so good for them, that they left not *Alexander* the Great scarse one horse of all his Cavallerie, they dyed so fast of that food at his first entrance into the countrey. The like accident befell unto him also among the Gedrosians. In like manner, there is another thornie plant (by report) in that region, leaved like the Laurell: the juice and liquor whereof, if it be sprinkled or dashed in the eyes of any living creature whatsoever, putteth them quite out and makes them blind. Moreover, they have an herb there, of a singular pleasant savor, but covered all over it is with litle venomous serpents: their sting is present death. *Onesicritus* reporteth, That in the vales of Hircania there be trees like figtrees, which the Hircanians call Occhi, out of which there distilleth or droppeth hony every morning for the space of two hours.

*White Sugar candie.

Chap. ix. *Of Bdellium: and the trees growing by the Persian guise.*

NEare to these parts lyeth Bactriana, wherein is the most excellent Bdellium. The tree that beareth it is blacke, of the bignes of an Olive, with leaves like an Oke; and the fruit resembleth

bleth wild figs, and is of the ſame nature. The gum thereof, ſome call Brochos; others, Malachra: and there be againe that name it Maldacon. Howbeit, when it is blacke, and brought into roles or lumpes, they give it another name, and call it Hadrobolon. But indeed the right Bdellium when it is in the kind, ſhould be cleare, as yellow as waxe, pleaſant to ſmell unto, in the rubbing and handling fattie, in taſt bitter and nothing ſoure. Being waſhed and drenched with wine (as they uſe it in ſacrifices) it is more odoriferous. There is found of it in Arabia, India, Media, and Babylon. As for that which is brought out of Media, they call it Peraticum: this is more tractable and gentle in hand, more cruſtie and bitter than the reſt. But the Indian Bdellium is the moiſter and more gummie: this is ſophiſticated with Almonds, whereas the other kinds be made counterfeit with the barke of Scordaſtus, a tree that yeeldeth the like gum. But this trumperie and deceit is found by the ſmell, colour, weight, taſt, and fire. And let this one word for all, ſerve as a generall rule to proove all ſuch drugs and ſpices by. The Bactrian Bdellium when it is in the fire, yeeldeth a drie and ſmokie fume, and hath many white markes in it reſembling the nailes of ones fingers: beſides, it hath his juſt poiſe and weight that it ought to have, neither more nor leſſe; for as it ſhould not be over weightie, ſo it may be too light. Commonly the price goeth after this rate, to wit, three deniers a pound.

Vpon theſe regions above-named, confineth Perſis, whereas the red ſea (which we named in our Geographie, the Perſian gulfe) floweth at certaine tides far into the land, and in theſe ſands and downes are to be ſeene divers trees of ſtraunge natures: for when the tide is paſt, you ſhall ſee at a low water ſome trees with their roots bare, as if they were eaten with the ſalt water; and a man cannot tell whether they were brought thither with the tide, or left in the ebbe: but ſurely the naked roots ſeeme to claſpe and take hold of the barren ſands, as if they were Polype fiſhes ſhould cling to any thing. And yet the ſame, when the ſea floweth againe, notwithſtanding they be beaten upon with the waves, ſtand faſt and ſtirre not. Againe, at ſome high water and ſpring-tide, they be covered all over with water: and by good arguments it is evident to the eye, That nouriſhed they be with the roughneſſe of the ſurging ſea-water. Their heights is wonderfull: and faſhioned they be in forme of an Arbut tree: the fruit without-forth like to Almonds, but the kernels within be writhed.

Chap. X.

The trees of the Iland Tyles within the Perſian ſea. Moreover, of thoſe trees that beare Woll or Cotton.

WIthin the ſame gulfe of Perſia, there lyeth an Iland full of woods to the Eaſt ſide, even upon that coaſt which is overflowed with the tide. Every tree within, is equal in bignes to the figtree: the bloſſomes that they carrie, are ſo ſweet, as it is wonderfull and unſpeakeable: the fruit like a Lupine, yet ſo rough and prickly, as no beaſt will gladly touch it. In the higheſt part and knap of the ſame Iland, there be trees bearing Wooll, but not in ſuch ſort as thoſe of the Seres: for whereas the leaves of thoſe doe carrie a downe or cotton, theſe are altogither without and barren thereof: and but that they be ſomewhat leſſe, they might ſeeme to be vine leaves. Howbeit they beare a fruit at the laſt, like Gourds in faſhion, and as big as Quinces: which when they be full ripe, doe open and ſhew certaine balls within of downe: whereof they make moſt fine and coſtly linnen clothes.

Chap. XI.

Of the Goſſampine trees: as alſo of other Cotton or Bombaſe trees, whereof clothes be made. In what manner divers trees do yeeld their fruit.

THere is a leſſer Iland named Tylos, ten miles from the other, where be trees called Goſſampines, which yeeld more cotton than thoſe in the greater. King *Iuba* ſaith, that this Cotton groweth about the braunches of the ſaid trees, and that the linnens made thereof be farre better than thoſe of the Indians. As for thoſe trees in Arabia whereof they make their linnen cloth, he affirmeth that they be called Cynæ, and have leaves like the Date tree. Thus you ſee, how the Indians be clad with trees of their own. In thoſe Ilands called Tyli, there is another tree which beareth a bloſſome much like the flower of a white Violet, or Scock-gillofre, but four times

as big, which may ſeeme ſtraunge in that tract. And yet there is another Tree not unlike to it, howbeit fuller of leaves, and bearing a bloſſome like to a damaske or incarnate roſe. This flower ſhutteth cloſe in the night, beginneth to open in the morning at the Sun-riſing, and by noone ſheweth out at the full. The inhabitants have a by-word and ſaying among them, That it ſleepes all night, and wakes in the morning. The ſame Iſland bringeth foorth Date trees, Olive trees, Vines, and among other fruits, Figges alſo. No trees there, doe ſhed their leaves: for the Iſland is well watered with cold and quicke ſprings: and beſides it hath the benefite of raine. As touching Arabia, which lyeth neere and bordereth upon theſe Iſlands, the ſpices and odoriferous fruits that be therein, are to be treated of with diſtinction: for their merchandiſe doth conſiſt of roots, braunches, barke, juice or liquor, gums and roſins, wood, twigs, flowers, leaves, and apple.

Chap. xii.

Of Coſtus, Spike-nard, and the divers kinds of Nard.

BVt the root and leafe be of greateſt price in India. And firſt and formoſt the root of Coſtus, biteth and burneth in the mouth; and is of a moſt excellent and ſoveraign ſmell: for otherwiſe the braunches or bodie of the ſhrub is good for little or nothing. In the Iland Patale (which lyeth at the verie firſt foſſe and mouth where the river Indus falleth into the ſea) there be found two kinds thereof: namely, the black; and the white, which is counted the better. A pound of Coſtus is held at ſixteen Romane deniers.

As touching the leafe of Nardus, it were good that wee diſcourſed thereof at large, ſeeing that it is one of the principall ingredients aromaticall that goe to the making of moſt coſtly and precious ointments. The plant it ſelfe Nardus hath a maſſie, heavie, and thicke root; but ſhort, blacke, and brittle, notwithſtanding that it be fattie and oleous. Soone it vinoweth and catcheth a kind of muſtines; and like unto the *Cypreſſe it hath a ſharpe taſt, rough and ſmall leaves, but comming thicke. The head of Nardus ſpreadeth into certaine ſpikes or eares, whereby it hath a twofold uſe, both of ſpike and alſo of leafe; in which regard it is ſo famous. A ſecond ſort there is of it growing along the river Ganges, condemned altogither as good for nothing, for it hath a ſtrong and ſtinking ſavour; whereupon it is called Ozænitis. There is an hearb growing every where called Pſeudonardus, or baſtard Nard, which is obtruded unto us and ſold for the true Spikenard. A thicker leafe it hath and a broader than the other: the colour is more pallat and weake, inclining to white. Alſo the very root of the right Nard, for to make the better weight, is mingled with gums, with Litharge of ſilver, Antimonie, or the rind of Cyperus. But the good, ſyncere, and true Nard is known by the lightnes, red colour, ſweet ſmell, and the taſt eſpecially: for it drieth the tongue and leaveth a pleaſant relliſh behind it. The Spike carrieth the price of an hundred Romane deniers a pound. As touching the leaves, the diverſitie thereof maketh difference alſo in the price: for that which hath the larger leaves, and thereupon is called Hadroſphærum, is worth thirtie deniers a pound. A ſecond ſort there is with a ſmaller leafe, and of a middle ſize, named therefore Meſoſphærum: and that is bought after ſixtie deniers the pound. But the beſt of all is that with leaſt leaves, and carrieth the name of Microſphærum: and that the merchant ſelleth for 75 deniers the pound. What kind ſoever it be, the greener and newer it is, the better is it reputed, and more odoriferous, than that which hath been long kept. Yet ſay it be old gathered, if the colour hold and keepe well, men preferre it before the blacker, though it be new. With us in Italie, and in this part of the world, the leafe of Nardus comming from Syria, is eſteemed beſt: next unto it the Celticke, out of Fraunce; and in the third place that of Candie, which ſome name Agrion, [i. the wild] others Phu: and this hath a leafe reſembling Loveach or Aleſanders; a ſtalke a cubit long, full of joynts and knots, of a weake whitiſh & light purple colour; the root groweth crooked, full of ſtrings and haires hanging to it, and is much like to birds clawes or feet. As for Baccharis, it is called likewiſe Ruſtick-nard: but of it will wee ſpeake among other flowers. All theſe kinds of Nardus are to be reckoned hearbs, ſave that only of the Indians: of which, the Celticke or French Nard, is plucked and gathered togither with the root: and for the better preparing thereof, it ought to be well waſhed and ſoked in wine, and ſo dried in the ſhade out of the ſunne. Then is it made up into certaine bundels of an handfull apeece, bound up in papers, & differeth not much in goodnes from the Indian Spikenard: howbeit

* or, Cyperus.

beit, lighter it is than that of Syria. A pound of it is worth at Rome thirteene deniers. The onely proofe and triall of all their leaves is this, That they bee not brittle, and rather ripe drie, than fere or rotten-drie, That they breake not and fall in peeces. With the Celticke or French Nard there evermore groweth another hearbe, called Hirculus, and it taketh that name of a ſtrong and Goatiſh ſmell which it yeeldeth: beſides, ſo like it is unto the other, that it is foiſted in amongſt the good, and ſo ſold with it. Yet herein is the difference; for that this hath no ſtemme or ſtalke at all; the leaves thereof alſo are leſſe: and laſt of all, the root is neither bitter in taſt, nor ſweet in ſmell.

Chap. XIII.

Of Aſara-Bacca, Amomum, Amomis, and Cardamomum.

ASarum or Fole-foot, called otherwiſe, Aſara-Bacca, hath the verie properties and vertues of Nard: and therefore ſome have called it Wild Nard. An hearbe it is, carrying leaves like to yvie, ſave that they bee more round and ſofter: it putteth foorth a purple flower, and hath a root like unto the French Nard. The flower is full within of ſeeds like grape kernels, of an hote taſt, and reſembling wine. In ſhadowie mountaines it floureth twice a yeare. The beſt groweth in Pontus, the next to it for goodneſſe is found in Phrygia: that of Illyricum is of a third ranke. The root is digged up when it beginneth to put forth leaves. They uſe to drie it in the Sunne: ſoone it will vennow and be mouldie; quickly alſo it waxeth old, and looſeth the ſtrength. Of late daies there was an hearbe found in Thracia, the leaves whereof differ in nothing from the Indian Nard.

As for the grape of Amomum, which now is in uſe and much occupied, ſome ſay it groweth upon a wild vine in India. Others have thought, that it commeth from a ſhrub like Myrtle, and carieth not above a hand breadth, or foure inches in height. Plucked it is together with the root: and gently muſt it be laid and couched in bunches by handfuls, for if great heed bee not taken, it will ſoone burſt and breake. The beſt Amomum and moſt commendable, is that which carrieth leaves like to thoſe of the Pomgranate, without rivels and wrinckles, and beſides, of a red colour. The next in goodneſſe is that which is pale. The greene or graſſe coloured is not all out ſo good, but the worſt of all is white: and that colour commeth by age, and long keeping. A pound of theſe grapes entire and whole in the cluſter, is worth threeſcore Romane deniers. But if they bee crumbled and broken, it will coſt but eight and fortie. This Amomum groweth likewiſe in a part of Armenia named Otene: alſo, in the kingdomes of Media and Pontus. It is ſophiſticated with the leaves of the Pomgranate, and with ſome other liquid gum beſides, that it may hang united together, and roll round into the forme of grapes.

Now as touching that which is called Amomis, it is leſſe full of veines, and nothing ſo ſweet ſmelling: but harder than Amomum: wherby it appeareth, that it is either a divers plant from it, or els if it be the ſame, it is gathered before it be full ripe.

Cardamomum is like to theſe above rehearſed, both in name, and alſo in making and forme: but it beareth a longer graine for ſeed. The manner alſo of gathering and cutting it downe, in Arabia, is the ſame. Foure kinds there be of it. The firſt is moſt greene and fattie withall: having foure ſharpe corners, and if a man rub it betweene his fingers, he ſhall find it very tough & ſtubborne: and this is moſt eſteemed of all the other. The next to it is ſomewhat reddiſh, but enclining to a whitiſh colour. A third ſort is ſhorter, leſſer, and blacker than the reſt. Howbeit, the worſt is that which hath ſundrie colours, is pliable and gentle in the rubbing, and ſmelleth but a little. The true Cardamomum ought to come near in reſemblance to Coſtus. And it groweth in Media. A pound of the beſt will coſt twelve deniers.

The great affinitie or kinred rather in name, that Cinnamon hath with theſe ſpices before rehearſed, might induce me to write thereof in one ſuit, even in this place: but that more meet it is to ſhew firſt the riches of Arabia, and to ſet downe the cauſes why that countrie ſhould be ſurnamed Happie and Bleſſed. We will begin therefore with the cheefe commodities therof, namely, Frankincenſe and Myrrhe: and yet Myrrhe is found as well in the Troglodites countrey, as in Arabia.

Chap. xiiii.

Of Happie Arabia, that yeeldeth plentie of Frankincense.

THere is no region in the whole world that bringeth forth Frankincense, but Arabia: and yet is it not to be found in all parts thereof: but in that quarter onely of the Atramites. Now these Atramites inhabite the very heart of Arabia, and are a countie of the Sabæi. The capitall citie of the whole kingdome is called Sabota, seated upon an high mountain: from whence unto Saba, the only countrey that yeeldeth such plentie of the said incense, it is about eight daies journey. As for Saba, (which in the Greeke tongue signifieth, a secret mysterie) it regardeth the Sunne rising in Summer, or the Northeast; enclosed on every side with rockes inaccessible: and on the right hand it is defended with high cliffes and crags that beare into the sea. The soile of this territorie (by report) is reddish and inclining to white. The forrests that carie these Incense trees, lie in length twentie Schænes, and beare in breadth halfe as much. Now that which we call Schænus, according to the calculation of *Eratosthenes*, containeth fortie stadia, that is to say, five miles: howsoever some have allowed but two and thirtie stadia to every Schænus. The quarter wherein these trees doe grow, is full of high hils: howbeit, goe downe into the plaines and vallie beneath, yee shall have plentie of the same trees, which come up of their owne accord, and were never planted. The earth is fat, and standeth much upon a strong clay, as all writers do agree. Few Springs are there to be found, and those that be, are full of Nitre. There is another tract by it selfe confronting this countrey, wherein the Minæans doe inhabite: and through them there is a narrow passage, by which the frankincense is transported into other parts. These were their first neighbours that did trafficke with them for their incense, and found a vent for it: and even so they doe still at this day, whereupon the Frankincense it selfe is called of their name, Minæum. Setting this people of the Sabeans aside, there be no Arabians that see an Incense Tree from one end of the yeare to another: neither are all these permitted to have a sight of those Trees. For the common voice is, that there bee not above three thousand families which can claime and challenge by right of succession that priviledge, to gather Incense. And therefore all the race of them is called Sacred and Holy: for looke when they goe about either cutting and slitting the trees, or gathering the Incense, they must not that day come near a woman to know her carnally; nay they must not be at any funerals, or approch a dead corps, for being polluted. By which religion, and ceremonious observation, the price is raised, and the Incense is the dearer. Some say, that these people have equall libertie in commune, to goe into these woods for their commodities when they will: but others affirme, that they be divided into companies, and take their turns by yeares. As concerning the very Tree, I could never know yet the perfect description of it. We have maintained wars in Arabia, and the Romane armie hath entred a great way into that countrey. *C. Cæsar*, the adopted sonne of *Augustus*, wan great honour and glorie from thence: and yet verily, to my knowledge, there was never any Latine Author, that hath put downe in writing the forme and fashion of that Tree which carieth Incense. As for the Greeke writers, their bookes doe varie and differ in that point. Some give out, that it hath leaves like to a Peare-tree, only they be somewhat lesse: and when they come forth, they be of a grasse-greene colour. Others say that they resemble the Lentiske Tree, and are somewhat reddish. There bee againe who write, that it is the very Terebints, and none else, that giveth the Frankincense: of which opinion king *Antigonus* was, who had one of these shrubs brought unto him. King *Iuba* in those bookes which hee wrate and sent unto *C. Cæsar*, sonne to the Emperour *Augustus* (who was enflamed with an ardent desire to make a voiage into Arabia, for the great name which went thereof) saith, That the Tree which beareth Frankincense, hath a trunke or bodie writhen about, and putteth forth boughs and branches, like for all the world to the Maple of Pontus. *Item*, that it yeeldeth a juice or liquor, as doth the Almond tree: and such are seen commonly in Carmania: as also those in Ægypt which were planted by the carefull industrie of the *Ptolomees*, kings there. How ever it be, this is received for certaine, that it hath the very barke of a Bay tree: Some also have said, that the leaves be as like. And verily, such kind of Trees were they which were seene at Sardis: for the kings of Asia likewise were at the cost and labour to transplant them, & desirous to have them grow in Lydia. The Embassadours who in my time came out of Arabia to Rome, have made all that was delivered as touching these Trees, more doubtfull and uncertaine than before. A straunge matter and wonderfull indeed, considering, that twigs and braunches of the Incense tree have passed betweene:

by

A by the veiw of which impes, we may judge what the Mother is: namely, even and round in the bodie, without knot or knar, and from thence ſhe putteth out ſhoots.

They uſed in old time to gather the Incenſe but once a yeare; as having little vent, and ſmall returne, and leſſe occaſion to ſell than now adaies: but now, ſince every man calleth for it, they feeling the ſweetneſſe of the gaine, make a double vintage (as it were) of it in one yeare. The firſt, and indeed the kindly ſeaſon, falleth about the hotteſt daies of the Summer, at what time as the Dog daies begin: for then they cut the Tree where they ſee the barke to be fulleſt of liquor, and whereas they perceive it to be thinneſt and ſtrut out moſt. They make a gaſh or ſlit onely to give more libertie: but nothing doe they pare or cut cleane away. The wound or inciſion is no ſooner made, but out there guſheth a fat ſome or froth: this ſoon congealeth and groweth to be hard:
B and where the place will give them leave, they receive it in a quilt or mat made of Date-tree twigs, plaited and wound one within another wicker-wiſe. For els where, the floore all about is paved ſmooth, and rammed downe hard. The former way is the better to gather the purer and clearer Frankincenſe: but that which falleth upon the bare ground, proveth the weightier. That which remaineth behind, and ſticketh to the Tree, is pared and ſcraped off with knives, or ſuch like yron tooles; and therefore no marvell if it be full of ſhavings of the barke. The whole wood or forreſt is devided into certaine portions: and every man knoweth his owne part: nay, there is not one of them will offer wrong unto another, and encroch upon his neighbours. They need not to ſet any keepers for to looke unto thoſe Trees that be cut, for no man will rob from his fellow if he might, ſo juſt and true they be in Arabia. But beleeve me, at Alexandria where Frankincenſe is tried, refined, and made for ſale, men cannot looke ſurely ynough to their ſhops and work-houſes, but they will be robbed. The workman that is emploied about it, is all naked, ſave that hee hath a paire of trouſes or breeches to cover his ſhame, and thoſe are ſowed up and ſealed too, for feare of thruſting any into them. Hood-winked he is ſure ynough for ſeeing the way too & fro, and hath a thicke coiſe or maske about his head, for doubt that hee ſhould beſtow any in mouth or eares.
C And when theſe workmen bee let foorth againe, they be ſtripped ſtarke naked, as ever they were borne, and ſent away. Whereby we may ſee, that the rigour of juſtice cannot ſtrike ſo great feare into our theeves here, and make us ſo ſecure to keepe our owne, as among the Sabæans, the bare reverence and religion of thoſe woods. But to returne againe to our former cuts. That Incenſe which was let out in Summer, they leave there under the Tree untill the Autumne, and then
D they come and gather it. And this is moſt pure, cleane, and white.

A ſecond Vintage or gathering, there is in the Spring: againſt which time, they cut the bark before in the Winter, and ſuffer it to run out untill the Spring. This commeth forth red, and is nothing comparable to the former. The better is called Carpheotum, the worſe, Dathiathum. Moreover, ſome ſay, that the gum which iſſueth out of young trees is the whiter: but that which commeth from the old, is more odoriferous. There be others alſo of opinion, That the better Incenſe is in the Iſlands. But king *Iuba* doth avouch conſtantly, that there is none at all in the Iſlands. That which is round like unto a drop, and ſo hangeth, we call the male Incenſe; whereas in other things lightly wee name no male, but where there is a female. But folke have a religious ceremonie in it, not to uſe ſo much as the tearme of the other ſexe, in giving denomination to Frankincenſe. Howbeit, ſome ſay, that it was called the Male, for a reſemblance that it hath to cullions or ſtones. In very truth, that is held for the cheeſe and beſt ſimply, which is faſhioned like to the nipples or teats that give milke, ſtanding thicke one by another: to wit, when the former drop that deſtilled, hath another preſently followeth after, and ſo conſequently more unto them, and they all ſeeme to hang together like wigs. I read, that every one of theſe were wont to make a good handfull, namely, when men were not ſo haſtie and eager to carie it away, but would give it time and leaſure to drop ſoftly. When it is gathered in this ſort, the Greekes uſe to call it Stagonias and Atomus: but the leſſer gobbets they name Orobias. As for the ſmall crums or fragments which fall off by ſhaking, we called Manna, [*i. Thuris.*] And yet there be found at this day drops of Incenſe that weigh the third part of a pound, that is to ſay, about *39 Romane de- *or rather 33, and a ſcruple.
niers. It happened on a time, that king *Alexander* the Great being then but a very child, made no ſpare of Incenſe, but caſt ſtill upon the altar without all meaſure when hee offered ſacrifice. Whereupon, *Leonides* his tutor and ſchoolemaiſter, by way of a light reproofe, ſaid unto him thus, Sir you ſhould in that manner burne Incenſe when you have once conquered thoſe nations where there groweth Incenſe. Which rebuke and checke of his tooke ſo deepe a print in *Alex-*

anders

anders heart,and ſo well he caried it in memorie,that after he had indeed made conqueſt of Arabia,he ſent unto the ſaid *Leonides* his Tutor,a ſhip full fraught and charged with Incenſe, willing him not to ſpare,but liberally to beſtow upon the gods when he ſacrificed. To returne again unto our hiſtorie. When the Incenſe is gathered (as is beforeſaid) conveighed it is to Sabota,upon Cammels backes,and at one gate (ſet open for that purpoſe) is it brought into the citie. For by law forbidden it is upon paine of death,to take any other way. Which done,the Prieſts there of the god whom they call *Sabis*, take the diſme or tenth part of the Incenſe, by meaſure, and not by weight,and ſet it apart for that god. Neither is it lawfull for any man to buy or ſell,before that dutie be paied: which ſerveth afterwards to ſupport certain publicke expenſes of the cittie. For all ſtrangers and travellers within the compaſſe of certaine daies journey,if they come to the citie,are courteouſly received,and liberally entertained at the coſt and charges of the ſaid god *Sabis*. Caried forth of the countrey it cannot be, but through the Gebanites: and therefore there is a cuſtome paied unto their king. The head citie of that kingdome,Thomna,is from Gaza (the next port-towne in Iudæa toward our coaſt) ſeven and twentie miles foureſcore times told: and this way is devided into threeſcore and two daies journies by Cammels. Moreover, beſides the tyth beforeſaid,there be certaine meaſures beſtowed upon the Prieſts to their owne uſe: & others likewiſe to the kings Secretaries and Scribes. And not onely theſe have a ſhare,but alſo the Keepers,Sextons,and Wardens of the temple,the Squires of the bodie,the Guard and Penſioners, the kings officers,the Porters,Groomes,and other ſervitours pill and poll,and every one hath a ſnatch. Moreover,all the way as they travell: in one place they pay for their water,in another for fodder and provender, or elſe for their lodging and ſtable-roume, and every where for one thing or other they pay toll: ſo as the charge of every Camell from thence to the ſea upon our coaſt, commeth to 688 deniers: and yet we are not come to an end of paiments. For our Publicanes and cuſtomers alſo belonging unto our Empire,muſt have a fleece for their parts. And therfore a pound of the beſt Incenſe will coſt 16 deniers: of the ſecond 15: and the third 14. With us it is mingled and ſophiſticated with parcels of a white kind of Roſin which is very like unto it: but the fraud is ſoone found,by the meanes above ſpecified. The beſt Incenſe is tried and knowne by theſe markes, *viz.* If it be white, large, brittle, and eaſie to take a flame when it comes neare a coale of fire; laſt of all, if it will not abide the dent of the tooth, but flie in peeces and crumble ſooner than ſuffer the teeth to enter into it.

Chap. xv.

Of Myrrhe,and the Trees that yeeld it.

SOme have written, That the Trees which beare the Myrrhe;doe grow confuſedly here and there in the ſame woods, among the Incenſe Trees: but more there are who affirme, That they grow apart by themſelves. And in truth,found they are in many quarters of Arabia,as ſhall be ſaid when we treat of the ſeverall ſpecies of Myrrhe. There is very good Myrrhe brought out of the Iſlands: and the Sabæans paſſe the ſeas,and travell as far as to the Troglodites countrey for it. There is a kind of Myrrhe tree planted by mans hand in Hort-yards, and much preferred it is before the wild that groweth in the woods. Theſe Trees love to bee raked, bared, and cleanſed about the rootes: they delight (I ſay) to have the ſuperfluous ſpurnes rid away from the root: and the more that the root is cooled, the better thriveth the Tree. The plant groweth ordinarily five cubites high, but not all that length is it ſmooth and without prickes: the bodie and trunke is hard and wrythen,thicker than the Incenſe trees: it is greateſt toward the root,and ſo ariſeth ſmaller and ſmaller,taperwiſe. Some ſay, that the barke is ſmooth and even, like unto that of the Arbute Tree: others againe affirme,that it is prickly and full of thornes. It hath a leaſe like to the Olive, but more criſped and curled, and withall it is in the end ſharpe-pointed like a needle. But king *Iuba* writeth,that it beareth the leaſe of Loveach or Aliſanders. There be who write,that it reſembleth the Iuniper,ſave onely that it is more rough and beſet with ſharp pricks. And ſome let not to dreame and talke, that both Myrrhe and alſo Incenſe came from one and the ſame Tree. Indeed,the Myrrhe trees are twice cut and launced in one yeare, and at the ſame ſeaſons, as well as the Incenſe trees: but the ſlit reacheth from the very root up to the boughes, if they may beare and abide it. Howbeit, before that inciſion be made,they ſweat out of themſelves a certaine liquor called Stacte,which is very good Myrrhe,and none better. As well of this

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franke & garden Myrrhe tree, as of the wild in the woods, the Myrrhe is better that is gathered or runneth in Summer time. There is no allowance of Myrrhe offered and given to the god *Sabis*, as there was of Incenſe, becauſe it is found in other countries. Howbeit, the king of the Gebanites hath paied unto him for toll and cuſtome, a fourth part of all that paſſeth through his kingdome. To conclude, whatſoever is bought in any market or place abroad, they put and thruſt it hard together in leather bags one with another: but the Druggiſts and Apothecaries can ſoone ſeparate the better from the worſe, and be very cunning and readie to digeſt them accordidg to the markes that they goe by, as well of ſmell as fattineſſe.

Chap. XVII.

Diverſe kinds of Myrrhe. The nature, vertue, and price thereof.

MAny ſorts there be of Myrrhe. Of all the wild kinds, the firſt is that which groweth in the Troglodites countrey. Next to it is Minæa, in which ranke you may place Attramittica and Auſaritis, which both come out of the realme of the Gebanites. In a third place reckon that which they call Dianitis. A fourth ſort is gotten here and there in all parts, and hudled together. In the fift raunge is Sembracena, ſo called of a citie within the kingdome of the Sabæans, and is next unto the ſea. The ſixt they name Duſaritis. Beſides all theſe, a white Myrrhe there is, found but in one place, which ordinarily is brought to the citie Meſſalum, & there ſold. The Trogloditike Myrrhe they chuſe by the fattineſſe thereof, and for that it ſeemeth to the eie greener: it ſheweth alſo foule, rude, and illfavoured: but ſharper it is, and more biting in mouth than the reſt. The Sembracene hath none of theſe faults, but is pleaſant and chearefull to ſee to: howbeit, of ſmall operation & ſtrength. But to ſpeake in a word, & once for all, the beſt Myrrhe is knowne by little peeces which are not round: and when they grow together, they yeeld a certaine whitiſh liquor which iſſueth and reſolveth from them, and if a man breake them into morſels, it hath white veines reſembling mens nailes, and in taſt is ſomewhat bitter. A ſecond degree there is in goodneſſe, when it ſheweth ſundrie colours within. And the worſt of all is that which within-forth is black; and the ſame is worſe yet, if it be as blacke without. As touching the price of Myrrhe, it altereth as it is more or leſſe in requeſt, and according as it meeteth with many or few chapmen. For yee ſhall have Stacte ſold ſometimes for ſixe deniers a pound, and otherwhiles for fiftie. The greateſt price of the garden frank-Myrrhe, or that which is ſet by mans hand, is two and twentie deniers. The red called Erythrea, is never above ſixteene: and this is taken to bee the true Myrrhe of Arabia. The kernell within of the Trogloditike Myrrhe, will coſt thirteen deniers the pound. But that which they call *Odoraria, is ſold for foureteen. All kinds of Myrrhe be mingled and ſophiſticated with peeces of Maſticke comming from the Lentiske, and with other gums: *Item*, with Elaterium, [*i.* the juice of the wild Cowcumber] to make it more bitter: as alſo (that it might ſeem weightier) with the ſome of lead, or litharge of ſilver. And ſurely ſetting aſide theſe two corruptions, all the reſt are found by the very taſt of the gum, which alſo will ſticke unto the teeth in the chewing. But the craftieſt & fineſt deviſe to counterfeit it, is with Indian Myrrhe, which is gathered there from a certaine thornie plant that groweth among them. This is the only thing that India bringeth forth worſe than other countries. And verily ſo bad it is, that ſoone it may bee knowne from other Myrrhes.

*or, *Adoraria*, *i.* συμπακλι, which ſerveth for perfuming in temples.

Chap. XVIII.

Of Maſticke, Ladanum, and Bruta of Enhæmus, Strobus, and Styrax.

FRom the foreſaid Myrrhe therefore laſt named, let us for the affinitie paſſe to Maſtick: which commeth alſo of another thornie tree in India, and likewiſe in Arabia, which they call Lama. Howbeit, of Maſticke there bee two ſorts: for both in Aſia, and alſo in Greece, there is found an hearb, which directly from the root putteth forth leaves: and it beareth a bur or thiſtle-head like an apple, full of ſeeds. Cut the top of this hearbe, and there will iſſue forth a certain liquor, ſo like unto the right & true Maſticke, that hardly a man ſhall know the one from the other. Over and beſides, there is a third ſort of Maſticke in Pontus, more like to Bitumen. Howbeit, the very beſt Maſticke is brought out of the Iſland Chios, and the ſame is white, and a pound of it is worth at Rome twentie deniers: but the blacke yee ſhall buy for twelve. As for the Chian Maſticke,

ſticke, it iſſueth forth as a gum out of the Lentiske tree. Mingled this is alſo, like as Frankincenſe, with Roſin.

Moreover, Arabia doth glorie even yet in their Ladanum. And many have reported, that this commeth by fortune or chaunce, and by occaſion of violence and wrong done to an odoriferous plant that yeeldeth it in this manner following. The Goats they ſay (harmefull creatures as they be to all plants, but more deſirous to be brouſing of ſweet and aromaticall ſhrubs, as if they knew how precious they were) uſe to crop the ſprouts and twigs of this plant which beareth Maſticke; which being ſo full of this odoriferous and ſweet liquor, that they ſwell againe, doe drop and diſtill the ſaid moiſture, which the ſhrewd & unhappie beaſt catcheth among the ſhag long haires of his beard. Now by reaſon of duſt getting among, it baltereth and cluttereth into knots and bals, and ſo is concocted into a certaine conſiſtence, in the Sunne. And hereupon it is, that in Ladanum are found Goats haires. But this happeneth by their ſaying, in no other place but among the Nabatæans in the frontiers of Arabia toward Syria. The later moderne writers call the plant which yeeldeth Ladanum, Strobos: and they affirme, That in the forreſts of Arabia where theſe doe grow, the boughes are much broken by the brouſing of theſe Goats, and ſo the juice and liquor ſticketh to their lockes and beards. But the true Ladanum (ſay they) is peculiar to the Iſland Cyprus (for, give me leave I pray you, to ſpeake by the way of every kind of ſpice and aromaticall drugs, and not ſtrictly to keepe and obſerve the order and conſequence of places where they be found.) And, by report, after the ſame manner as this Ladanum in Arabia, there hangeth and cleaveth to the beards and ſhag-haired legs and flankes of the Goats there alſo, a certaine greaſe and fattineſſe called Oeſypus: but, according to them, it muſt bee gotten, when they crop off the floures and leaves of the hearbe Ciſtus, in a morning for their breakfaſt, at what time as the Iſland Cyprus ſtandeth all with a dew. Now when the morning miſt is diſpatched by the heat of the Sunne, there gathereth duſt among theſe moiſt and wet haires of theirs, and ſticketh too: and then the Iſlanders come and comb from their beards and flankes, that which they call Ladanum. Some call that plant in Cyprus whereof it is made, Ledon: and in truth thereof it taketh the name of Ledanum, among them. For by their report this hearbe hath a fattie ſubſtance ſettling upon it, and the peaſants of the countrey roll the hearbes together into bals or rundles with ſmall cords, and ſo make up thoſe little lumpes which ye ſee. Whereby we may perceive, that as well in Arabia as Cyprus, there bee two kinds of Ladanum: the one mixed with earth, and naturall of it ſelfe: the other brought into bals and artificiall. The earthie is brittle and will crumble: the Artificiall is tough, clammie, and will cleave to ones fingers. Moreover, it is ſaid that there be certaine ſhrubs in Carmania that beare Ladanum, as alſo about Ægypt, by occaſion of plants thither brought by the *Ptolomæes*, kings of Ægypt: or, as ſome ſay, it is the Incenſe tree that bringeth it forth: and is gathered after the manner of a gum, iſſuing out of the tree by inciſion made in the barke, and is received in Goat skins. The beſt Ladanum is worth fortie Aſſes a pound. Sophiſticated it is with Myrtle berries, and with other filth of beaſts. The good Ladanum indeed, which is of it ſelfe without other mixture, ought to have a wild and ſavage ſmell with it, as if it came out of a wilderneſſe. Greeniſh it is, and drie to ſee to: but handle it never ſo little, and preſently it doth relent and waxe ſoft: ſet it on fire, and it burneth bright and cleare, and then it caſteth a ſweet and pleaſant odour. But all that is counterfeit and mixed with Myrtle berries, may ſoone be known, for they will crackle in the fire. Beſides, the true Ladanum hath rather ſtonie grit comming from the rockes, mingled with it, than duſt.

In Arabia, the Olive tree alſo hath a kind of liquor which iſſueth out of it: and thereof is compounded a certaine ſoveraigne ſalve, named of the Greekes Enhæmon, which is ſingular good to draw up wounds, and to heale them cleane. In the maritime parts and ſea-coaſts, the ſaid Olive trees at ſome tides are overflowed with the waves. Yet receive the Olive berries no hurt thereby: notwithſtanding it bee certaine, that the ſea doth leave ſalt upon the leaves. Thus you ſee what bee the peculiar commodities as touching trees, proper unto Arabia. True it is, that it hath others beſides: but becauſe they bee found elſewhere, and knowne to bee better in other places than in Arabia, I will treat of them in their courſe and ranke, when it commeth. And yet Arabia it ſelfe, as fruitfull and happie as it is in this behalfe, is wonderous eager to ſeeke after forraine ſpices, and ſend for them into ſtraunge countries. So ſoone are men glutted, and have their fill of their owne: and ſo greedie and deſirous be they of other countries commodities.

They

They ſend therefore as far as the Helymæans, for a tree named Bruta, like to a ſpreading Cypreſſe, having boughes covered with a whitiſh barke, caſting a pleaſant ſmelling perfume when it burneth, and highly commended in the chronicles and hiſtorie of *Claudius Cæſar* for ſtraunge vertues and wonderfull properties. For he writeth, That the Parthians uſe to put the leaves thereof in their drinke, for to give it a good taſt and odoriferous ſmell. The odour thereof reſembleth the Cædar very much: and the perfume is a ſingular remedie againſt the ſtinking and noiſome fumes of other wood. It groweth beyond the great channell of the river Tigris, called Paſitigris, upon the mount Zagtus neare unto the citie Citaca.

They ſend moreover to the Carmanians for another tree called Strobos, and all to make ſweet perfumes: but firſt they infuſe the wood thereof in Date-wine, and then burne it. This is an excellent perfume: for it will fill the whole houſe, riſing up to the chambers aloft to the arched ſeelings of the roufe, and returning downe againe to the very floore and ground beneath, moſt pleaſantly. But it ſtuffeth a mans head, howbeit without any paine or ach at all. With this perfume they procure ſleepe to ſick perſons. And for the traffick of this commoditie, the merchants meet at the citie Carras, where they keepe an ordinarie faire or mart; and from thence they went cuſtomably to Gabba, twentie daies journey off, where they were wont to have a vent for their merchandiſe, and to make returne: and ſo forward into Paleſtine of Syria. But afterwards (as K. *Iuba* ſaith) they began to goe to Charace, and to the kingdome of the Parthians, for the ſame purpoſe. For mine owne part, I thinke rather with *Herodotus*, That the Arabians tranſported theſe odours and ſpices to the Perſians firſt, before that they went therewith either into Syria or Ægypt: and I ground upon the teſtimony of *Herodotus*, who affirmeth, That the Arabians paid every yeare unto the KK. of Perſia the weight of a talent in Frankincenſe, for tribute

Out of Syria they bring backe Storax, with the acrimonie & hot ſmell whereof, being burnt upon their herths, they put by and drive away the loathſomneſſe of their owne odors, wherwith they are cloyed: for the Arabians uſe no other fuell at all for their fires, but ſweet wood. As for the Sabæans, they ſeeth their meats in the kitchin, ſome with the wood of the Incenſe tree, and others with that of Myrrhe: inſomuch as both in citie and countrey their houſes bee full of the ſmoke and ſmell thereof, as if it came from the ſacrifice upon the altars. For to qualifie therefore this ordinarie ſent of Myrrhe and Frankincenſe wherewith they are ſtuffed, they perfume their houſes with Storax, which they burne in Goats skins. Loe, how there is no pleaſure whatſoever, but breedeth lothſomneſſe, if a man continue long to it. The ſame Storax they uſe to burne for the chaſing away of Serpents, which in thoſe forreſts of ſweet trees, are moſt rife and common.

Chap. xviii.

Of the felicitie of Arabia.

NEither Cinamon nor Caſia doe grow in Arabia, and yet is it named Happie: unworthie countrey as it is, for that ſurname, in that it taketh it ſelfe beholden to the gods above therefore, whereas indeed they have greater cauſe to thanke the infernall ſpirits beneath. For what hath made Arabia bleſſed, rich, and happie, but the ſuperfluous expenſe that men be at, in funerals? employing thoſe ſweet odors to burne the bodies of the dead, which they knew by good right were due unto the gods. And verily it is conſtantly affirmed by them who are acquainted well with the world, and know what belongeth to theſe matters, That there commeth not ſo much Incenſe of one whole yeeres encreaſe in Saba, as the Emperour *Nero* ſpent in one day, when he burnt the corps of his wife *Poppea*. Caſt then, how many funerals every yeere after were made throughout the world: what heapes of odours have been beſtowed in the honour of dead bodies: whereas we offer unto the gods by crums and graines onely. And yet when as men made ſupplication unto them with the oblation of a little cake made of ſalt and meale, and no more; they were no leſſe propitious and mercifull, nay they were more gratious and favourable a great deale, as may appeare by hiſtories. But to returne againe to Arabia, the Sea enricheth it more than the land, by occaſion of the orient pearles that it yeeldeth and ſendeth unto us. And ſurely our pleaſures, our delights, and our women togither, are ſo coſtly unto us, that there is not a yeare goeth over our heads, but what in pearles, perfumes, and ſilkes; India, the Seres, and that demy-Iland of Arabia, ſtandeth us at the leaſt in an hundred millions of Seſterces, and ſo much fetch they from us in good money, within the compaſſe of our Empire. But of all this maſſe of

Spice

Spice and Odors, how much (I pray you) commeth to the ſervice of the coeleſtiall gods, in compariſon of that which is burnt at funerals, to the ſpirits infernall?

Chap. xix.

Of Cinamon, and the wood thereof called Xylocinnamomum. Alſo of Canell or Caſia.

FAbulous antiquitie, and the prince of lyers *Herodotus*, have reported, That in that tract where *Bacchus* was nouriſhed, Cinamon and Canell either fell from the neſts of certaine foules, and principally of the Phœnix, through the weight of the veniſon and fleſh which they had preyed upon and brought thither where as they builded in high rockes and trees; or els was driven and beaten downe, by arrowes headed with lead. Alſo that Canell or Caſia was gotten from about certaine mariſhes, guarded and kept with a kind of cruell Bats, armed with terrible and dreadfull tallons, and with certaine flying Pen-dragons. And all theſe deviſes were invented onely to enhaunce the price of theſe drugs. And this tale is told another way, namely, That in thoſe parts where Canell and Cinamon grow (which is a country in manner of a demy-Iland, much environed with the ſea) by the reflection of the beames of the Noon-ſun, a world of odoriferous ſmels is caſt from thence, in ſuch ſort, that a man may feele the ſent at one time of all the aromaticall drugs as it were met togither, and ſending a moſt fragrant and pleaſant ſavour farre and neare: and that *Alexander* the Great ſailing with his fleet, by the very ſmell alone diſcovered Arabia a great way into the maine ſea. Lies all, both the one and the other: for Cinamome, or Cinamon, call it whether you will, groweth in Æthiopia, a countrey neare unto the Troglodites, who by mutuall marriages are linked togither in great affinitie. And in very truth, the Æthiopians buy up all the Cinamon they can of their neighbours, and tranſport it into other ſtraunge countries over the vaſt Ocean, in ſmall punts or boats, neither ruled with helme and rudder, nor directed too and fro with ores, ne yet caried with ſailes or any ſuch means of navigation: one man alone ſhall you ſee there in a boat, armed and furniſhed with boldnes only in ſtead of all, to hazard himſelfe and his goods in the ſurging ſea. Theſe fellowes, of all times of the yeere, take the dead of the winter, and then (to chuſe) they will venter to croſſe the ſeas for their voyage, when the Southeaſt winds are aloft and blow luſtily. Theſe winds ſet them forward in a ſtreight and direct courſe through the gulfes; and after they have doubled the point of Argeſte, and coaſted along, bring them into the famous port or haven-towne of the Gebanites, called Ocila. And albeit this voiage be long and dangerous (for the merchants hardly can return in five yeeres, and many of them miſcarrie by the way) yet by report, they are nothing diſmaied and daunted therewith, but willingly adventure ſtill. And beeing at Ocila, what thinke you doe they exchaunge for, and wherewith fraight they their veſſels back againe homeward? even with glaſſes, veſſels of copper and braſſe, fine cloth, buckles, claſpes, and pincers, bracelets and carcanets, with pendant jewels: ſo as a man would verily thinke, that this traffick were maintained and the voiages enterpriſed under the credit and for the pleaſure of womankind eſpecially. Now as touching the plant that beareth Cinnamon, the talleſt is not above two cubits high above-ground, nor the loweſt under one hand-breadth or foure inches: in compaſſe about foure fingers thicke: immediatly from the earth it putteth forth twigs, and is full of braunches of ſixe fingers length, but it looketh as if it were drie and withered: whiles it is greene it yeeldeth no ſmell at all: and the leafe reſembleth Origan: it loveth drought, for in rainie weather it is leſſe fruitfull; and yet it is of this nature, To be cut as a coppis. It will grow verily in plaines, but gladly it would lodge among the thickeſt rough of buſhes, greeves, and bryers that are to be found: ſo as men have much adoe to come by it and to gather it: but never is it cut or cropped without eſpeciall permiſſion of a certain god, which they take to be *Iupiter*; and this patron of the Cinamon tree, they call *Aſſabinus*. To obtaine leave and licenſe ſo to do, they are glad to ſacrifice the inwards of 44 Kine or Oxen, Goats alſo and Rams: and when they have all done, yet permitted they be not to goe about this buſineſſe either before the Sunriſing, or after his ſetting. Now when theſe twigs & branches be cut, the Sacrificer or Prieſt divideth & parteth them with a javelin, and ſetteth by one portion for the god aboveſaid: the reſt doth the merchant put up & beſtow in paniers for the purpoſe. This manner of diviſion is otherwiſe reported; namely, That the whole heap is caſt into three parts, whereof the Sunne hath one for his ſhare: but they draw lots firſt for every

one

A one of these three severall bundles or parcels of Cinamon stickes; and that which falleth to the Sun, is let alone and left behind: but of the owne accord it catcheth a light fire and burneth. The best Cinamon is thought to be that which groweth about the slendereſt sticks, for the length of an handbredth from the upper end. The second sort in goodnes, is that which is next it and somwhat lower, but it beareth not full so much as an hand-breadth; and so consequently in order by degrees downward: for the worst and of least price is that which is neereſt to the root, because there is least barke, the principall and chiefe thing required in Cinamon: which is the cause that the twigs in the tree top are preferred before the rest, for that in them there is most barke. As for the very wood it selfe, which is called Xylocinamomum, there is no reckoning made of it, because of the acrimonie and sharpenesse which it hath, resembling Origan. A pound thereof is
B worth 20 deniers. Of Cinamon, there be (according to some) two kinds; to wit, the whiter, and the blacker. In times past, the white was in more request; but now adaies the black is most set by: yea and that of divers colours, is better esteemed than the white. But the trueſt marke indeed to chuse the best, is to see that it be not rough, and that it crumble not quickly if one peece be rubbed against another. That which is tender and soft, and hath besides a white barke, is not regarded at all, but condemned for the worst. Moreover, this is to be noted, that the King only of the Gebanites, setteth the price and sale of Cinamon: he it is that selleth it in open market according as it is by him taxed. In old time, a pound of it was sold for 1000 deniers: and this price afterward rose higher by one half, by reason that the forrests of Cinamon were (as men say) burnt by the barbarous Troglodites their neighbours, in their furious wrath. Now why it should be so
C deere, no man certainely knoweth; whether it were through the great rich merchants, who ingrossed all into their hands by way of monopoly, or by some such casualtie and chaunce of fire aforesaid. But true it is and well knowne by that we find in divers writers, That there be such hot Southerne winds blowing in those parts, that in summer many times they set the woods on fire. *Vespasian Augustus* the Emperor, was the first that dedicated in the temples of the Capitoll and goddesse *Peace*, guirlands and chaplets of Cinamon, enclosed within fine polished gold. In that temple which the Empresse *Augusta* caused to be built in the pallace upon mount Palatine, for the honour of *Augustus Cæsar* late Emperor her husband, I have my selfe seene a Cinamon toot of great weight, set in a cup of gold, which yearely did put forth certaine drops that congealed into hard graines. That monument remained there to be seene, untill the temple and all was con-
D sumed by fire.

As concerning Casia or Canell, a plant it is, which groweth neare to the plains from whence the Cinamon commeth; but it loveth to live upon mountaines, and beareth a bigger and rounder wood in the braunches than the Cinamon; and hath a thin rind or skin, more truly than a barke: and the slenderer that the same is and lighter, the more reckoning is made of it; cleane contrarie to the Cinamon. This shrub that beareth Casia, groweth to the height of three cubits: & three colors it carrieth: for when it commeth up first, for a foot from the root, it is white: then, as it shooteth halfe a foot higher, it waxeth red: but as it riseth farther, it is blackish: and this part is held for the best: and so the next to it, in a degree lower: but the white is of no regard at all: and therefore they never cut the twigs and braunches neare the root, nor above two cubits in length. And when they have cut them in this manner, they presently sow them up in greene skins of fourfooted beasts, killed new and fresh for that purpose, that of their corruption and putrefaction there might breed certaine worms, to eat out the wood within the barke, & so make it hollow; for the barke is so bitter, that the worme will not touch it. The newest and freshest Canell, is reputed best, and that which hath a most delicate smell; very hot in the mouth, and burning the tongue, rather than gently warming it without any great biting. Such Canell is of a purple colour, and very light in hand; which seeming much to the eye, yet weigheth little: besides, the pipes be but short, and the outward rind or coat is not brittle and easie to fall in peeces. This elect and choise Canell, the barbarous people call Lacta. Another sort there is, named Balsamodes, because it hath a smell resembling Balme: bitter it is in the mouth, and therefore of more use in Physicke; like as the blacke is most employed in sweet perfumes and oyntments. There is no druggs that varieth more in price than the Canell: for whereas the best will cost fiftie deniers Romane a pound; all the rest a man may buy for five.

Chap. xx.

Of Isocinnamon, Cancamum, and Tarum.

THe huckſters and regraters that buy & ſell again, have another kind, which they call Daphnoides, & they ſurname it Iſo-cinnamon: and ſurely they hold it at 300 deniers the pound. Mingled it is and made counterfeit with Storax: with the ſmalleſt and tendereſt braunches alſo of Lawrell, for the likenes that it hath to the barke thereof. Moreover, it is ſet and planted in our part of the world here in Italie: alſo in the utmoſt marches and confines of our Empire, along where the river Rhene runneth, it liveth, being ſet neare unto Bee-hives. Howbeit, becauſe it wanteth the parching heat of the Sunne, it is nothing ſo deepe coloured: and thereupon alſo it commeth ſhort of the ſmell that the other hath. Out of the regions which bound upon thoſe parts where Caſia and Cinamon doth grow, there are brought over unto us two other Spices, called Cancamum and Tarum; but by the way of the Troglodyte Nabathæans: who onely of the auncient Nabathæans, there ſetled and remained.

Chap. xxi.

Of Serichatum, Gabalium, or Myrobalanum, [i. Ben.]

IN the ſame countrey, the Arabians come charged alſo with Serichatum and Gabalium: but they make an hand with it among themſelves, and ſpend it quite: in ſuch ſort, as their druggs are knowne only in name to us in this part of the world, albeit they grow togither with Cinnamon and Caſia. And yet otherwhiles there is Serichatum brought unto us, which ſome perfumers uſe to put into the compoſition of ointments. And a pound of it is commonly exchanged for ſix deniers.

As for Myrobalanon, [i. Behen] it groweth ordinarily in the regions of the Troglodytes, about Thebais, and that part of Arabia which divideth Iurie from Ægypt: a drugge that Nature hath brought forth onely for ointment, as the vety name giveth it. Whereby it appeareth alſo, that it is a very nut of a certaine tree, which beareth leaves like to Heliotropium: whereof we will ſpeake among other hearbs. The fruit that this plant beareth, is about the bignes of a filberd nut. That which groweth in Arabia, and yet called Syriaca, is white: but contrariwiſe that about Thebais, is blacke. The former of theſe two, is commended for the goodnes of the oile which is preſſed out of it: but the Thebaicke Ben is in greater requeſt for the plentie that it yeeldeth. As for the Troglodyticke, it is the worſt of all, and the cheapeſt. And yet ſome there be, who prefer the Æthiopian Ben before all other. The Nut or fruit thereof, is blacke and fat, with a ſmall and ſlender kernell within: howbeit the liquor preſſed forth of it, is more odoriferous: and it groweth in champion countries and plains. It is affirmed moreover, that the Ægyptian Ben is more oleous and fat, having a thicker ſhell, and the ſame red. And albeit that it grow in mariſh grounds, yet it is a ſhorter plant and more drie than the others. But contrariwiſe they ſay, that the Arabicke is greene of colour, and thinner in ſubſtance: and for that it groweth upon the mountaines, it is more maſſie and weightie. But the beſt ſimply by many degrees, is that Ben which is called Petræa, comming from about the towne aboveſaid; with a blackiſh rind, and white kernell. Now the Perfumers and Apothecaries, doe preſſe onely the huskes and ſhells; but the Phyſicians extract an oile out of the verie kernels, which as they ſtampe, they poure hot water ever and anon unto it, by little and little.

Chap. xxii.

Of Phœnicobalanus, Calamus odoratus, and Squinanth.

THe Date in Ægypt, called Adipſos, hath the like uſe in ointments, and is next in requeſt for ſuch odoriferous compoſitions, as the Myrabalanus or Ben aforenamed. Greene it is in colour, it ſmelleth like unto a Quince, and hath no woodie ſtone within. But to ſerve for thoſe purpoſes above recited, it muſt be gathered ſomewhat before that it beginneth to ripen. That which is left behind ungathered, is called Phœnicobalanus: this waxeth black, and maketh them drunke that eat thereof. As for Myrobalanus, or Ben, it is worth two Romane deniers a pound.

A pound. The occupiers and shopkeepers call the very setling and grounds of their ointment and compositions, by the name of Myrobalanon.

Moreover, within Arabia there groweth also the sweet Calamus, which is common to the Indians and Syrians likewise. That of Syria passeth all the rest, and commeth up in a tract of that countrey, distant from the coast of our Sea fiftie Stadia. Betweene mount Libanon, and another mountaine of no account [for it is not Antilibanon as some have thought] in a little vale beneath neare unto a lake, the marshes and flats whereof are drie in Summer for the space of thirtie Stadia, there grow both sweet Calamus, and also Squinanth or Iuncus Odoratus, [*i.* the Sweet-rush.] For let us speak also in this place of the said Scænanth: & although it be but a rush, and another booke is appointed for the treatise and historie of such Hearbes, yet because wee
B handle the *Species* that goe to the composition of sweet Perfumes, Pomanders, and Ointments, I cannot passe it over. Well then, neither the one nor the other of these twaine, differ in sight from the rest of that kind. But Calamus is the better of the twaine, and hath a more pleasant smell; for a man may wind the sent of it presently a great way off: besides, it is softer in hand: and better is that which is lesse brittle, and breaketh in long spils and shivers, rather than knappeth off like a Radish root. Within the pipe of this reed, there lieth a certain matter like unto a Spiders web, which the Apothecaries call the flower of it: and that Calamus is counted the better, which hath more in it of these flowers. There is another marke also of good Calamus, namely if it be blacke: and yet in some place, they make no reckoning of the blacke Calamus. But in a word, the shorter and thicker that the reed is, the better is the Calamus: and the same is more
C supple and pliable when a man would breake it. As for Calamus, it is worth eleven deniers the pound: but Squinanth is sold for fifteene. Moreover, some say that there is a sweet rush or Squinanth found in Campania. And now are wee gone from those lands that coast upon the deepe Ocean, and come to those that confront and lie upon our Mediteranean seas.

Chap. xxiii.

Of *Hammoniacum*, and *Spagnum*.

TO begin withall, in the sands of those parts of Affricke which lie under Æthiopia, there is a liquor distilleth, called in Greeke *Hammoniacum*, of *Hammon*, which signifieth Sand, and the Oracle of *Iupiter Hammon*: for neare unto the temple where the said Oracle returneth Answers, there grow certaine trees within the sands, which they call Metopia, from which, Hammoniacum droppeth in manner of a rosin or gum: and of it there be two kinds: the one is named Thrauston, like unto the male or better Frankincense, and is most esteemed: the other is fat and full of rosin, and they call it Phyrama. The manner to sophisticate Hammoniacum, is with sand, to make men beleeve that it grew among the sands, & gathered it in the growing and comming up: and therefore the good Ammoniacum is knowne when it is in least morcels, and those very cleare. The price of the best is after fortie asses the pound.

Beneath these quarters, and within the province Cyrenaica, there is found a passing sweet Mosse, called Sphagnos; and of some Bryon [aromaticum.] Of all such Mosses, this is thought to be the best. Next unto it, is that of Cyprus: and in a third ranke, the Mosse which groweth in Phœnicia. There is such Mosse (by report) in Ægypt, and likewise in Fraunce: whereof, for my part, I make no doubt: for they be nothing else but the grey and whitish haires that we see hang to trees, and about the oke especially, called commonly Mosse; but only that these be sweet and odoriferous. The chiefe praise is of the whitest and lightest: a second commendation belongeth to that which is red: but the black is worth nothing: neither is there any reckoning made of that which groweth in Ilands and rocks, and (to conclude) all those that smell not as Mosse should, but rather like to Dates, or the plants whereof they come.

Chap. xxiiii.

Of *Cyprus*, *Aspalathus*, and *Marum*.

THere is a tree in Ægypt called Cypros, bearing leaves like to Ziziphus or the Injube tree, and a graine resembling Coriander seed, with a white flower very pleasant and sweet. These flowers be steeped and sodden in common oile: out of which is afterwards pressed medi-

cinable oile called Cyprus, or Cyprinum. A pound of it will coſt five Romane deniers. The beſt commeth from that tree which groweth upon the bankes of that river Nilus about Canopus, which is the firſt mouth where it diſchargeth it ſelfe into the ſea. The ſecond in goodnes groweth about Aſcalon a citie of Iudæa. The third in worth for ſmell and ſweetnes, is had from the Iland Cyprus. Some take this Cyprus to be the plant, which in Italy is called Liguſtrum, [*i.* Priver.]

In the ſame tract groweth Aſpalathus: a white thornie ſhrub it is, of the bigneſſe of a ſmall tree, and beareth a flower reſembling a roſe. The root of it is in requeſt for the making of ſweet perfumes and ointments. There goeth a common ſpeech, That every plant over which the rainbow is ſeene bent, will caſt the ſame ſent that Aſpalathus doth: but if it chaunce that the rainbow ſettle over Aſpalathus, then it will yeeld a ſweet ſavour incomparable, and ſuch as cannot be expreſſed. Some call it Eryſiſceptrum, others Sceptrum, ſimply. The good Aſpalathus is red, or rather of a fiery colour, maſſie and heavie in hand, with a ſmell of Caſtoreum. It is ſold for fifteene deniers the pound.

In Ægypt likewiſe there groweth Marum, but it is not ſo good as that of Lydia; for it hath greater leaves, and thoſe ſpotted with ſundrie colours; whereas the other hath little ſhort leaves, but they ſmell paſſing ſweet.

Chap. xxv.

Of Baulme, as well the liquor thereof called Opobalſamum, as the wood named Xylobalſamum. Alſo of Storax [Calamita] and Galbanum.

BVt the Baulme is that ſweet and odoriferous liquor that goeth beyond all others. The tree that yeeldeth it, Nature hath beſtowed onely upon the land of Iurie. In old time it was not to be found but in two parkes or hortyards, belonging both to the kings of Iurie: wherof the one contained not above twentie jugera or acres, the other not ſo much. The Emperours *Veſpaſians*, both father and ſon, brought one of thoſe little Balme trees to Rome, and ſhewed it openly to the whole citie. *Pompey* the Great likewiſe made proud boaſt and vaunted much, when hee ſaid, That trees alſo by him were borne in triumph. Now this Baulme tree ſerveth and doth homage, yea is tributarie with the whole nation where it groweth: but it is of a nature farre different from that which both our Latine writers, and thoſe alſo of fortein countries, have deſcribed: for more like it is to a vine than a Myrtle. It is planted by ſlips and branches, as the vine: and of late dayes bound and tyed alſo like a young vine. It ſpreadeth and filleth the hills where it is ſet, after the manner of thoſe vines in vineyards, which without any helpe of props, ſupport and beare up themſelves. Cut likewiſe it is, pruned, and cleanſed, from thoſe ſuperfluous ſhoots that it putteth out. It loveth to bee well husbanded, digged about, raked, and trimmed; and with this ordering, groweth apace, ſo as within three years it is fruitfull. It beareth a leafe much like to Rue, and continueth with a greene head all the yeare long. At the ſacking and deſtruction of Ieruſalem, the Iewes in a furious rage both againſt their owne perſons & their goods, would needs have wreaked their anger and been revenged upon the poore Baulme trees, and have ſpoiled them for ever: but the Romans on the other ſide ſtood in their defence, ſo as about this very plant, there was a cruell battaile fought. But now theſe trees are united unto the domaine of our Empire: and by order from the ſtate, are ſet and maintained: ſo as never at any time before, were they more in number, or taller of growth: howbeit the higheſt exceedeth not two cubits. And three ſorts there be of them. The firſt hath ſlender braunches and ſmall, like haires; whereupon it is called Eutheriſtos, [*i.* eaſie to be cut or lopt.] The ſecond, rough and rugged to ſee to, bowing and bending forward, full of twigs and braunches; ſweeter alſo than the other to ſmell unto, and this they name Trachy in Greeke, which is as much to ſay as Rough. The third they call Eumeces, becauſe it is higher than the reſt, and it hath beſides a ſmooth barke: this in goodnes is the ſecond; and the firſt, named Eutheriſtos, is the worſt. The fruit or ſeed that the Baulme tree beareth, reſembleth wine in taſt, of colour red, and it is not without a certaine veine of fat. The worſt part of the graine or fruit, is the lighter in weight, and the greener. It is clad with boughes and leaves thicker than the Myrtle. Now, for to draw the precious liquor out of it called Balme, inciſion ought to be made in the barke, with glaſſe-knives, with ſharpe flint ſtones, or lancets of bones. For it may not abide, that any inſtrument of yron or ſteele ſhould come neare unto the quicke; it dieth preſently if you touch the heart of it therewith: and yet the ſame will ſuffer all

ſuperfluous

A superfluous boughes and branches to be cut off and pruned. But hee that launceth and maketh incision, must guide and gage his hand very artificially in the cutting, that he go not too deepe, nor peirce a jot farther than the barke. This feat being wrought, there issueth out of the wound a juice or liquor, which they call Opobalsamum, of an excellent and surpassing sweet smell: but it commeth forth by small drops: and as it thus weepeth, the teares ought to be received in wooll, and then afterwards it is gathered and laid up in small hornes. Out of which it is poured into new earthen pots that never were occupied. This Baulme when it is fresh and new, may be likened to Oile, in thicknesse and consistence, but in colour it is white; in time it groweth reddish, and hard withall, howbeit, cleare & transparent, that a man may see through it. During the wars that *Alexander* the Great waged in Iurie, it was ordinarie in a summers day to gather one spoonefull of
B this liquor, & that was all that might be done. And when the season served best for this purpose, and that it was counted a plentifull yeare, the greater hort-yard or parke of the kings abovesaid, never yeelded in all above six gallons, and the lesser but one: sold it was commonly for the double weight in silver. But at this day, every tree that may beare it, and hath a larger veine to abide incision, is launced thrice in a summer time: and after that, it is lopt and shread. And those cuttings are good chaffer, and sold very well to the merchant. For being thus lopped once in five yeares at the furthest, they yeeld in braunches for wood onely, eight hundred deniers. This is called Xylobalsamum, & it goeth into odoriferous compositions: for in default of the right Baulm liquor, the Apothecaries make a shift to serve their turne with the wood alone, called Xylobalsamum. As for the very barke, it entreth also into many medicinable confections: no marvell therC fore if it carie some price. But it is the liquor onely that is so precious, the liquor it is which yeeldeth that most fragrant smell; then followeth the graine or fruit in a second degree, the barke in a third, and the wood as it is last, so it hath least grace and credite. Of the wood, the best is that which in colour resembleth Box, and giveth sweetest sent. But of the fruit, the greatest graines and the weightiest, be most esteemed; such bite at the tongues end, and bee hote in the mouth. Howbeit, this is adulterated with the seed of *Hypericum, that commeth from the cittie Petra. But the deceit is soone detected and found, for that seed is not so big, so massie and full, nor so long as the true graine of Baulme: besides, it hath but a dull savour or none at all, and in tast resembleth pepper. The liquor is known to be right or good, if it be oleous and fat, thin, & sheere, somewhat enclining to red; and, if in rubbing betweene your fingers, it rendereth a pleasant savour. The white Baulme may bee raunged in a second place of goodnesse: the greene and the thicke is not so good as it: but the blacke is worst. For Baulme as well as Oile, will be stale & worse for the age, if it be kept too long. This is moreover observed, that in every incision, that which flowed forth before the seed is ripe, is most precious. Over and besides, this Baulme may bee sophisticated with the owne seed: and hardly can this cousenage bee found out, but that it hath a bitterer tast than that which is naturall. For the good Baulme should be pleasant and delicate in the mouth, not soure nor tart at all: onely in smell it should have an harsh verdeur. Corrupted it may be otherwise, with Oile of Roses, of Cyperus, of Lentiske or Mastick, of Ben, of Terebinth, and Myrtles; also with Rosin, Galbanum, and Cyprian wax, as occasion serveth, and according as men list to sophisticate it. But the greatest knaverie of all, is to mingle gum among it: for being so handled, it will sticke and cleave to the palme or inside of a mans hand, nay, it will sinke in water to the bottome, which are two principall properties of the right Baulme. For the very pure and perfect Baulme ought to cleave too: but when it hath gum mingled among, stick it will likewise, but it will gather soone a brittle rouse or crust upon it, which quickly cracketh and breaketh. Also this sophistication is found out by the tast. But in case there bee any trumperie of Wax or Rosin, the fire will soone bewray it; for when it burneth, it will yeeld a more muddie and blacke flame. As for the sophistication made with honie, it may soone bee knowne: for presently the flies will take it, and gather thick about it. Over & besides, put a drop of pure Baulme into warme water, it will settle to the bottome of the vessell, and congeale: but contrariwise, the counterfeit Baulme, will flote and swim above like oile. Againe, if it have Galbanum in it, yee shall see a white streake or circle round about it. To conclude, would you know in a word the right Baulme indeed? It will turne milke, and cruddle it: and it will not staine a cloth. In summe, there is no marchandise and commoditie in the world, wherein there is practised more fraud and deceit, than in the trafficke of Baulme. For a Sextare or wine quart of Baulme will cost a thousand Roman deniers by retaile, which was bought for three hundred & no more at the hands

*i. S. Johns wort.

of the factors under the Emperour, who ſold it firſt. Whereby a man may ſee how gainefull it is to increaſe this liquor by ſophiſtications. As for the Baulme wood Xylobalſamum, the price of it is ſix deniers a pound.

Now it remaineth to ſpeake of Storax [Calamita] comming out of that part of Syria, which above Phœnice, confronteth & bordereth next to Iurie: and namely, about Gabala, Marathus, and the mount Caſius in Seleucia. The tree that yeeldeth this gum or liquor, is alſo named Styrax, like unto a Quince tree. It hath at firſt a rawiſh auſtere taſt, which afterwards turneth to bee more ſweet and pleaſant. There is found within a reſemblance of canes and reeds, full of this juice. Howbeit, about the riſing of the Dog ſtar there be certaine winged wormes ſettle upon the ſaid reeds, creepe in and eat away the marrow (as it were) which lay within: ſo as a man ſhall find nought left behind but a mouldie duſt or rotten powder, good for nothing. Next to this Storax of Syria, great account is made of that which commeth out of Piſidia, from Sidon, Cypres, and Cilicia: but leaſt reckoning is made of that which Candie ſendeth us. That which is brought from the mount Amanus in Syria, is good for the Phyſicians, but better for the perfumers and confectioners. From what nation ſoever that it commeth, the beſt Storax is that which is red, ſomewhat glutinous beſides by reaſon of the fattines. The worſt is that which hath no conſiſtence and tenacitie, but crumbleth like bran, and is ſo mouldie that it is overgrowne with a white hoarie moſſe. The pedlers and ſuch like petie marchants can skill how to ſophiſticate this drug alſo, with the roſin of cedar and gum: otherwhiles alſo with honie, or bitter almonds. But all theſe deceits are knowne by the taſt. The price of the beſt is 19 deniers a pound. There is a Storax beſides which Pamphylia doth yeeld, but drier it is, and nothing ſo full of moiſture.

Moreover, we have from Syria out of the ſame mountaine Amanus, another kind of gum called Galbanum, iſſuing out of an hearbe like Fenell-geant, which ſome call by the name of the ſaid Roſin, others, Stagonitis. The beſt Galbanum, and which is moſt ſet by, is griſtly and cleare withall, reſembling Hammoniacum, without any ſpils of wood in it. For in that wiſe the huckſters uſe to deceive their chapmen by mingling beanes with it, or the gum Sagapenum. The right Galbanum, if you burne it, chaſeth away Serpents with the ſtrong perfume or ſmoke thereof. It is ſold for five deniers the pound: and is uſed onely in Phyſicke for medicines.

Chap. xxvi.

Of Panaces, Spondylium, and Malobathrum.

THe ſame perfumers ſeeke alſo into the ſame Syria for Panaces growing there, and yet it is to be found likewiſe about Pſophis, a citie in Arcadia; and the fountaines from whence floweth the river Erymanthus; yea, and in Affricke beſides, and Macedonie. This Panax is an hearbe with a tall ſtalke and round tuft in the head like Fennell, and yet it is a plant by it ſelfe, growing to the height of five cubits. At the firſt it putteth out foure leaves, and afterwards ſix. They be very large and round withall, lying upon the ground: but toward the top they reſemble the leaves of an Olive: it beareth ſeed in the head hanging within certaine round tufts, as doth the Ferula. Out of the ſtalke of this hearbe there is drawne a liquor by way of inciſion, made in harveſt time: and likewiſe out of the root in Autumne, or the fall of the leafe. And this is called Opopanax. The beſt looketh white when it is gathered and congealed. The next in worth and weight, is that which is yellow. As for the blacke, it is of no account. The better Opopanax coſteth not above two Aſſes a pound.

Another hearbe there is of this Fennell kind, named Spondylium, ſomewhat different from the former, but in leaves only; becauſe they be leſſe than thoſe of Panax, and devided after the manner of the Plane leaves. This Spondylium groweth no where but in cold and ſhadowie places. It carieth a fruit or graine called alſo Spondylium, which reſembleth the forme of Sil or Siler Montanum, and ſerveth for no uſe but Phyſicke.

We are beholden moreover to Syria for Malobathrum. This is a tree that beareth leaves rolled up round together, and ſeeming to the eie withered. Out of which there is drawne and preſſed an Oile for perfumers to uſe. Ægypt is more fruitfull of this hearbe than Syria. And yet there commeth a better kind thereof from India than both thoſe countries. It is ſaid, that it groweth there in meeres and ſtanding waters ſwimming aloft, after the manner of Fen-lentils or Duckes meat, more odoriferous than Saffron: enclining to a black colour: rough in handling, and in taſt

ſalt or brackiſh. The white is not ſo well eſteemed. It will ſoone be mouldie when it is ſtale. The relliſh thereof ought to reſemble Nardus at the tongues end. The perfume or ſmell that *Malobathrum or the leaſe yeeldeth when it is boiled in wine, paſſeth all others. It is ſtraunge and monſtrous, which is obſerved in the price: for it hath riſen from one denier to three hundred a pound, whereas the Oile it ſelfe doth coſt threeſcore. *Folium.

Chap. xxvii.

Of Oile Olive, made of greene Olives, likewiſe of Grape Verjuice.

FOr the mixture and compoſition of ointments, the Oile of unripe Olives and Verjuice is very good. And verily, made it is in two kinds, and after two ſorts, to wit, of the Olive and the Vine. Of the Olives, if yee would have good, they ought to be preſſed whiles, they bee yet white. For if they turne colour once and be blackiſh, the worſe is the Oile or Verjuice that commeth thereof. And ſuch kind of Olives bee called Drupæ, namely, before they be fully ripe and good to eat, and yet have loſt their colour. And herein is the difference, for that the Oile of this latter ſort is greene, the other is white. Now as touching grape Verjuice, it ſhould be made of the Vine Pſythia or Amminea, and before the canicular daies, when as the grapes be but new knit, and no bigger than cich-peaſe. The grapes (I ſay) muſt be gathered for this purpoſe, at the beginning before they chaunge colour, and the juice thereof ought then to be taken. Then ſhould the Verjuice that commeth from it, be ſunned: and heed muſt be taken in any caſe, that no dewes by night doe catch it, and therefore it would ſtand in couvert. Now when this juice or Verjuice is gathered, it is put up in earthen pots: and otherwhiles kept alſo in veſſels of copper. The beſt grape Verjuice, is red, ſharpe, and ſoure in taſt, drie withall and ſcypticke. A pound or a pint of ſuch Verjuice is worth ſixe deniers. It may bee made in another ſort: namely, by punning and ſtamping unripe grapes in morters: drying it afterwards in the Sunne, and ſo made up into certaine rolls or trochisks.

Chap. xxviii.

Of Bryon and Oenanthe: of the tree Elate, and Cinnamon Cariopus.

THe moſſe of the white Poplar or Aſpe, which is reputed as the grape therof, is uſed likewiſe in theſe odoriferous and ſweet compoſitions. The beſt groweth about Cnidos or Caria, in thirſtie, drie, and rough places. A ſecond ſort is that which is found upon the Cedar of Lycia. To this pertaineth Oenanthæ, which is no more but the grapes of the wild vine called Labruſca. Gathered it is when it floureth, that is to ſay, when it ſmelleth beſt. It is dried in the ſhade upon a linnen ſheet lying under it, and then put up into little barrels. The cheefe commeth from Parapotamia: the ſecond from Antiochia and Laodicea in Syria: and a third ſort from the mountaines of Media: and this is beſt for medicine. Some preferre before all theſe, that which groweth in the Iſland Cypros. As for that which is made in Affricke, it is meet for Phyſicians onely, and is called Maſſaris. Now, the better ever is that which they gather from the white wild vine, than from the blacke. Moreover, there is another Tree which ſerveth for perfumes: ſome call it Elate, and we Abies, [*i.* the Firre] others Palma or the Date, and ſome againe Spathe. That which groweth about the ſands of Affricke, where *Iupiter Hammons* temple ſtandeth, is highly commended above the reſt: and after it, that in Ægypt. Next thereto is the Syrian. This tree is odoriferous when it groweth in drie places onely: it hath in it a certaine fat liquor or Roſin, and entreth into compoſitions of ſweet ointments, for to correct and mitigate the other oile. In Syria there is a drug which they call Cinnamum Caryopon. A juice or oile this is, preſſed out of a certaine nut. This Cinnamon differeth much in forme from the ſtickes of true Cinnamon indeed above ſpecified: although in ſmell it commeth neere unto it. A pound thereof is worth to be bought and ſold 40 Aſſes, [*i.* 2 *ſhil.* 6 *d.*]

THE

THE XIII. BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

The Preface.

THus farre forth the woods and forrests are of estimation, in regard of the pleasure they doe unto us for perfumes and sweet odours: and in truth, if wee consider duly these aromaticall plants, admirable they be every one in their kind, even as they bee weighed apart by themselves alone. But such is the riot and superfluitie of man, that being not content with that perfection of Nature shining in those plants and trees above rehearsed, he hath not ceased to mingle and compound them, and so of them all together for to make one confused smell: and thus were our sweet ointments and precious perfumes devised, whereof we purpose to write in this booke next ensuing.

Chap. I.

Of Ointments, Perfumes, and their compositions: and when they came into knowledge first at Rome.

AS touching the invention of Ointments, it is not well knowne who was the first that devised them. Certaine it is, that during the reigne of the Trojans, and whiles Ilium stood, men knew not what they meant: nay, they used not so much as Incense in sacrifice and divine service. The fume and smoke of the Cedar and the Citron trees only, the old Trojans were acquainted with when they offered sacrifice: their fuming and walming steame (more truly I may so tearme it, than any odoriferous perfume) they used: which they might easily come by, since they were plants growing among them, and so familiar; notwithstanding they had found out the juice of Roses, wherewith yet they would not correct the foresaid strong fumes in those daies; for that also was known to be a commendable qualitie of Oile Rosate. But the truth is, The Persians and none but they ought to be reputed the inventors of precious perfumes and odoriferous ointments. For they to palliate and hide, the ranke and stinking breath which commeth by their surfet and excesse of meats and drinkes, are forced to helpe themselves by some artificiall meanes, and therefore goe evermore all to be perfumed and greased with sweet ointments. And verily, so far as ever I could find by reading histories, the first prince that set such store by costly perfumes, was king *Darius*, among whose coffers (after that *Alexander* the Great had defeated him and woon his campe) there was found with other roiall furniture of his, a fine casket full of perfumes and costly ointments. But afterwards they grew into so good credite even among us, that they were admitted into the ranke of the principall pleasures, the most commendable delights, and the honestest comforts of this life. And more than that, men proceeded so farre, as therewith to honour the dead: as if by right that dutie belonged to them. And therefore it shall not be amisse to discourse of this theame more at large. Wherein I must advertise the Reader by the way, that for the present I will but only name those ingredients that goe into the composition of these ointments: such I meane as came not from hearbs and trees, shrubs and plants; reserving the treatise of their natures, vertues, and properties, unto their due place.

First

Firſt and formoſt therfore, all perfumes tooke their names either of the countrie where they were compounded, or of the liquors that went to their making, or of the plants that yeelded the ſimples and the drugs: or elſe of the cauſes and occaſions proper and peculiar unto them. And here it would be noted alſo principally, that the ſame ointments were not alwaies in like credite and eſtimation: but one robbed another of their honour and worth: inſomuch, as many times upon ſundrie occaſions, that which was lately in requeſt and price, anone gave place to a new and later invention. At the firſt in auncient time, the beſt ointments were thought to come from Delos; but afterwards, thoſe that were brought out of Ægypt: no talke then but of Mendeſium, compounded at Mendes, a cittie there. And this varietie and alteration was not occaſioned alwaies by the diverſitie of compoſition and mixture, but otherwhiles by reaſon of good or bad drugs: for ye ſhould have the ſame kind of liquors and oiles better in this countrey for one purpoſe, and in that for another: yea, and that which in ſome place was right and true, the ſame did degenerate and grow to a baſtard nature, if you chaunged once the region. For a long time, the oile or ointment of Iris or the Floure de-luce root made at Corinth, was in much requeſt, and highly praiſed: but afterwards that of Cizicum woon the name & credite, for the artificiall compoſition thereof. Semblably, the oile of Roſes that came from Phaſelus, was greatly called for: but in proceſſe of time, Naples, Capua, and Præneſte, ſtole that honour and glorie from thence in that behalfe. The ointment of Saffron, confected at Soli in Cilicia, imported for a good while and caried the praiſe alone: but ſoone after, that of Rhodes was every mans money. The Oile drawne out of the flowers of the wild vine in Cyprus, bare the name once; but afterwards that of Ægypt was preferred before it: and in the end the Adramyttians gained the credite and commendation from both places, for the perfect & abſolute confection thereof. The ointment made of Marjoram, gave credite for a certaine time to the Iſle Coos: but not long after, their name was greater for another made of Quinces. As for the oile Cyprinum, which came of Cypros, the beſt was thought to be made in Cyprus: but afterwards there was a better ſuppoſed to be in Ægypt: where the ointments Metopium and Mendeſium all of a ſuddaine were better accepted than all the reſt. It was not long firſt, but that Phœnice put Ægypt by that credite for thoſe two ſingular compoſitions, and left the Ægyptians the name alone for the foreſaid Oile Cyprinum. The Athenians were renowned for their auncient Panathenaicum, and ever held their owne. There was in old time a notable compoſition named Pardalium, made in Tharſus: but now the mixture and making thereof is quite loſt. The ointment likewiſe Narciſſimum, where the flower of the Daffadill was the Baſis, is now forgotten, and no more made of it. The manner of compounding all theſe ointments, was two-fold, to wit, either of the juice and liquor, or els of the very ſubſtance and bodie of the ſimples. The former ſort reſemble the nature rather of Oiles: but the latter of Ointments. And theſe the Greekes call either Stymmata, which yeeld the conſiſtence and thickneſſe to ointments; or Hedyſmata, which ſerve to aromatize and give a compleat perfection unto them. There is a third thing between theſe, requiſite alſo to the full making of theſe ſweet ointments, namely, the colour: although many take no regard at all of it. And for this purpoſe, the perfumers put into their compoſitions Cinnabaris [*. Vermillion or Sanguis Draconis] and Orcanet. The ſalt moreover that is ſtrewed among, ſerveth to repreſſe and correct the nature of the oile that uniteth all the ingredients beſides. But thoſe that have the root of Orcanet in them, need no ſalt at all to be put in beſides. As for Roſin and Gum, they are mingled with the reſt to incorporate the drugs and ſpices, and to keepe in the ſweet odour thereof, which otherwiſe would evaporate and ſoone be loſt. We are to preſume by all likelyhood, that the firſt compoſition of ointments, and ſooneſt made, was of the odoriferous moſſe Bryon, and the oile of Ben onely: whereof we have written in the former booke. Then came in place a more compound ointment called Mendeſium, and that received Roſin alſo to the foreſaid oile of Ben. And more than that, another beſides named Metopium. Now is this Metopium an oile compounded, which the Ægyptians doe preſſe out firſt of bitter Almonds, but they added thereto for to incorporate the better, grape Verjuice: and the ingredients beſides, were Cardamanum, Squinanth, ſweet Calamus, Honnie, Wine, Myrrhe, the graines or ſeeds of Baulme, Galbanum, Roſin, and Terpintine. One of the meaneſt and baſeſt ointments now adaies, and therefore thought to be as auncient as any other, is that which conſiſteth of the oile of Myrtles, ſweet Calamus, Cypreſſe, and Cypros [Squinanth] Lentiske, and the rind of the Pomgranate. But I would thinke verily, that Ointments came to be ſo divulged and common every where abroad, by meanes of Roſes moſt

of

of all: considering, that nothing groweth more rife in all places. Which was the cause, that the simple mixture of Oile Rosate, without any sophistication besides, continued for a long time, having the addition of grape Verjuice, the flower of Roses, the Saffron, Cinnabaris or Sinopum, Calamus, Honie, Squinanth, the flower of salt called Sperma-ceti, or els in lieu thereof the root of Orcanet, and Wine. The oile or ointment of Saffron was after the same sort made, by putting thereto Cinnabaris, Orcanet, and Wine. Semblably is to be said of the oile of the sweet Iesse majoran, wherein was mixed grape Verjuice and sweet Calamus. This composition was singularly well made in Cyprus and at Mitylene, where great store of sweet *Majoran groweth. There bee other oiles likewise which are not of so good reckoning, namely, of Myrtles and Baies, which receive a mixture with the addition of Majoran, Lillies, Fenigreek, Myrrhe, Casia, Spikenard, Squinanth, and Cinnamon. Moreover, of great Quinces and the lesse called Mala Struthea, is made the oile Melinum, whereof we will speake hereafter: which the perfumers use in their ointments, by putting thereto grape Verjuice, the oile Cyprinum, the oile Sesamine, Baulme, Squinanth, Casia, and Sothernwood. As touching the oile of *Lillies, which is the most subtile and thinnest of all other, it is made of Lillies, Ben, sweet Calamus, Honie, Cinnamon, Saffron, Myrrhe, & Aspalathus. Also the foresaid oile Cyprinum is made of the flowers of Cypros, of Verjuice, Cardamonum, Calamus, Aspalathus, and Sothernwood. Some there be that put moreover unto this oile, Myrrhe and Panace. The Sidonians are excellent at the making of this composition: & after them the Ægyptians, so that they put not in Sesamium oile. For it will last & keep good full foure years: and if it begin to loose the smell, it is quickened and refreshed again with Cinnamon. Now as touching the ointment of *Feni-greeke, it is made of fresh oile, Cyperus, Calamus, Melilot, Feni-greeke, Honie, oile of Quinces, the greater & the lesse sweet Marjaram. This was of highest reputation, in the daies of *Menander* the Comicall poet. But long after there succeeded into the same place of credit, the ointment Megalium; so called for the great glorie that it caried: and this was compounded of the oile of Ben, of Baulme liquor, sweet Calamus, Squinanth, Balme-wood, Casia, and Rosin. In the making hereof, this propertie it had by it selfe, that all the while it was a compounding and seething, it should ever and anon be vented, and shifted out of one vessell into another, untill the smell of it were gone. Which nevertheless it would recover againe after it was once cold. Moreover, some liquors there be of themselves, that without any other mixtures may serve and go for noble sweet ointments. Among which, that of Malabathrum is the cheefe: next to it the Flower de Luce of Sclavonia, and the great sweet Marjaram of Cyzicum. Howbeit the Hearbarists love to be putting in some few spices besides, as well in the one as the other: but some make choise of one thing, some of another to entermingle withall. They that take delight to have their mixtures most compound, adde unto either of those abovenamed, Honie, the flour of Salt, grape Verjuice, the leaves of Agnus Castus, and Panace, and generally all that be strange and forraine, to make their compositions seeme more wonderfull. To the oile or ointment of Cinnamon, there goeth the oile of Ben, Baulme wood, sweet Calamus, Squinanth, the *fruit or seeds of Balsamanum, Myrrhe, and Honie Aromaticall. This is of all other the thickest ointment in substance. The price of this, is from 35 deniers to 300 the pound. As for the ointment Nardinum or Foliatum, it is composed of the oile of greene Olives or grape Verjuice, of the oile of Ben, of Squinanth, Costus, Spikenard, Amomum, Myrrhe, and Baulme. Howbeit, this point would not be forgotten in the making of this composition, that it is a very easie matter to sophisticate it, by reason that there be no fewer than nine hearbes or simples which we have declared, that come neare to the Indian Spikenard, and may bee taken for it. Finally, to quicken and fortifie the sent of all these ointments, there must no spare bee made of Costus and Amomum, which of all other drugs pierce into the nosthrils, and cast a strong smell. To make them thicker and more pleasant, there would be good store of Myrrhe put in: but to have them better for the use of Physicke, and more medicinable, it is good to season them well with Saffron. As for Amomum, of it selfe alone it causeth all ointments where it commeth to bee most quicke and penetrative: insomuch as it causeth headach. Some for to spare cost, thinke it sufficient to aromatize onely these ointments with those drugs which are so deare and precious, either by strewing the powder, or sprinckling their liquors among, whereas the rest of the ingredients be boiled: but such compositions bee nothing so effectuall, as when all be sodden and fermented together. As for Myrrhe it selfe, it maketh alone a precious ointment without any other oile, I mean that only of the liquor Stacte: for otherwise it is exceeding bitter and unpleasant. If it bee mingled

*Samsuchus.

*Susinum.

*Telinum.

*Xylobalsamum.
*Carpobalsamū.

with

with the oile Cyprinum, it looketh greene; if with the oile of Lillies, it will bee fattie and unctuous; if with Mendeſium, blacke; with oile Roſet, white; with that of Myrrhe, pale. Lo what were the inventions in old time of aromaticall and odoriferous ointments: loe what were the deviſes afterwards of the ſhopkeepers and perfumers, to picke pence out of our purſes, and to rob us. It remaineth now to ſpeake of the parangon indeed of all theſe pleaſures and delights: of that I ſay wherein conſiſteth the very height and cheefe point of this argument in hand.

Chap. ii.

Of the Oyntment called Royall: of drie Perfumes, Powders, and Pomanders: and how they be kept.

THe Royall Ointment therefore (which the Parthian Kings uſed ordinarily, and of whome it tooke that name to be called Royall) is tempered and compoſed in this manner: to wit, of Ben, Coſtus, Amonium, Cinamon, the Arbut or Comarus, Cadamonum, Spikenard, Marum, Myrrhe, Caſia, Storax Calamita, Ladanum, Baulme liquor, ſweet Calamus, Squinanth of Syria, the flower of the wild Vine, Malabathrum, Serichatum, Cyperus, Aſpalathus, Panace, Saffron, Cypros, Marjoram the greater, clarified or purified Honey, and Wine. As for Italie, (the ladie and conquereſſe of all other nations) there groweth nothing in it good to make ointments; no nor nothing throughout all Europe, unleſſe it be the Floure-deluce root, & the Celticke Spikenard: for Wine, Roſes, Myrtle leaves, and Oile, are well knowne to be common for all countries.

As for thoſe mixtures which be called Diapaſmata, they conſiſt of drie ſpices and drugs. Alſo the dregs or grounds of Ointments, they call Magma. Moreover, this is to be obſerved in the mixture and compoſition of thoſe Ointments, That the drugs which be put in laſt, are ever the ſtrongeſt and moſt effectuall.

Now as touching the keeping of Ointments, they are beſt preſerved in pots or veſſels of Alabaſtre: and Odors are ſureſt maintained and continue longeſt, being incorporate in oile: which the fatter that it is, ſerveth better for a continuance of their ſent; as a man may ſee very well in the oyle of Almonds. And to ſay a truth, the older that an oyntment is, and the longer fermented, the more vertue it hath for the age. The ſunne is an enemie unto them, and therefore they muſt incorporate and unite together in the ſhade, and be put up in veſſels of lead. The triall of them is taken with the back-part of the hand, for fear leaſt that the heat of the fleſhie ſide within, ſhould corrupt and marre them.

Chap. iii.

Of the ſuperfluitie in expence at Rome, about theſe Ointments: and at what time they were firſt uſed there.

AT this day there is not in Rome any thing wherein men more exceed, than in theſe coſtly and precious Ointments: and yet of all other, they are moſt ſuperfluous and may be beſt ſpared. True it is, that much money is laid out upon Pearles and precious ſtones; but theſe are in the nature of a domaine and inheritance, and fall to the next heire in ſucceſſion. Againe, rich and coſtly apparell ſtand us in a great deale of coine; howbeit they are durable and laſt a long time: but Perfumes and Ointments, are ſoon done and gone; they exhale and breath away quickly; they are momentanie, they ſerve but for the preſent, and die ſodainly. The greateſt matter in them, and their commendation is this, To cauſe a man (what buſines ſoever he hath otherwiſe) to caſt his eye and looke after a gentlewoman as ſhe paſſeth by perfumed in the ſtreets, and ſendeth a ſmell from her as ſhe goeth. This is all the good they doe: and yet forſooth a pound of this ware muſt coſt 400 deniers: ſo deer is the pleaſure that paſſeth from our ſelves and goeth to another: for the partie himſelfe that carrieth the perfume about him, hath little or no delight at all in it; others they be that reape the benefit and pleaſure thereof. And yet among theſe odoriferous compoſitions, there is choiſe and difference betweene one and another. We find in the writings of *M. Cicero*, that hee made more account of thoſe ointments which ſavoured of the earth, than thoſe which ſmelled all ſtrong of Saffron: as if hee meant thereby, That in this exceſſive diſorder and moſt corrupt enormitie of all others, a certaine moderation yet and ſad delay would

would doe well; and that a severitie (if I may so say) in the vice it selfe, were better to be liked. But some take delight especially in thick and grosse ointments, and are not content to be perfumed, yea and bathed all over, unlesse they be besmeared, greased, and dawbed also therewith: I have my selfe seene some of them to annoint the very soles of their feet with these pretious baulmes: and (by report) it was *M. Otho* that first taught the Emperour *Nero* this wanton delicacie. But I would gladly know, and some good bodie tell me, I pray, How he could feele the smell thereof, and what delight or contentment it might yeeld from that part of the bodie? I have heard say besides, by some of the inward familiars and speciall favorites of this prince, That he commanded the very walls of his baines and stouves to be perfumed with pretious ointments: and that *C. Caligula* the Emperour, caused the very vessels and seats wherein he used to sit when hee bathed or swet in his hothouse, to be in that manner annointed. And because this might not seem to be a speciall pleasure fit for an Emperour onely, I knew one of *Neros* servants afterwards, who used so to doe as well as his lord and master. But I muse and marveile at nothing so much, as that this wanton delight should find the way and enter so farre as into the mids of the campe. For wot ye what? I assure you the very standerds and ensignes, the Ægles (I say) and Minotaures, so dustie as they be otherwise, so foule and ill-favoured, as being kept so long, and standing by unoccupied, are wont forsooth to be annointed and perfumed upon high and festivall daies. And, so god helpe me, I would I knew who it was that first brought up this fashion and needlesse superfluitie: Certes, I would not defraud him of his due honor: I would (I say) recommend his name unto all posteritie. But thus it is (no doubt) and it cannot otherwise be; Our Ægles and standerds (bribed, hired, and corrupted with this so good a reward) have therefore in recompense conquered the whole world. Vnder such colours and pretences (indeed) wee deceive our selves, and cloake the vice and riot of our times: and thus having so good a reason as this, to induce and draw us on, we may not sticke to have pretious baulmes upon our heads, so it be under our sallats and mourrons.

To say for certeintie and precisely, when this enormitie entred first into Rome and began there to raigne, I am not able. Sure it is, as appeareth upon record, That after the subduing of K. *Antiochus* and the conquest of Asia, which was about the 565 yeere from the foundation of Rome, *P. Licinius Crassus*, and *L. Iulius Cæsar* the Censors, published an edict, prohibiting and forbidding to sell any forrein or strange ointments within Rome: for so they tearmed these sweet mixtures and compositions. But (beleeve me) now adaies, some there be so wanton and delicate, that there is no wine or other drinke good with them, nor will goe downe their throat, unlesse it be spiced and aromatized with these baulmes: and so little passe they for the bitternesse of these odours and smels, that they are well content to wast and spend a deale thereof, without and within, behind and before, above and beneath, to enjoy the persume thereof in all parts of the bodie wheresoever. Well knowne it is, that *L. Plotius*, brother to *L. Plancus*, a man of great credit and authoritie, as having been twice Consull, and Censor besides, beeing outlawed and proclaimed a banished person by the decree of the * Triumvirs, was discovered within a certain cave at Salernum, where he lay close hidden and sure enough otherwise, by the very smell onely of a pretious oyntment that he had about him: and so by that meanes (besides the shame and disgrace that he received, thus to detect himselfe and be found of his enemies) the rigour of the act and arrest that passed against him, was executed and performed upon his bodie. And who would ever pitie such persons, & not judge them worthie to come to so bad an end? But to conclude all this discourse, There is not a country in the world that yeeldeth such plentie and varietie of drugs fit for these compositions, as Ægypt: and next to it, Campaine in Italie may carrie the name, for the store of Roses there growing.

* *Antonie, Lepidus, & Octavius.*

Chap. iiii.

Of Dates, and Date trees: their nature and severall kinds.

THe land of Iurie is as much renowmed, or rather more, for the aboundance of Palmes or Date trees which it affourdeth: the discourse whereof we now will enter into. True it is, and it cannot be denied verily, that there be of them found in Europe, & namely, every where in Italy; but such, be all of them barren. Also in the maritime parts and sea-coasts of Spaine, ye shall meet with Palmes that beare Dates, but they are but tart and unpleasant, and indeed never come

come to their maturitie and ripeneſſe. Thoſe of Affrick, I muſt needs ſay, bring forth a ſweet and pleaſant fruit, but it will not laſt, and ſoone is gone: whereas contrariwiſe, in the Eaſt parts the people make wine thereof; and in ſome countries they uſe it for bread, yea the very bruit & four-footed beaſts doe ordinarily feed of Dates: and therefore we hold and conclude, that Dates may be truly called, Forrein fruits; and their Trees, Meere ſtraungers in this part of the world. For in Italy a man ſhall not find ſo much as one Palme tree that commeth up of it ſelfe, without it be ſet or planted by mans hand: neither in any other region whatſoever, unleſſe it lie under ſome hote climat: but to beare fruit ye ſhall never know it in any countrey, if the ſame be not extreme ardent and ſcortching. Date trees love a light and ſandie ground; and ſpecially (for the moſt part) if it ſtand much upon a veine of Nitre beſides. And yet contented will they be to grow by ſome river ſide, where they may have as it were, one foot in the water, and be ever drinking all the yeer long, eſpecially in a drie ſeaſon. Some thinke, that dung is as contrarie and hurtfull unto them, as to ſome kind of Citron trees in Aſſyria, unleſſe it be mingled and tempered with water, or the trees planted neare to ſome running river. Moreover, many kinds there be of Date trees: and the firſt are ſmall, and exceed not the bigneſſe of ſhrubs: theſe in ſome parts are barrein, and in others fruitfull: they ſhute out little ſhort branches round about, but very full of leaves, the which in moſt places ſerve in ſtead of parget & rough-caſt, to defend walls of houſes againſt the weather and drifts of raine. Howbeit a ſecond ſort there be that are much taller, and whole forreſts ſtand onely upon thoſe trees: they put forth leaves ſharpe pointed, and they grow round about diſpoſed one cloſe unto another in manner of comb-teeth: and theſe muſt of neceſſitie bee taken for wild, and no better: and they love here and there as it falleth out, to be entermingled among thoſe of the tamer kind, as if they tooke I wot not what pleaſure in their companie. The reſt growing in the Eaſt parts, be ſtreight, round, and tall, environed about the bodie with circles or houpes made of the very barke it ſelfe, and they are of the thicknes of a mans thumbe, ſet in order one above another like ſteps and greeces neare togither, in ſuch ſort that the people of the Eaſt may eaſily climbe them, by the meanes of the ſaid barke, which ſerveth not only for a veſtiment to the tree, but alſo for ſtaires to him that would mount up, ſo that it is a wonder to ſee how nimbly a man will run up to the top. Theſe Date trees beare all their braunches toward the head; and their fruit commeth not forth among the leaves as in other trees, but hangeth to certaine braunches and twigs of the owne between the boughs like cluſters of grapes: inſomuch as it reſembleth partly the nature of a grape, and partly of an apple. The leaves made in forme of a knife blade ſharpe toward the point, ſlit as it were and cloven in the edge along both ſides, make ſhew at the firſt of certain faire and beautifull gemmes: and now they ſerve inſtead of cords, and to bind vines togither: alſo being divided and ſlived into flakes, they are good to plait for hats and light bongraces for the head, againſt the heat of the ſunne. Moreover, all learned men who are deeply ſtudied in the ſecrets of Nature, be of opinion and doe teach us, That in all trees and Plants, nay rather in all things that proceed out of the earth, even in the very Hearbs, there are both ſexes. Let it ſuffice therefore to have ſpoken thus much once for all in this place. But there is no tree whatſoever, in which this diſtinction of male and female appeareth more, than in Palme trees: for the male putteth forth his bloome in the braunch; but the female ſheweth no flower at all, but ſprouteth and ſhooteth out buds in manner of a thorne: howbeit both in the one and the other, the pulpe or fleſh of the Date commeth firſt, & after it the woodie ſtone within, which ſtandeth in ſtead of the graine and ſeed of the Date. And this appeareth evidently by a good token, for that in the ſame braunch there be found little young Dates without any ſuch ſtone at all. Now is the ſaid ſtone or kernell of the Date, in forme long, not ſo round and turned like a ball as that of the Olive. Beſides, along the back it hath a cut or deepe ſlit chamfered in (as it were) betweene two pillowes; but in the mids of the belly on the other ſide, for the moſt part, it hath a round ſpecke formed like a navill, wherat the root or chit beginneth firſt to put forth. Moreover, for the better planting of Dates, they ſet two togither of their ſtones in a ranke with the bellies downward to the earth, and as many over their heads: for if one alone ſhould come up, it were not able to ſtand of it ſelfe, the root and young plant would be ſo feeble; but foure togither ſo joyne, claſpe, and grow one to another, that they do well enough and are ſufficient to bear themſelves upright. The kernell or woodie ſubſtance within the Date, is divided from the fleſhie pulpe and meat thereof, by many white pellicles or thin skins betweene: neither lyeth it cloſe thereto, but hollow a good diſtance from it, ſave that in the head it is faſtened thereunto by a thred or

ſtring: and yet there be other pellicles that cleave faſt and ſticke to the ſubſtance of the Date within. The Date is a yeere in ripening. Howbeit in certaine places, as namely in Cyprus, the meat or fleſhie pulpe thereof is ſweet and pleaſant in taſt, although it bee not come to the full ripeneſſe: [where alſo the leafe of the tree is broader, and the fruit rounder than the reſt:] mary then you muſt take heed not to eat and ſwallow downe the very bodily ſubſtance of it, but ſpit it forth after you have well chewed and ſucked out the juice thereof. Alſo they ſay, that in Arabia the Dates have but a faint & weake ſweetnes with them: and yet K. *Iuba* maketh greateſt account of thoſe which the region of the Scenites in Arabia doth yeeld, where they be called Dabula: and he commendeth them for their delicate and pleaſant taſt, before all others. Moreover, it is conſtantly affirmed, That the females be naturally barrein, and will not beare fruit without the companie of the males among them to make them for to conceive: yet grow they will nevertheleſſe and come up of themſelves, yea and become tall woods: and verily a man ſhall ſee many of the femals ſtand about one male, bending and leaning in the head full kindly toward him, yeelding their braunches that way as if they courted him for to win his love. But contrariwiſe, he a grim ſir and a coy, carrieth his head aloft, beareth his briſtled & rough arms upright on high: and yet what with his very lookes, what with his breathing and exhalations upon them, or elſe with a certain duſt that paſſeth from him, he doth the part of an husband, inſomuch as all the females about him, conceive and are fruitfull with his onely preſence. It is ſaid moreover, That if this male tree be cut downe, his wives will afterwards become barrein and beare no more Dates, as if they were widdowes. Finally, ſo evident is the copulation of theſe ſexes in the Date trees, and knowne to be ſo effectuall, that men have deviſed alſo to make the femals fruitfull, by caſting upon them the bloomes and downe that the male beareth, yea and otherwhiles by ſtrewing the powder which he yeeldeth, upon them. Beſides the manner aboveſaid of ſetting Date ſtones for encreaſe, the trees may bee replanted of the very truncheons of two cubits long, ſlived and divided from the very braine (as it were) of the greene tree in the top, and ſo couched and interted, leaving onely the head without the ground. Moreover, Date trees will take againe and live, if either their ſlips be plucked from the root, or their tendrils and ſmall braunches be ſet in the earth. As for the Aſſyrians, they make no more adoe, but if it be a moiſt ſoile, plaſh the very tree it ſelfe whole as it ſtandeth, and draw it along and ſo trench it within the ground, and thus it will take root and propagate: but ſuch will never prove faire trees, but skrubs onely. And therefore they deviſe certaine Seminaries or Nource-gardens of them, and no ſooner bee they of one yeares growth, but they tranſplant them; and ſo againe a ſecond time when they be two years old: for theſe trees love alone to be remooved from one place to another. But whereas in other countries this tranſplantation is practiſed in the ſpring, the Aſſyrians attend the very mids and heat of Summer, and in the beginning of the Dog-daies uſe to replant them. Moreover, in that country they neither cut off the heads, ne yet ſhred the braunches of the yong plants with their hooks and bills; but rather bind up their boughes, that they may ſhoot up in height the better. Howbeit when they are ſtrong, they cut their braunches, for to make the bodies burniſh and waxe thicker, but yet in the lopping they leave ſtumps of boughs halfe a foot long, to the very tree: which if they were cut off, in other places, would be the death of the mother ſtocke. And foraſmuch as Date trees delight in a ſalt and nitrous ſoile, [according as hath been before ſaid] the Aſſyrians therefore when they meet not with a ground of that nature, ſtrew ſalt, not cloſe about the roots, but ſomewhat farther off. In Syria and Ægypt, there be ſome Date trees that divide themſelves and are forked in twaine, riſing up in two trunks or bodies. In Crete, they have three, and ſome alſo five. The nature of the Palme or Date tree, is to beare ordinarily when they be three yeares old: howbeit in Cyprus, Syria, and Ægypt, it is foure yeares firſt ere ſome bring fruit; yea and five yeares before others begin: and ſuch never exceed a mans heigth, neither have they any ſtone or woodie kernell within the Date ſo long as they be young and tender: during which time they have a pretie name for them, and call them Gelded Dates: and many kinds there be of theſe trees. As for thoſe that be barrein and fruitleſſe, all Aſſyria and Perſia throughout, uſe them for timber to make quarters and pamels for ſeeling, waineſcot, and their fine joyned workes. There be alſo of Date trees coppey woods, which they uſe to fell and cut at certaine times: and evermore they put forth a young ſpring from the old root and ſtocke. Theſe have in the very head and top, a certaine pleaſant and ſweet marow, which they tearme, The braine: and therefore thoſe that love to eat it, will cut and take it away, and yet the tree will live nevertheleſſe:

a thing

a thing that ye ſhall not lightly ſee in any others of that kind. As for thoſe Date trees which have broader leaves, & the ſame ſoft and pliable, very good to make windings to bind vines and ſuch like, they be named by the Greekes Chamæropes. Great abundance there is of them in Creta, but more in Sicily. The wood of Date trees yeeldeth coales, that in the burning will keepe fire long: howbeit a dead flame it is that they make, and nothing quicke. As touching thoſe that be fruitfull, ſome beare Dates with a ſhort ſtone or kernell within; others with a longer: theſe are more ſoft, thoſe be harder. Some carie a kernell of a bonie ſubſtance, like the moone croiſſant, which many are wont to poliſh with ſome tooth, and in a kind of religion are perſuaded, that it is good againſt witchcraft, and is of vertue to procure womens love. Some of theſe ſtones be clad and covered with many skins or pellicles, and others with fewer: ye ſhall have in this Date, thoſe tunicles thicke and groſſe; in that, thinner and more fine. In ſumme, if a man would ſearch into them particularly, he ſhould find fiftie ſundrie ſorts of Dates ſave one, with ſeverall ſtrange, and barbarous names, & as many different wines made of them. But the principall & moſt excellent of all the reſt, ſurnamed Roiall Dates, for that they were reſerved for the kings owne mouth of Perſia, were known to grow no where els but in Babylon, and in one hortyard or parke only of a Bagous (for ſo they uſe to call their eunuches or guelded perſons, and ſuch in times paſt reigned as KK. over them:) and this parke was evermore annexed to the crown, and went with the Roiall ſcepter, as a chiefe demaine of the Empire, and paſſed from one prince to another by ſucceſſion. But in the South countries and meridionall parts of the world, the Dates ſurnamed Syagri are highly commended above all others, and moſt eſteemed: and next to them, thoſe which be called Margarides, are in account and good requeſt: Theſe be ſhort, white, and round, more like in forme to berries and little buttons, than to maſt-fruit and Dates indeed: wherupon they took their name of Pearls, which they do reſemble. It is reported, that in the citie Chora, there is one of theſe trees which beareth Dates like to Pearles; as alſo another that carieth the Dates Syagri. I my ſelfe verily have heard ſtraunge things of this kind of tree, and namely in regard of the bird Phœnix, which is ſuppoſed to have taken that name of this Date tree [called in Greek φοῖνιξ] for it was aſſured unto me, that the ſaid bird died with that tree, and revived of it ſelfe as the tree ſprung againe. Now at the very time that I wrote this Hiſtorie of Natures workes, I ſaw the ſame tree with fruit upon it: the Date that it beareth is great, hard, rough in handling, and in taſt reſembling ſome harſh and wild fruit, farre different from other kinds of Dates: in ſuch ſort, as I wondred not at the name of Syagros, ſo like it taſted to the fleſh and veniſon of a wild Bore in the forreſt, that commeth to our board. In a fourth rank of Dates for goodnes, are to be raunged thoſe which they call Sandalides, for the reſemblance of ſlippers or pantofles which they uſed in old time, named Sandalio. But in theſe daies they bee as rare, as otherwiſe pleaſant; ſo that within the bounds of Æthiopia (a wonderfull matter) there be not above five of them to be found. After the Sandalides, the Dates Caryotæ are in greateſt requeſt: for they bee not onely good to eat, but alſo a wine is made of their juice, which they yeeld in great abundance: for all the people of the Eaſt make their ſpeciall drinke thereof. But true it is, that this kind of wine is hurtfull to the head, and therupon the Greeks gave it that name. Now as theſe countries above-ſaid doe affourd plentie of Date trees, and the ſame fruitfull enough, ſo Iurie alone carrieth the name and the praiſe for goodnes of Dates; and not all Iurie neither, but the territorie about Iericho eſpecially: and yet I muſt needs ſay, that there be gathered very good Dates in the vales of Iury, which be named Archelais, Phaſelis, and Livias. And theſe Dates of Iurie, have this eſpeciall propertie above all others, To be full of a fat white liquor reſembling milke, which hath a certaine taſt of wine, and is exceeding ſweet and pleaſant withall like honey. The drier kind of theſe Dates be thoſe that tooke name of one *Nicolas*, and were called Nicolaï: paſſing faire and great they be above all others by farre; for foure of them laid in a ranke one at the end of another, will make a cubit in length. Other Dates there be, not ſo faire to the eye as theſe Caryotæ, but ſurely for pleaſant taſt they may be well their ſiſters, like as they bee called thereupon Adelphides. And a third kind there be of the ſame Caryotæ, which they commonly call Pareton: over-full they are of liquor, and ſo drunke (as a man would ſay) with their owne juice, that they burſt even as they hang upon the tree their mother, yeelding their wine in that manner of their owne accord, as if they were troden with mens feet in a wine-preſſe; and thereupon they got that name. Another kind there is yet by it ſelfe, of thoſe Dates that be drier than the reſt, and they be very long and ſlender, yea and otherwhiles not ſtreight, but bending and crooked. As for thoſe

which we dedicate to holy uſes, and namely, when wee ſacrifice and offer oblations to the gods, the Iewes (a nation above all others noted for contempt and mockerie of the gods) their worſhip and divine ſervice doe name Chydæi, [*i.* vile and of no price.] The Dates in Ægypt called Thebaides, as alſo thoſe in Arabia, be all over-drie and withered, poore, leane, and thin. Parched as they be continually with the heat of the Sunne, a man would deeme they were covered with a cruſt or ſhell, rather than with a skin or pill. Goe further into Æthiopia, there they be ſo drie that they will ſoone crumble into powder like meale; and indeed they make therof their bread, when it is tempered and wrought with water. Theſe Dates be round, and bigger than a good apple; and they grow upon a plant or ſhrub which ſpreadeth braunches of a cubit length: and the Greekes call them Cycæ. They hang three yeares before they be ripe: and evermore you ſhall ſee upon the tree Dates ripe, when others come new foorth greene and ſmall. As for the Dates of Thebais in high Ægypt, ſo ſoone as they be gathered, preſently they are put up into barrels, whiles their naturall heat is in them; for if that courſe were not taken with them, it would ſoone exhale and vaniſh away: yet will they decay and rot, if they be not baked againe in the oven. As touching all other Dates, they ſeeme to be the common and vulgar ſort, ſimply called Dates: and yet both the Syrians and King *Iuba*, hold them for junkets and banketting diſhes. For as in ſome part of Phœnice and Cilicia, they bee called Balani, [*i.* glandes or maſt] ſo we at Rome tearme them by the very name of their owne countrey Phœnice, and by no other. And even of them there be many kinds; and thoſe different one from another, either in forme, for that ſome be round, others long; or elſe in colour, whiles there be of them red and blacke: in which regard, a man may obſerve in them (by report) as great varietie as in figs: howbeit the whiteſt be the beſt and moſt commended. Great diverſitie there is alſo among them in quantitie and bigneſſe, inſomuch as ye ſhall have many of them that want nothing of a cubit; and other for them againe no bigger than a beane. Now as touching the Dates that be barrelled up and kept, they be ſuch onely as come from ſalt and ſandie grounds, as in Iurie, and Cyrenaica in Affricke: for thoſe of Ægypt, Cyprus, Syria, and Seleucia in Aſſyria, will not keepe and be preſerved: and therefore they muſt be ſpent out of hand: for which, they take good order to franke their ſwine and feed other cattaile fat with them. The true ſigne to know a faultie or a ſtale Date, is this, If a certaine white ſpecke or wart which ſtucke upon it when it grew on the branch, be ſhed and falne off. Now to conclude this treatiſe, I think it not amiſſe to ſet downe for an example, what did betide the ſouldiers that were of *Alexanders* armie, who with eating of greene Dates new ripe, were choked, and ſo died. In the Gedroſians countrey, this accident befell unto them, onely by the nature of the fruit it ſelfe, eat they of it as moderately as they could: but in other parts, their greedie and over-liberall feeding upon them, was their bane. For ſurely new Dates as they come from the tree, are ſo exceeding pleaſant and delicious, that a man can hardly forbeare and make an end in good time, before he ſurfet of them and catch a ſhrewd turne.

Chap. v.

Of the trees in Syria.

BEſides the Date tree, there be other eſpeciall trees in Syria proper unto that countrey: for in the firſt place there are a kind of Nuts there growing, commonly knowne and called Fiſticks. And (by report) this vertue they have, either taken as meat or drunk in drinke, To reſiſt the ſting and biting of ſerpents. Alſo our drie * Figs, and a leſſer ſort than they named Cottana come from thence. Alſo the Damaſcene prunes, growing upon the mount Damaſcus; as alſo the fruit Sebeſten, are the commodities of Syria: howſoever they are now familiar here with us in Italy. As for Sebeſten, there be wines made thereof in Ægypt. Alſo the Phœnicians have a leſſe kind of Cedars much like to the Iuniper: and two ſorts there be thereof, the Lycian and the Phœnician, which differ in the leafe: for that which hath an hard, ſharpe, and prickie leafe, is called Oxycedrus: full of braunches it is beſides, and ſo knurrie, that it is troubleſome to the hand. As for the other Cedar, it hath an excellent ſmell. Both twaine doe beare a fruit of the bigneſſe of Myrtle leaves, and ſweet in taſt. Moreover, of the greater Cedar there bee two kinds: that which doth bloſſome, beareth no fruit: and contrariwiſe, that which is fruitfull, ſheweth no bloſſome: and in this, the new fruit commeth foorth alwaies before the old of the former yeare be ripe and gathered: alſo the ſeed of it is like that of the Cypreſſe. Some call this Cedar,

*called Lenten figs.

Cedar, Cedrelate: whereof commeth the beſt Roſin. And the timber of it is everlaſting: wherefore in old time they were wont to make the images of the gods, of this wood, as it appeareth by the ſtatue of *Apollo Soſianus*, made of Cedar wood, brought from Seleucia. In Arcadia there is a tree like the Cedar, but in Phrygia it is called a ſhrub.

Chap. vi.

Of the Terebinth.

MOreover, in Syria groweth the Terebinth or Terpentine tree. The male beareth no fruit. The females be of two ſorts: the one carieth red graines of the bigneſſe of Lentils, the other bring forth pale ſeeds. This fruit of the Terebinth ripeneth with grapes. Vpon the mountaine Ida near Troas, it is as big as a Beane, more pleaſant to ſmell unto, and glutinous like Roſin, if a man handle it. But in Macedonie the tree is but ſhort, and ſpreadeth braunches like a ſhrub: contrariwiſe, about Damaſcus in Syria, it is very great and tall. The timber of it is verie tough, continueth a long time, and never ſhrinketh for age: of colour blacke, but paſſing faire, and reſplendent withall. It putteth forth flowers in cluſters after the manner of the Olive, but it is red: and the leaves otherwiſe grow very thicke. It beareth alſo certaine ſmall cods or bladders full of a gummie and clammie moiſture (which alſo iſſueth out of the barke) and out of thoſe bladders there come forth little flies like gnats.

Alſo the male Rhus or Sumach of Syria doth beare fruit: wheras the females is barren. This plant putteth forth leaves like to the Elme, but that they be ſomewhat longer, and full of haires, and evermore the ſteles of the leaves grow contrarie one againſt the other. As for the braunches, they be ſlender and ſhort, good for curriers to dreſſe their skins and make leather white. The ſeed or graine thereof reſembleth Lentils: and being ripe, it is red, and commonly with the grape. The which is called Rhus or Sumach, even as the tree: a neceſſarie fruit for many medicines.

Chap. vii.

Of the Aegyptian and Cyprian Sycomores or Fig-trees.

IN Ægypt likewiſe there be found many trees which grow not elſewhere: and principally the Sycomore, which thereupon is called the Ægyptian Figtree. The tree for leafe, bigneſſe, and barke, is like unto the Mulberie tree. It beareth fruit not upon the branches, but out of the very bodie of the ſtocke. And the ſame is a paſſing ſweet fig, but without any graines at all within. It doth increaſe in exceeding great abundance, ſo it be ſcraped and clawed only with yron hooks: for otherwiſe it will not ripen. Come then foure daies after to gather it, you ſhall not miſſe but find it ripe, and new comming up in the place. Thus in every ſummer you ſhall have a ſevenfold encreaſe, and the ſame in much plentie, yeelding alſo great abundance of milke. And ſay that you doe not uſe the ſcraping or paring abovenamed, yet ſhall you be ſure of four fruits in a ſummer, one under another; but ſo as the new will drive the old before it, and cauſe it to ſhed and fall before it bee well ripe, for want of that handling beforeſaid. The timber of this tree is counted right good and profitable; having one ſingular propertie by it ſelfe. No ſooner is it hewed, but preſently it is caſt into ſtanding pooles, and there drowned. This is the only way to ſeaſon, & drie it. At the firſt (I ſay) it ſinketh downe to the bottome: but afterwards it beginneth to flote above: and without all queſtion, the water which uſeth to wet and drench all other trees, ſoketh and ſucketh forth the ſap and humiditie of this wood. Now when it beginneth once to ſwim aloft, it is a ſigne that it hath the full ſeaſoning, and is good for building and other workes.

Like to this Sycomore in ſome ſort is a certaine tree in Candie, which is called the Cyprian fig-tree. For this likewiſe beareth fruit comming out at the very ſtocke, or the maine armes and boughes thereof, when they be growne to any thickneſſe: but it putteth forth certain ſprigs without any leaves at all, and they reſemble roots. Now this tree is in bodie much like to the Poplar, but in leafe, to the Elme. It beareth fruit foure times a yeare, and as often doth it bud. But the greene figs will hang ſo ſtill and never ripen, unleſſe they be ſcarified and skiced ſo, as the milkie ſubſtance may run out. The fruit within, is made like a fig, and hath the ſame pleaſant taſt: but it is no bigger than the Sorvis.

Chap. VIII.

Of the cod or fruit called Ceraunia Siliqua, [i. Carob.]

THere is a kind of coddie ſhrub, which the Ionians call Ceraunia, not unlike to the Ægyptian Sycomore aboveſaid, for the fruit thereof commeth likewiſe forth of the ſtocke, but yet it is contained within a cod. And thereupon it is, that ſome have called it the Ægyptian fig-tree: but they are groſſely deceived. For it doth not ſo much as grow in Ægypt: but in Syria and Ionia, alſo about Gnidos and Rhodes. The tree hath greene leaves all the yeare long: it putteth forth white flowers of a ſtrong ſmell. From the root there ſpring ſhoots, and about the foot of the tree it beareth many young impes, which are ſuch ſuckers of the ſap, that they draw away all the goodneſſe, and rob the parts above of their nouriſhment, whereby the head is yellow, and nothing freſh and greene, but fadeth in the top. The fruit of the former yeare is gatherd about the riſing of the Dog-ſtarre the next yeare after: and then preſently it bringeth forth new. Afterwards commeth a bloſſome, and the fruit thriveth and waxeth all winter untill the occultation of Arcturus.

Chap. IX.

Of a tree in Ægypt called Perſica: of Cucus, and the Ægyptian thorne Acacia.

THere is found in Ægypt a certaine kind of tree by it ſelfe called Perſica, like to a Peare-tree, but that it is greene all the year long, and ſheddeth not the leaves: alſo it beareth fruit continually: for gather to day, and yee ſhall find new to morrow growing forth in the place. The fruit is ripe about the canicular daies when the Eteſian winds doe blow. It reſembleth a Peare, ſave that it is longer, and incloſed with a ſhell or greene huske like the Almond: but where the Almond hath an hard ſhell without, as a nut, this is ſoft in manner of a Peare or Plum, containing the ſtone within: and yet it differeth ſomewhat both in ſhortneſſe and tenderneſſe. The fruit is very good meat: and although the exceeding ſweetneſſe thereof entice one to eat ſtill and not give over, yet no daunger of ſurfet enſueth thereupon. As touching the wood of this tree, it is durable, hard, ſtrong, and blacke withall, in which reſpects it reſembleth the Lote-wood very much. They uſed in times paſt to make images and ſtatues thereof, not ſo beautifull altogether, nor of ſo fine a graine as ſome others; but for the timber thereof, which continueth ſure, and laſteth long, as that of the tree which we called Balanus. Much wherof doth grow curbed and crooked: and therefore is good onely for ſhipwrights to make keeles. But contrariwiſe, the wood of Cucus is highly eſteemed.

A tree this is, not unlike to the Date tree, in this regard eſpecially, that the leaves be good to twiſt and plait for mats and ſuch like: herein is the difference, for that it ſpreadeth into arms and great boughes. The fruit which it beareth, is as much as a man may well hold in his hand: of colour reddiſh or deepe ſhining yellow, and the taſt very commendable: for it yeeldeth a juice betweene ſoure and ſweet, and therefore wholeſome for the ſtomacke. The woodie ſtone within, is great, maſſie, and exceeding hard, whereof they uſe to turne for courtaine rings and ſaile pulleis. In the bellie of it there lieth a ſweet kernill, whiles it is freſh and new. But if it bee once dried, it paſſeth for hardneſſe: inſomuch as no tooth can chew it, unleſſe it be ſteeped in ſome liquor many daies before. As for the wood and timber of the tree, it hath a moſt daintie, fine, and curled graine: in which regard the Perſians ſet much ſtore by it.

In the ſame countrey there groweth a thornie plant, which the inhabitants make great account of: and eſpecially that which is in colour blacke, becauſe it will abide the water, and never rot nor putrifie in it: and therefore excellent good for the ribs and ſides of ſhips. As for the white thorn of this kind, it will ſoone corrupt and berotten. But both the one and other, is full of prickes even to the very leaves. The ſeed lieth in certain cods or huskes, wherewith curriers uſe to dreſſe their leather in ſtead of gals. The flower that this thorne beareth, is beautifull, whereof folke make faire guirlands and chaplets; profitable alſo beſides and good for many medicines. Out of the barke of this tree there commeth a gum likewiſe. But the cheefeſt commoditie and profite that it yeeldeth is this, Cut it down when you pleaſe, it will be a big tree againe within three yeares. It

groweth

groweth plentifully about Thebes in Ægypt, among Okes, Olives, and Peach-trees, for the ſpace of three hundred ſtadia from Nilus: where the whole tract is all woods and forreſts, and natheleſſe well watered with fountaines and ſprings among.

Chap. X.

Of the Ægyptian Plum-tree, and other trees about Memphis.

IN thoſe quarters groweth likewiſe the Ægyptian Plum-tree, not unlike to the thorne of Acacia next before deſcribed: and this bringeth forth a fruit as big as a Medler, which never is ripe before mid-winter, when the daies be at ſhorteſt. The tree is alwaies greene, and ſheddeth not the leaves all the yeare long. Within the fruit aforeſaid, there is a big ſtone: but the ſubſtance otherwiſe and bodie thereof is naturally ſo good, and ſo plenteous withall, that the inhabitants make their harveſt of it. When they have gathered it, they cleanſe it, ſtampe it, make it up into bals and lumpes, which they preſerve and keepe. The countrey about Memphis in times paſt, was all woodie and full of forreſts, wherein grew ſo mightie big trees, that three men were not able to fatham them about. But among the reſt there was one by it ſelfe moſt wonderfull, not for any ſtraunge fruit that it bare, nor yet for any ſingular uſe or emploiment: but in regard of an accident obſerved in it, and a ſpeciall qualitie that it had. For the tree (forſooth) outwardly reſembleth a thorne, but the leaves are made like feathers for all the world. Let a man ſhake the boughes never ſo little, ſhead they will and fall incontinently, but ſoone after there ſpring up new in their ſtead.

Chap. XI.

Sundrie ſorts of gum. Alſo of the cane Papyrus.

THe beſt gum in all mens judgement, is that which commeth of the Ægyptian thorne Acacia, having veines within of checker worke, or trailed like wormes, of colour greeniſh, and cleare withall: without any peeces of barke intermingled among, and ſticking to the teeth as a man cheweth it. A pound thereof is commonly ſold at Rome for three deniers. The gum that iſſueth from the bitter Almond trees and the Cherie-trees is not ſo good: but the worſt of all is that which the Plum-tree yeeldeth. There runneth likewiſe out of vines a certaine gum, which is paſſing good for the bleach, ſcabs and ſcals in little children. And otherwhiles yee ſhall find ſome in Olive trees: and that cureth the tooth-ach. Moreover, the Elme growing upon Corycus, a mountaine in Cilicia, and the Iuniper there, have a gum, but good for nothing. As for that of the Elme, it breedeth gnats there. Moreover, of Sarcocolla, [a tree this is, ſo called] there diſtilleth a gum of that name, which painters and Phyſicians both, have great uſe of. Like it is to Manna Thuris, which is the powder of Incenſe: and therefore the white is better than the red. Sold it is at the ſame price that the other abovenamed. And thus much concerning the trees growing upon mountaines and plaines.

Now albeit we are not entred yet into the treatiſe of thoſe plants and ſhrubs which grow either in mariſh grounds, or by river ſides: yet before we depart out of Ægypt, wee muſt not forget the plant Papyrus, but deſcribe the nature thereof, conſidering, that all civilitie of this our life, the memoriall and immortalitie alſo of men after death, conſiſteth eſpecially in paper which is made thereof. *M. Varro* writeth, that the firſt invention of making paper was deviſed upon the conqueſt of Ægypt, atchieved by *Alexander* the great, at what time as he founded the citie Alexandria in Ægypt, where ſuch paper was firſt made. For before that time there was no uſe at all (ſaith he) of paper: but men uſed to write in Date tree leaves firſt, and afterwards in the rinds and barkes of certaine trees. Then in proceſſe of time they began to regiſter publicke records in rols & ſheets of lead: and ſoone after private perſons ſet downe their owne affaires in linnen bookes, or els in tables covered with waxe. For wee read in *Homer*, that before the war of Troy there was uſe of writing tables. And at the very time when he wrate, Ægypt was not all continent and firme land, as now it is. For, as he ſaith, all the Papyrus wherof the paper is made, grew in that arm or branch of the river Nilus which anſwereth onely to the tract or territorie within the jurisdiction Sebennitis: but afterwards that part alſo was laid to Ægypt, by the ſhelves and bankes made with the innundation of the ſaid river. For, from the Iſland Pharos, which now joineth cloſe unto Alexandria,

dria by a bridge or narrow cauſey betweene, it was a day and nights ſailing, with a good forewind at the poupe unto the maine land, as *Homer* hath reported. But afterwards, as *Varro* hath written, by occaſion of a certaine envious ſtrife and emulation that aroſe betweene one of the *Ptolomees* king of Ægypt, & *Eumenes* king of Pergamus, about the erecting of their great Libraries; when *Ptolomæus* ſuppreſſed and kept in all the paper made in Ægypt, there was parchment deviſed by the ſaid *Eumenes* to be wrought at Pergamus, of skins. And finally, the uſe was commonly taken up of both, to wit, Paper and Parchment, which continueth the perpetuitie and everlaſting remembrance of men, and their affaires. But to returne unto our plant Papyrus, it groweth in the mariſhes of Ægypt, or els in the dead ſtanding waters of Nilus, namely, in certaine plaſhes and pits whereas the water did overflow, and remained ſtill after the river was fallen and down again: and namely, ſuch holes and ditches which are not above two cubites deepe. The root is wrythen and crooked, of the thickneſſe of a mans arme: and the ſcape or ſtalke that ariſeth from it, hath three ſides with three corners triangle-wiſe, not above ten cubites in heigth, growing taper-wiſe, ſmall and ſharpe in the top, where it beareth an head encloſed and round, in manner of a cabbage. Howbeit, no ſeed it carieth within: neither ſerveth the flower for any purpoſe but onely for chaplets to adorne the images of the gods. The inhabitants of Ægypt doe uſe the root in ſtead of wood, not for fewell onely, but alſo to make thereof ſundrie veſſels and utenſils in an houſe. The very bodie and pole of the Papyr it ſelfe, ſerveth very well to twiſt and weave therwith little boats: and the rinds therof be good to make ſaile-clothes, curtains, mats, and coverlets, clothes alſo for hangings, and ropes. Nay, they uſe to chew and eat it both raw and ſodden: but they ſwallow the juice onely downe the throat, and ſpit out the groſſe ſubſtance. Moreover, there is Papyrus found in Syria, about that very lake and meere whereas the ſweet Calamus abovenamed doth grow. Neither uſed king *Antigonus* any other ropes about the tackling of his ſhips, but ſuch as were made hereof. For as yet, the uſe of Spartum was not common. Moreover, it is not long ſince, that there was found growing in Euphrates about Babylon, this plant Papyrus; and knowne to ſerve for Paper, as well as the other in Ægypt. And yet for all that, the Parthians will not leave their old cuſtome to weave and purfle letters in their cloths, after the manner of embroderie. Now as touching the writing Paper made of Papyrus. After that they have cut it into certaine trunkes, as long or as ſhort as the ſize of their Paper, they doe devide and ſlive it with the point of a needle or bodkin for the purpoſe, into very thin plates or leaves, but they drive them as broad and large as poſſibly they can.

Chap. xii.

Of divers kinds of Paper: and how writing Paper is made: alſo the triall of good or bad Paper: and the glue or paſt belonging thereto.

THe beſt ſheets or leaves of Paper bee thoſe which are fet out of the very middeſt and heart of the ſtem or ſtalke of Papyrus: and ſo conſequently better or worſe, according as they be nearer or farther from it. In auncient time the principall Paper and the largeſt, was called Hieratica, [i. ſacred or holy] becauſe it was emploied onely about religious & divine bookes. But afterwards the flatterers of the Emperour *Auguſtus*, named thoſe of the beſt ſort Auguſtæ: like as the ſecond Liviæ, after the name of his wife. And hereupon it came, that the Paper Hieratica was ſet in a third ranke. Next to them in goodneſſe was reputed the Paper Amphitheatrike, which name was given unto it of the place where it was made. The polliſhing and trimming of this Paper, *Fannius* tooke in hand, who ſet up a ſhop at Rome for the ſelling of it: and ſo skilfull was he and curious in the handling and dreſſing thereof, that by the time hee had done withall and brought it to a perfect fineneſſe, he made the ſame of a courſe and common Paper to bee roiall and fit for the beſt perſons that ſhould uſe it: in ſuch ſort, as there was none in any requeſt to ſpeake of, but it: & called after his name it was, Fanniana. As for that which paſſed not through his hands, nor had his workmanſhip, it retained ſtill the old bare name Amphitheatrica. After this kind of Paper, followed that which they called Saïtica, of a towne or citie in Ægypt, where great abundance was made thereof with the courſer peeces and refuſe of the ſaid Papyrus. And yet there was another Paper, to wit, Taniotica, ſo called of a place neare adjoining; and made of the groſſer part neare to the barke & the outſide: and this they ſold for the weight, and no other goodneſſe that it had beſides. As for the merchant Paper or ſhop-paper, called Emporetica, it

was

was not for to write in, onely it ſerved as waſt Paper for ſarplers to wrap and packe up wares in: alſo for coffins or cornets to lap ſpice and fruits in, and therupon merchants and occupiers gave it that name. And with this, the very cane it ſelfe is to be ſeene clad outwardly: and the utmoſt coat thereof is like to a reed or bulruſh, fit for no purpoſe but to make cardage of: and not very good for that uſe neither, unleſſe it be for the water onely, which it will abide very well. Now the making of all theſe Papers, was in this ſort, namely, upon a broad bord wet with the cleare water of Nilus. For the fattie and muddie liquor thereof ſerveth in ſtead of glew, wherewith at the firſt the thin leafe of the cane Papyrus, ſlived from the reſt, and laid upon the bord to the full length (in manner of the warpe) according as the trunk will give leave, being cut off at both ends, namely, toward the top and the root, is wet and beſmeared: then is there another laid overthwart it, after the order of the woofe, with a croſſe graine to the other: and ſo is the web (as it were) of the Paper performed. Preſſed afterward it is in certaine preſſes, that both leaves may ſtick together: and then the whole ſheets are dried in the Sunne. VVhich done, they bee ſo couched together, that the beſt and largeſt lie firſt, and ſo conſequently in order as they be worſe and of leſſe ſize, untill you come to the worſt. And one ſcape or trunke lightly of the cane Papyrus, yeeldeth not above twentie ſuch ſheets. Great difference there is in them for the breadth, notwithſtanding the length be all one. The beſt, namely which were taken out of the heart of the cane, beare thirteen fingers in breadth. The Hieratica Paper wanteth two of that number. The Fannian is but tenne fingers broad. The common Paper Amphitheatrica, but nine. Saïtica yet fewer, and will not beare the ſtroke of the hammer. And as for the merchants Paper, it was ſo ſhort and narrow, that it went not above ſixe fingers. Moreover, in Paper theſe foure things muſt bee conſidered, that it be fine, well compact, white, and ſmooth. Howbeit, *Claudius Cæſar* the Emperour abated the credite of the Paper Auguſta, that it was no more accounted the beſt: for indeed ſo thin it was, that it would not abide the dent of the pen: beſides, it would not hold inke, but ſhew the letters on the other ſide; and was evermore in daunger of blurring and blotting, eſpecially on the backe part: and otherwiſe, unſightly it was to the eie, for that a man might ſo eaſily ſee through it. And therefore hee deviſed to fortifie and ſtrengthen the ſaid Paper, and laid another courſe or coat (as it were) over the former, in manner of a double woofe. Hee enlarged alſo the breadth of the Paper: for he cauſed it to be a foot broad, yea, and ſome a foot and an halfe, I meane that kind which was called Macrocola, or large Roiall Paper. But herein was a fault, & reaſon found it out: for if one leafe of this large Paper were plucked off, the more pages tooke harme thereby, & were loſt. And therfore the former Claudian Paper, which had but three leaves of Papyrus, was preferred before all the reſt. Howbeit, that which was named Auguſtane bare the name for letters miſſive, and the Liviane continued ſtill in the owne credite, having no propertie of the firſt and principall, but all in a ſecond degree. The roughneſſe of Paper is polliſhed and ſmoothed either with ſome tooth, or els with a Porcellane ſhell: but the letters in ſuch ſlicke Paper, will ſoon fade and decay. For by the polliſhing, it will not receive the inke ſo deepe as when it is not ſmoothed, although otherwiſe it will ſhine the better. Moreover, it falleth out many times, that if the humor be not artificially laid, the Paper is very ſtubborne: but this fault is ſoone found at the very firſt ſtroke of the hammer, or els diſcovered by the ſmell, eſpecially if good heed were not taken in the tempering thereof. As for the ſpots & ſpeckles, the eie will quickly ſpie them: but the long ſtreaks and veines lying cloſe couched betweene the paſted places, can hardly be diſcerned before that the letter runneth abroad, and ſheweth how in the ſpongeous ſubſtance of the Paper wanting that paſt, the inke will ſinke through, and make blots; ſo deceitfull is the making of this Paper. What remedie then? but to be at a ſecond labour to paſt it new againe another way, to wit, with the common paſt that we uſe, made with the fineſt flower of wheat, and tempered with hote ſcalding water, and a little vinegre mingled therewith. For the joiners glue and that made of gums, is brittle, and will not abide the rolling up of theſe ſheets into quiers. But they that will go more ſurely to worke, and make an exquiſite paſt indeed, boile the ſoft and tender crums of leavened bread in ſeething water, & then let it run through a ſtrainer, which they uſe to this purpoſe. For beſides that the Paper hereby will be more firme, and have leſſe flawes, it ſurmounteth alſo in ſweetneſſe the water of Nilus. Moreover, all kind of paſt whatſoever, for this effect, ought neither to be ſtaler than a day old, nor yet freſher and under that age. After that it is thus paſted, they beat it thin with the hammer: and a ſecond time runne lightly over with new paſt: and then being thus knit and bound faſt againe, it is made ſmooth and void of wrinckles, and finally beaten even with

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the hammer, and driven out in length and breadth. After this manner was that Paper made, wherein were written the bookes and records of the two *Gracchi*, *Tiberius* and *Caius*, with their owne hands, long agoe: the which I saw in the house of *Pomponius Secundus*, a noble cittizen of Rome, and a renowmed Poet, almost two hundred yeares after their death. As for the writings of *Cicero*, of *Augustus* late Emperour of famous memorie, and of *Virgill*, wee daily see and handle them, by the meanes of Paper so good and durable.

Chap. xiii.

Of the bookes of Numa.

WE find many examples in stories, which very directly and mightily doe testifie against *M. Varro*, as touching Papers. For *Cassius Hemina* (a most faithfull and auncient writer) in the fourth book of his Annales, hath reported, That one *Cn. Terentius* a scribe or publick Notarie, as he digged and delved in a ground which he had neare to Ianiculum, light upon a chist, wherein lay the bodie of *Numa*, sometime king of Rome. In the same also were found the bookes of the said king. And (as he affirmeth) this happened in that yeare, when *Pub. Cornelius* the sonne of *Lucius*, surnamed *Cethegus*, and *M. Bœbius* sonne of *Quintus*, surnamed *Pamphilus*, were Consuls of Rome: betweene which time and the raigne of *Numa*, by just computation are reckoned 535 yeeres. He saith moreover, That those books were made of the Paper abovenamed. The greater wonder it was, how such kind of bookes should last so long, especially within the earth, and not putrifie? The thing therefore being so strange, and in manner miraculous, that Paper should continue all that time, I thinke it not amisse to set downe the very words of *Hemina* himselfe, as he delivereth them. The world made a wonder (quoth he) how those books could possibly endure so many yeares? but the partie who found them yeelded this reason: That within the said coffer about the middest of it, there was a stone foure-square, lapped all about and bound every way with [waxe] candles in manner of a serecloth: upon which stone, the foresaid books were laid: and therfore it was (as he supposed) that they did not rot. Moreover, the books also were embaulmed with the rosin or oile of Cedar, which might be a good reason in his conceit, that the moths came not to them. Now these books contained the Philosophie and doctrine of *Pythagoras*: and for that they treated of that Philosophicall argument, burnt they were, by order from *Q. Petilius* the Pretour for that time being. The same storie in effect doth *C. Piso Censorinus* (a man who had been Censor) report in the first booke of his Commentaries: howbeit, he setteth downe their number withall: and saith they were foureteene in all, whereof seven treated of the Pontificall law, and matters of religion; and as many discoursed of *Pythagoras* his Philosophie. But *Tuditanus* in the thirteenth booke of the Annales affirmeth, That they were the decretals onely of *Numa*, and contained his ordinances. As for *Varro* himselfe, he writeth in the fift booke of Humane Antiquities, that they were in all but twelve. And *Antias* in his second booke reporteth, That two of them were written in Latine, and contained the Pontificiall divinitie and church-matters: and other twaine penned in Greeke, were full of precepts in Philosophie. He also affirmeth in his third booke, for what cause the said bookes by vertue of a publicke decree were consumed with fire. But all Historiographers agree in this, That one of the *Sibyls* brought unto *Tarquinius* the prowd three books: of which, two were burnt by her own selfe: and the third likewise perished with fire, together with the Capitoll, during the troubles of *Silla*. Over and besides, *Mutianus*, a man who had ben thrice Consull of Rome, hath left upon record, that of late, while he was lord governour of Lycia, hee red in a certaine temple an Epistle written by prince *Sarpedon* in Paper, and bearing date from Troy. And I wonder the rather at this, if so be that when *Homer* lived and wrate his Poëme, there was no land of Ægypt as now there is: or why, in case there was such use of Paper then, himselfe should write, that in the very same Lycia, *Bellerophon* had writing tables given him to deliver as touching his owne death, and not rather letters missive written in Paper? Well, howsoever that bee, this is certaine, that there is a scarsitie otherwhiles of Paper also, as well as of other commodities: and this cane or reed Papyrus doth many times faile. For not long since, even in the daies of *Tiberius* the Emperor, in a dearth and want of Paper, there were commissioners deputed and appointed by the Senate of Rome, for the dispensing and distribution of it among the people: otherwise there had been a great mutinie and tumult at Rome about Paper.

*L. Petilius. Livie.

Chap.

Chap. xiiii.

Of the trees in Æthiopia.

AS touching Æthiopia, and namely that quarter which confineth upon Ægypt, it hath in manner no trees at all of any name, ſave thoſe that beare woollor cotton: concerning the nature of which trees, we have ſufficiently ſpoken in the deſcription of the Indians, and of Arabia: and yet in very truth, the cotton that is brought from theſe trees in Æthiopia, commeth nearer to wooll than any thing els; howſoever the trees be otherwiſe like to the reſt of that kind: and the burſe or cod wherein this woollie ſubſtance lyeth, is greater, and as big as a Pomegranat. Beſides theſe, there be Date trees alſo, like to ſuch as we have before deſcribed. As touching other trees, and eſpecially the odoriferous woods within the Iſles that lie upon Æthiopia round about, we have ſaid enough in the treatiſe of thoſe Ilands.

Chap. xv.

Of the Trees growing in mount Atlas: of Citron tables: of the commendable perfections, and contrariwiſe of the defaults thereof.

THE mountaine Atlas (by report) hath a wood in it of peculiar trees that elſewhere grow not, wherof we have alreadie written. The Mores that border upon it, are ſtored with abundance of Citron trees: from whence commeth that exceſſive expenſe and ſuperfluitie about Citron tables made thereof. And our dames and wives at home (by way of revenge) uſe to twit us their husbands therewith, when we would ſeeme to find fault with the coſtly pearls that they doe weare. There is at this day to be ſeene a board of Citron wood, belonging ſometimes to *M. Tullius Cicero*, which coſt him ten thouſand Seſterces: a ſtraunge matter, conſidering he was no rich man: but more wonderfull, if wee call to mind the ſeveritie of that age wherein hee lived. Much ſpeech there is beſides of *Gallus Aſinius* his table, ſold for eleven thouſand Seſterces. Moreover, there are two other, which K. *Iuba* ſold: the one was priſed at 15000 Seſterces, and the other held little under. Not long ſince, there was one of them chaunced to be burnt, and it came with other houſhold ſtuffe but from the cottages in Mauritania, which coſt 140000 Seſterces: a good round ſumme of money, and the price of a faire lordſhip, if a man would be at the coſt to purchaſe lands ſo deare. But the faireſt and largeſt table of Citron wood, that to this day hath beene ſeene, came from *Ptolomæe* king of Mauritania, the which was made of two demie-rounds or halfe circles, joyned togither ſo artificially, that for the cloſeneſſe of the joynt (which could not be diſcerned) it was more admirable than poſſibly it could have beene if it had beene naturally of one entire peece: the diameter of it caried foure foot and a halfe, and three inches thicke it was. Likewiſe another ſuch table there was, ſurnamed Nomien, of one *Nomius* a ſlave, enfranchiſed by *Tyberius* the Emperour: the ſquare or diametre whereof, was foure foot within three quarters of an inch; and the thicknes halfe a foot lacking ſo much. And here I cannot forget and overpaſſe, how that the Emperour *Tyberius* himſelfe had a table, which being two inches & three quarters above four foot in the diametre, & an inch and an halfe thick throughout, he cauſed to be plated all over, for that *Nomius* his freed ſervant had one ſo rich and magnificent, made altogither of a knot: a knot (I ſay) or a knur in the root of the tree, which is the very beautie of the wood, and giveth all the grace to the tables made therof; and namely, if this knot lie altogither within ground, it is without compariſon excellent, and farre more rare and ſingular than any of the timber above, either in the trunke and bodie, or in the armes and boughes of the tree. So that (to ſay a truth) this coſtly ware bought ſo deare, is no better than the ſuperfluous excreſcenſe of trees: the largeneſſe whereof, as alſo of their roots, may be eſteemed by the roundnes that they carrie. Now are theſe Citron trees much like to the female Cypreſſe (eſpecially that of the wild kind) in leafe, in ſmell, and in bodie. A mountaine there is in high Mauritania, called Anchorarius, which was wont to yeeld the beſt and faireſt Citron trees, although now it be naked and deſpoiled of them. But to return to our tables aforeſaid; the principall be they which are either criſped in the length of the veine, or beſet here and there with winding ſpots. In the former, the wood curleth in and out along the graine; and therefore ſuch be named Tigrinæ, [*i.* Tigre-tables.] In the other, there be repreſented ſundrie tufts as it were enfolded

folded and enwrapped round, and thoſe they call Pantherinæ, [i. Panther, or Luzerne tables.] There be againe, whereof the worke in waineſcot reſembleth the waves of the ſea: and the better grace they have, and bee more eſteemed, if they make a ſhew of the eies appearing in Peacockes tailes. Next in requeſt and account to theſe abovenamed, bee thoſe that are friſled with ſmall ſpots ſtanding thicke, as if many graines were gathered together, which they call thereupon (of ſome reſemblance of litle bees or flies) Apiatæ, as if they were ſpeckled and filed with their dung. But be the worke and grain of the wood what it will, the colour maketh all. Here at Rome wee ſet moſt ſtore by that colour which is like to mead or honied wine, ſhining and glittering in the veines of the wood. After which conſiderations, men regard much the breadth and largenes of the whole plant, ſtanding of one entire peece which maketh the table. Some take a great pleaſure to ſee in one Citron bourd many of thoſe faults which bee incident to trees, to wit, the Lignum, for ſo they call the ſimple, plaine, and bare wood and timber without any branched or curled graine at all, without a ſhining luſtre and glittering gloſſe, without worke to be ſeene in any order digeſted, or at the moſt (if any bee) repreſenting the leaves of a Plane tree. Againe, the reſemblance either of the veine or colour of a kind of Oke wood called Ilex. Moreover, the rifts and chinkes which timber is ſubject unto, by reaſon principally of wind and Sunnes heat: or elſe hairie ſtreakes that be like to ſuch clifts and creviſſes. Afterwards men were delighted with a kind of Lamprey veine traverſing and running over a blacke croſſe way: and with an outward skin or coat marked with ſpeckes or knottie knurs, like to Poppie heads: and generally with a colour all over, comming neare to blacke, or at leaſtwiſe beſpotted with ſundrie colours. The Barbarians for to ſeaſon the wood of this Citron tree, uſe to burie the greene bourds or plankes thereof within the ground, and beſmeare them all over with waxe. But the artificers and workemen doe put them for ſeven daies within heapes of corne, and ſtay ſeven daies more ere they be wrought: and a wonder it is incredible, how much of the weight the wood loſeth by this meanes. Moreover, of late daies wee have found the experience by ſhipwrackes, that this timber alſo will by nothing in the world be ſooner dried nor hardened to laſt a long time without corruption, than by ſea water. Howbeit, to maintaine theſe tables beſt, and to cauſe them for to ſhine bright, the way is to rub them with a drie hand, eſpecially after that a man is newly come out of the baines or hot houſe. Neither catch they any harme or ſtaine, if wine bee ſpilt thereupon: ſo as it ſhould ſeeme they were naturally made for wine. To conclude, a tree this is ſerving for the ornaments of this life, and the trim furniture of our houſe, few or none like to it: and therfore me thinks I do not amiſſe to continue the diſcourſe thereof ſomewhat longer than ordinarie.

Chap. xvi.

Of the tree Thya, what it is.

WEll knowne unto *Homer* was this Tree, which in Greeke is named * Θύον, but ſome call it Thya: for among other daintie odors and ſweet woods, he reporteth, That dame *Circe* (whome he would have to be reputed as a goddeſſe) burnt of this Thyon. And therefore much deceived are they, who underſtand by that word Thyon, perfumes and odoriferous ſpice, conſidering that in one and the very ſame verſe, the Poët maketh mention of the Cedar and Larch tree togither with Thyon, whereby it appeareth plaine, that he ſpake of trees only. *Theophraſtus*, who after the daies of *Alexander* the Great, was the firſt that wrate the hiſtory of thoſe acts which happened about the 440 yeere from the foundation of Rome, gave great honour even then to this Tree, and reported, That all carpenters worke of temples in old time, was made of the ſame; as of a timber everlaſting, and which in roufes would continue without all putrefaction and corruption whatſoever. Moreover, he writeth, That the wood of the root is ſo curled and friſled, as none more; and that of no timber beſides are more curious peeces of workes made, nor of greater price. Over and beſides, he ſaith, That the faireſt and goodlieſt trees of this kind, doe grow about the temple of *Iupiter Hammon*: and ſome of them alſo within the countrey Cyrenaica toward the inland parts. But all this while not a word of the foreſaid coſtly tables ſpeaketh he in his whole hiſtorie: and verily before that of *Ciceroes*, there is no record in writers of any ſuch tables: whereby it appeareth, that they be come up but of late daies. Another tree there is likewiſe of that name, bearing an apple or fruit, which ſome cannot abide for the ſtrong ſavour and bitternes withall, others againe like and love it as well. This tree alſo beautifieth and ſetteth out the houſe, but I purpoſe not to beſtow many words more thereof.

Chap.

Chap. xvii.

Of the tree Lotus.

IN the ſame coaſt of Affrick which regardeth Italie, there groweth Lotos, which they call Celtis. A notable tree it is and of ſpeciall marke: found alſo here among us now in Italy, but togither with the ſoile, it hath chaunged the nature. The faireſt and goodlieſt of them be about the Syrtes and the Naſamones: they be as big and tall as Peare trees, howſoever *Nepos Cornelius* ſaith, they are but little and low. The leaves bee thicke cut and endented: otherwiſe they were like to thoſe of the Ilex or Holme tree. Many ſorts there be of the Lote tree, and thoſe for the moſt part according to their divers and ſeverall fruits. Howbeit ordinarily the fruit is as big as a Beane, and of yellow colour as Saffron; yet before it is full ripe, it chaungeth into ſundry colors, like as grapes doe. It groweth thicke among the branches of the tree, in manner of Myrtle berries, and not like to the cherries of Italie: and in thoſe plants above named, the meat thereof is ſo ſweet and pleaſant, that it hath given the name both to a nation and a countrey, inſomuch as the people be called Lotophagi: and withall, ſo welcome be all ſtraungers thither, and ſo well contented with their entertainment, that they forget their own native ſoile, for the love they have to this fruit, when they have once taken to it. By report, whoſoever eateth thereof, is free from the diſeaſes of the bellie. This fruit is counted the better, which hath no kernell within; for there is another kind wherein the ſaid kernell ſeemeth as hard as a bone. Moreover, out of this fruit there is preſſed a wine like to Mede, which the above-named *Nepos* ſaith, will not laſt above ten daies: who reporteth beſides, That the inhabitants doe ſtampe the berries thereof with wheat or frumentie into a paſt, and ſo put it up in great barrels and ſuch like veſſels for the proviſion of their food. Moreover, we have heard ſay, that whole armies paſſing too and fro through Affrick, have fed thereof, and had no other meat: the wood is blacke of colour, and much ſought for it is to make Pipes and Fifes: of the root thereof, the hafts of daggers and knives be made, beſides other pretie deviſes of ſmall uſe. Thus much as touching the nature of the Lote ttee in thoſe parts: for there is an hearb alſo of that name [called Melilote.] As for the Ægyptian Lotus it is a plant bearing a ſtalke, and groweth in the mariſhes of Ægypt. For when the waters of Nilus are falne, which drenched the countrey, this plant commeth up in the flat & waterie levell along the river, with a ſtemme like unto the [Ægyptian] Beane, with leaves thruſt cloſe and thicke togither, howbeit ſhorter and leſſe than thoſe of the Beane: in the top of which ſtalke, it beareth fruit in manner of an head, for cuts and chamfres and every thing elſe like to thoſe of the Poppie: within which, there be conteined certaine graines or ſeeds reſembling Millet. The inhabitants of that countrey doe pile togither in heapes, thoſe heads, and ſo let them putrifie: afterwards, they ſeparate them, waſh them faire, and when they be drie, ſtampe and mould them, and thereof make their bread. A ſtraunge and wonderfull thing it is that is reported beſides; namely, That when the Sunne goeth downe, thoſe heads cloſe up and be covered with leaves, and remaine ſhut untill the morning; at what time they open againe: and thus continue this courſe untill they be ripe, and that the flower which is white, doth fall of it ſelfe.

Chap. xviii.

Of the very ſtalke, ſcape or ſtemme, and root of Lotus.

IT is ſaid moreover as touching this Ægyptian Lotus, that in Euphrates the very head of the ſtalke together with the flower, uſeth in the evening to be plunged and drowned under the water untill midnight, and ſo deepe to ſettle toward the bottome, that a man with his hand cannot reach thereto, nor find any part of it: but after that time, it beginneth to riſe by little and little, and by Sun-riſing appeareth above water, and openeth the flower, & ſtill mounteth higher and higher a good height from the water. This Lotos hath a root as bigge as a Quince, covered with a blacke rind or barke, much like to the huske of a Cheſtnut. The ſubſtance within, is white and delectable to eat, but more pleaſant beeing either ſodden in water, or roſted under embres, than raw: and Hogs will feed fat with nothing better, than with the pills and parings of this root.

Chap. xix.

Of Paliurus, the Pomegranate, and the flower of the Pomegranate.

THe region Cyrenaica in Affricke, maketh more account of their Paliurus than of Lotus: for the Paliurus ſhooteth forth more twigs and braunches, and hath a redder fruit than the Lotus. Beſides, the fruit and the kernell be eaten apart: and in truth, pleaſant it is of it ſelfe alone, but more pleaſant with wine; yea and the juice thereof giveth a better taſt to wine, if it be put into it. The inland parts of Affricke (as farre as to the Garamants and the deſerts) bee well planted with Date trees faire and great, bearing goodly and pleaſant Dates, and thoſe eſpecially in that quarter of Barbarie which lieth about the temple of *Iupiter Hammon*. But the territorie of Carthage challengeth to it ſelfe the Punicke apple: ſome call it the Pomegranat: and they have made ſeverall kindes thereof, calling that Apyrinon, which hath no woodie or hard kernell within: and indeed, theſe Pomegranats are naturally more white, the graines within more pleaſant, and divided with membranes and pellicles betweene, nothing ſo bitter as the other: for in both ſorts they bee framed and faſhioned within, like to honey-combes. As for thoſe Pomegranates which have ſuch kernels or ſtones, there bee five kinds of them, to wit, ſweete, ſower, temperate betweene both, ſtypticke or auſtere, and taſting of wine. But the Pomegranats of Samos and Ægypt, have this difference one from another, That ſome have red flowers on the head, and be therefore called Erythrocoma: others are white, and ſuch they name Leucocoma. The rind of ſower Pomegranats, is better for tanners and curriours to dreſſe their leather with, than of the reſt. The flower is called Balauſtium, both medicinable and alſo good for to die cloth; and hereof commeth the colour Puniceus [*i.* a light red or a bay] taking the name of the apple Punicke or Pomegranate.

Chap. xx.

Of the Shrubs in Aſia and Greece.

IN Aſia and Greece there grow certaine ſhrubs, to wit, Epipactis, which ſome call Elleborine, with ſmall leaves, which being taken in drinke are good againſt poiſon, like as the leaves alſo of *Erice withſtand the ſtinging of ſerpents.

* i. Heath, or Lings.

Chap. xxi.

Of Thymelæa or Chamelæa, Tragacanth, of Tragium or Scorpio. Alſo of Myrice, Brya, and Galla.

THe ſhrub or buſh which beareth the graine Gnidium, that ſome call Linum, is after ſome writers named Thymelæa, according to others Chamelæa: there bee that call it Pyrosachne: ſome againe give it the name of Cneſton, others of Cneoros. This plant howſoever it be named, reſembleth the wild olive, but that the leaves be narrower and gummie to the teeth, if a man bite them: for height and bignes anſwerable to the Myrtle: the ſeed thereof is for colour and faſhion, like to the graine of wheat, and ſerveth onely for Phyſicke.

As touching the plant Tragium, it is to be found in the Iland Candie only. It hath a reſemblance of the Terebinth, like as the ſeed alſo, which (by report) is moſt excellent and effectuall to heale wounds made by darts or arrowes. The ſame Iland hath the buſh Tragacanth growing in it, the root whereof is like to that of Bedegnar: and the ſame Tragacanth is much preferred before that which groweth either in Media or Achaia. A pound of Tragacanth is worth thirteen deniers Romane. As for the plant Tragium or Scorpio, it groweth likewiſe in Aſia. A kind of bramble or brier it is without any leaves, bearing fruit of berries much like to red grapes, wherof there is good uſe in Phyſicke.

Touching Myrice, which others call Tamarix; and Achaia Brya the wild; Italie bringeth it forth: this ſpeciall propertie it hath, that the tame kind therof only, namely that which groweth in gardens, beareth a fruit like the galls. In Syria & Ægypt this groweth plenteouſly, & the wood thereof we call Vnhappie: but the more unluckie & unfortunate be thoſe of Greece: for there groweth Oſtrys, named alſo Oſtrya, a ſolitarie tree about waterie and moiſt rocks, having barke

and

A and braunches like to the Ash, but Peare-tree leaves, save that they be somewhat longer & thicker, with long cuts or lines wrinkled and riveled throughout: and the seed in forme and colour is like to barley. The wood of it is hard and strong: and some say if any peece therof be brought into an house where a woman is in travaile of child-birth, shee shall have difficult labour, and hardly be delivered: and whosoever lyeth sicke there, shall die a miserable death.

Chap. xxii.

Of Euonymus or the Spindle tree of Adrachne, Congygria, and Thapsia.

B IN the Iland Lesbos, there groweth a tree named Euonymos, no better nor more luckie than Ostrya beforesaid. Much unlike it is not to the Pomegranate tree. As for the leafe that it beareth, it is of a middle size betweene that of the Pomegranat and the Bay; otherwise for shape and softnesse, it resembleth that of the Pomegranat: the flower is whiter; the smell & taste whereof is pestiferous and menaceth present death: it beareth cods like to Sesama, within which be graines or seeds foure square and thicke, but deadly unto all creatures that eat them. The leafe also is as venimous as the graine, yet otherwhiles there ensueth thereof a fluxe and gurrie of the belly, which saveth their life, or else there were no way but one.

Alexander Cornelius called that tree * Eone, whereof the famous ship Argo was made; and like it was (by his saying) to the Oke that carrieth Misselto, the timber whereof neither water will C putrifie, nor fire consume, no more than the Misselto it selfe. But so farre as ever I could learne, no man knew that tree but himselfe. * Or, *alonia.*

As for the tree Adrachne, all the Greekes in manner take Porcellaine for it; whereas indeed Porcellaine is an hearb, called in Greeke *Andrachne*; so as they differ in one letter: but Adrachne is a tree of the wild forrests growing upon mountaines, and never in the plaines beneath; resembling the Arbut or Strawberrie tree, save that the leaves be lesse, and never fade nor fall. And for the barke, rough and rugged indeed it is not, but a man would say it were frozen and all an yce round about, so unpleasant it is to the eye.

Like in leafe to Adrachne, is the tree Congygria, but otherwise it is lesse and lower. This propertie it hath, To loose the fruit wholly, togither with the soft downe that it beareth, which they call Pappus; a qualitie that no other tree hath, beside it. Like to Adrachne also is Apharce, and beareth fruit twice in one yeere, as well as it. The former is ripe, when the grape beginneth to bud and bloom; the latter, in the beginning of winter: but what manner of fruit this should be, I have not found written.

As touching the Ferula, it will not be amisse to speake thereof among forrein plants, yea and to raunge it among trees: for (as hereafter we will distinguish in the division of trees) some plants are of this nature, To shew all the wood they have, where the barke should be; that is to say, without-forth: and where the heart of the wood ought to be, they have nought but a light and spongeous pith, as the Elder; or els nothing at all, as Canes and Reeds. But to come to our Ferula before-named, it groweth in hot countries beyond-sea, with a stalke or stem full of knottie joints. Two kinds be knowne of them: for that which the Greeks call Narthex, groweth tall; but Narthecia is alwaies low. The leaves that put forth at the joynts, be ever biggest toward the ground: this plant otherwise is of the nature of Dill, and the fruit is not unlike. There is not a plant in the world lighter than it for the bignesse: being easie therefore to weld and carrie, the stem thereof serveth old men in stead of staves, to rest upon. The seed of this Ferula or Fenell-gyant, some have called Thapsia, but herein they be deceived, for that Thapsia doubtlesse is a kind of Ferula by it selfe, leafed like Fenell, with an hollow stalke, and never exceedeth in height the length of a walking-staffe: the seed is like to that of the Ferula, and the root white: cut it, there issueth forth milke; stampe it, you shall see it yeeld plentie of juice. Neither is the barke of the root rejected and cast aside, although both it, the milke, and the juice, be very poisons: for surely the root is hurtfull to them that digge it up; and if never so little of the aire thereof breath upon them (so venomous it is) their bodies will bolne and swell, their faces will be all overrun with a wild-fire: to prevent which mischiefes, they are forced to annoint their bodies with a receit. Howbeit as dangerous as they be, Physicians make use therof in the cure of many inward diseases, so they be well corrected and tempered with other safe medicines. In like manner they say, that the juice of

Thapſia is ſingular good for the ſhedding and falling of the haire; alſo againſt the blacke and blew marks remaining after ſtripes: as if Nature furniſhed not Phyſicians ſufficiently with other holeſome remedies, but that needs they muſt have recourſe to ſuch poiſonfull and miſchievous medicines. But this is the caſt of them all, to pretend ſuch colourable excuſes, for their handling of poiſons: and ſo impudent and ſhameleſſe are ſome beſides, that they baſh not to avow the uſe of them; bearing us in hand, that Phyſicke cannot ſtand without poiſon. The Thapſia in Affricke is the ſtrongeſt of all others. Some uſe to ſlit or cut the ſtem about harveſt, and in the very root make an hollow trough to receive the juice that runneth downe, and when it is dried, they take it away. Others againe doe bruiſe and ſtampe in a mortar, both leafe, ſtalke, and root; and when the juice that is preſſed there-from, is throughly dried in the Sunne, they reduce the ſame into certaine Trochiſques. *Nero Cæſar* the Emperour in the beginning of his Empire, gave great credit unto Thapſia: for uſing (as he did) to be a night-walker, and to make many ryots and much miſrule in the darke, he met otherwhiles with thoſe that would ſo beat him, as that hee carried away the markes blacke and blew in his face: but (as he was ſubtill & deſirous to avoid the ſpeech of the people) an ointment he had made of Thapſia, Frankincenſe, and Waxe, wherewith hee would annoint his face, and by the next morning come abroad with a cleare skin, and no ſuch markes to be ſeene; to the great aſtoniſhment of all men that ſaw him. To conclude, the Ferula maketh the beſt matches to keepe fire, by all mens confeſſion: and thoſe in Ægypt excell the reſt, for that purpoſe.

Chap. xxiii.

Of Capparis, or Cynosbatos, or Opheoſtaphyle: and of Sari.

Likewiſe in Ægypt groweth Capparis, a ſhrub of a harder and more woodie ſubſtance: well knowne for the ſeed and fruit that it carrieth, commonly eaten with meats, and for the moſt part the Capres and the ſtalke are plucked and gathered togither. The outlandiſh Capres (not growing in Ægypt) wee muſt take good heed of and beware: for thoſe of Arabia be peſtilentiall and venomous: they of Affricke be hurtfull to the gumbs, and principally the Marmarike are enemies to the mattice, and breed ventoſities. The Apulian Capres cauſe vomit, and make lubricitie both of ſtomack and bellie. Some call the ſhrub Cynosbatos: others, Opheoſtaphyle. Moreover, there is a plant of ſhrubs kind, called Sari: it groweth along Nilus, almoſt two cubits high, it beareth an inch in thickneſſe, and hath leaves like to Papyr reed, and men do chew and eat it after the ſame manner. As touching the root, it is ſingular good for Smithes cole to burne in their forges, ſo hard it is and durable.

Chap. xxiiii.

Of the Royall thorne of Babylon: and of Cytiſus.

I May not over-paſſe that plant, which about Babylon is ſowed upon Thornes onely: for otherwiſe it knoweth not how to live no more than Miſſelto, but upon trees: howbeit this plant that I ſpeake of, is ſowed upon that Thorne alone called the Royall Thorne. And a ſtraunge thing it is of this plant, That it ſpringeth and groweth the very ſame day that it is ſet or ſowed. Now the ſeaſonable time of ſowing it, is at the very riſing of the Dog-ſtarre: and notwithſtanding the Sunnes heat, right quickly overſpreadeth it the tree or ſhrub, on which it is caſt. The Babylonians uſe to aromatize their wine therewith; and for that purpoſe are they ſo carefull to ſow it. But the foreſaid Thorn tree groweth alſo about the long walls of Athens [reaching from the tower to the haven Pyræum.]

Moreover, a ſhrub there is, called Cytiſus, highly commended and wondrous much praiſed by *Ariſtomachus* the Athenian, for feeding of ſheep; as alſo for fatting of ſwine, when it is drie: and he promiſeth and aſſureth, That an acre of land ſowed therewith, although it be none of the beſt ſoile, but of a meane and ordinarie rent, will yeeld yeerely [*communibus annis*] 2000 Seſtercesto the maſter. As great profit commeth thereby, as of the pulſe like Vetches, called Ervum: but ſooner will a beaſt be ſatisfied therewith, and a very little thereof will ſerve to fat the ſame: inſomuch as if horſes or any ſuch labouring cattell may meet with that provender, they will not care for barley: neither is there any other graſſe or fodders, that yeeldeth more or better milke,

milke than it: but that which paſſeth all, the paſturage of Cytiſus, preſerveth Sheepe, Goats, and ſuch like cattell, ſound and ſafe from all diſeaſes whatſoever. Over and beſides, if a nource want milke, *Ariſtomachus* preſcribeth her to take Cytiſus drie, and ſeeth it in water, and ſo to drinke it with wine: whereby not onely her milke will come againe in great plentie, but the babe that ſucketh thereof, will bee the ſtronger and taller. Hee giveth it alſo to hens and pullein whiles it is greene, or ſteeped and wet, if it chance to bee drie. *Democritus* and *Ariſtomachus* both doe promiſe and aſſure us, that Bees will never miſcarie nor faile, if they may meet with Cytiſus to feed upon. And yet there is not a thing of leſſe charge to maintaine than it. Sowne it is commonly in the Spring with Barley, I meane the ſeed thereof, as they uſe to ſow leekes or porret ſeed: or elſe they ſet plants and ſlips thereof from the ſtalke, in Autumne before midwinter. If the ſeed be ſowne, it ought to be ſteeped and moiſtened before: yea, and if there fall no ſtore of raine after it is in the ground, it had need to be watered. As for the plants when they be a cubite long, are replanted in a trench a foot deepe. Otherwhiles the tender quicksets are planted about the Æquinoxes, to wit, in mid-March and mid-September. In three years they come to their full growth. They uſe to cut it downe in the Spring-Æquinox: when it hath done flouring: a worke that a very lad or old woman may doe, even ſuch as can skill of nothing els beſides. This Cytiſus is in outward hew white: and in one word, if a man would pourtray the likeneſſe thereof, it reſembleth for all the world a ſhrub of Trifolie or Clavergraſſe, with narrower leaves. Being thus gathered, it is ever given to beaſts once in three daies. And in winter, that which is dried ought to be wet before they have it. Ten pound of it is a ſufficient foddering for an horſe: and for other ſmall cattell according to the proportion. But by the way, this is not to be omitted, that it is good to ſet Garlicke and ſow Onions ſeed betweene the rewes and rankes of Cytiſus where it groweth, and they will thrive more plenteouſly. This ſhrub was firſt diſcovered and knowne in the Iſland Cythnus, and from thence tranſlated into all the other Iſlands Cyclades: and ſoone after brought to all the cities of Greece; whereupon followed great increaſe of milke, and plentie of cheeſe. I marvell therefore very much, that it is ſo geaſon and rare in Italie: and a plant it is that feareth neither heat nor cold; no injurie of haile, nor offence by ſnow; and as *Hyginus* ſaith, it is not afraid ſo much as of the enemie; the reaſon is, becauſe the wood thereof is nothing beautifull to the eie.

Chap. xxv.

Of ſhrubs and trees growing in our Mediterranean ſea, in the red ſea, and the Indian ſea.

EVen the very ſea affourdeth ſhrubs and trees: but thoſe of the Mediterranean ſea bee farre leſſe than of other ſeas: for the red ſea and all the Levant Ocean is full of woods. That which the Greekes call φῦκος, hath no other name in any language. As for Alga, is a word appropriate rather to weeds or ſea-hearbes, called Reik: but this Phycos is a very ſhrub, bearing broad leaves of a greene colour, which ſome call Praſon, others Zoſter. A ſecond kind there is of Phycos, with an hairie leafe like to Fennell, and groweth upon rockes. As for the former called Zoſter, it is found among the ſhelves and ſhallow waters not farre from the ſhore: both the one and the other appeare in the Spring, and be gone in the Autumne. That of this kind which groweth in Candie about the rockes, is much uſed of diers for the purple colour: and namely, on the North part of that Iſland, and among ſponges, for that is moſt commendable for this purpoſe. A third ſort there is like unto the graſſe called *Goich* or *Dent-de-chien*, having a root full of joints and a ſtalke likewiſe, in manner of a reed.

Another ſhrub there is in that ſea called Bryon, with leaves of Lettice, ſave onely that they be more wrinckled and crumpled together: but this groweth more inward and farther into the ſea. Marie in the deepe, groweth both Firre and Oke to the height of a cubite. Among theſe braunches, the Cockles and Muskles, and ſuch like ſhell-fiſhes doe ſettle and ſticke unto them. As for that kind of ſea Oke, ſome ſay it is of good uſe to die wooll withall: as alſo that it beareth maſt or acornes in the deepe: the knowledge of all which we come unto by thoſe that dive into the bottome of the ſea, and ſuch as have ſuffered ſhipwracke and eſcaped. Moreover (by report) there be other exceeding great trees, and namely about Sycione. As for the ſea vine, it groweth every where: but the fig-tree there is without leaves, & hath a red barke. There be alſo Date trees found

in the ſea: but as little as ſhrubs. Without *Hercules* pillars, or the ſtreight of Gebraltar, there are ſhrubs to bee ſeene, bearing leaves reſembling Leeke-blades: and others leaved like to the Bay tree, or to the hearbe Thyme: and both kinds being caſt up a land, turne into the pumiſh ſtone. But in the Eaſt parts it is a wonderous matter to thinke, that ſo ſoone as ever a man is paſt Coptus, he ſhall find nothing to grow in all the wilderneſſe, but onely a kind of thorne or thiſtle, called the thirſtie or drie thorne, and the ſame but here and there, in very few places: whereas in the red ſea, whole woods doe live, and namely, of Baies and Olives bearing their berries: alſo when it raineth, certaine Muſhromes, which no ſooner bee caught with the Sunnes heat, but they turne into the pumiſh ſtone. As touching the ſhrubs there growing, they be commonly three cubites high, and thoſe ſo full of ſea dogs and curres, that a man ſhall hardly looke out of the ſhip in ſafetie, for that many times they will take hold of the very oares, and aſſaile them. The ſoldiors of *Alexander* the Great who ſailed into India, made report, That the branches and leaves of the ſea trees, ſo long as they were under the water looked greene, but when they be taken forth, preſently dried with the heat of the Sunne, and became ſalt. Alſo that about the ſhore they found ſtonie ruſhes and reeds, like unto naturall ruſhes indeed. Moreover, in the deepe ſea they light upon certaine little trees braunched and full of boughes, in colour of an Oxe horne, but the head or top of them was red: handle them in your hand, they were as brittle as glaſſe: put them into the fire, they would bee red hote like yron: quench them againe, they returned to their former colour. In the ſame tract, there bee ſome tides ſo high, that the ſea overfloweth and covereth the woods growing within the Iſlands, although there be trees in them taller than the higheſt Planes or Poplars. And thoſe trees bear leaves like Lawrell, and flowers for ſmell and colour reſembling the Violet. Their berries bee like to Olives, and thoſe of a pleaſant and ſweet ſavor, which they bring forth in the Autumne: and their leaves never ſhed but continue all the yeare long. The lower ſort of theſe trees the floud covereth all and whole: but the greateſt beare up their heads above the ſea, whereunto the mariners doe faſten and tie their veſſels, at a high water: but when it is ebbe, at the very root. Moreover, by their ſaying they ſaw other trees in the ſame ſea, with leaves ever greene upon them, carrying a fruit like to Lupines. King *Iuba* reporteth, That about the Iſlands of the Troglodites there groweth a ſhrub within the ſea, called Iſidos Plocamos, [*i. Iſis* haire] reſembling corrall, and void of leaves: cut a braunch of it from the ſtock, it becommeth hard, changeth colour and is blacke: if it fall, it is ſo tender, that it will breake like glaſſe. Hee ſpeaketh moreover of another called Charito-blepharon, which is of great force in amatorious matters to procure love: And thereof women (quoth hee) make them carkanets and pendant ornaments to hang about their neckes. To conclude, he affirmeth, that this ſhrub hath a certaine intelligence when a man would take hold of it, and therefore waxeth as hard as an horne, inſomuch as it is able to turne the edge of a knife or bill, that unneath or hardly it may be cut: but in caſe it be entrapped and drawne up with cords without any edge toole, it preſently turneth to be a ſtone.

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THE XIIII. BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

Containing the Treatiſe of Trees bearing fruit.

The Proëme.

THus farre forth have wee diſcourſed of all forraine and ſtraunge trees in a manner, ſuch I meane as know not how to live in any other places but where they naturally firſt did grow, and which willingly goe not into other countries, nor can abide their ſoile or aire. Good leave may I now have to write of Plants and Trees common to all lands, and namely, to ours of Italie, which may ſeeme to bee the very Hort-yard and naturall garden that bare them all. This onely would I advertiſe the readers and learners to remember, that for this preſent we purpoſe to deſcribe their natures and vertues onely, leaving out the manner of husbandrie that belongeth unto them: albeit in their tending and keeping appeareth the greateſt part of their properties, and of Natures workes. And verily, I cannot chuſe but marvell ſtill and never give over, how it comes to paſſe, that the remembrance, yea, and the very names of ſome trees which auncient writers have delivered in their bookes, ſhould bee quite gone and aboliſhed. For who would not thinke, that our life ſhould ere this have gained much by the majeſtie of the Roman Empire; have diſcovered all things by the meanes of the commerce we have had with the univerſall world, by the trafficke, negotiation, and ſocietie I ſay that we have entred into during the bleſſed time of peace which we have enjoied? conſidering that by ſuch trade & entercourſe, all things heretofore unknown, might have come to light. And yet for all this, few or none (beleeve me) there are who have attained to the knowledge of many matters which the old writers in times paſt have taught and put in writing. Whereby we may eaſily ſee, that our auncеſtors were either farre more carefull and induſtrious, or in their induſtrie more happie and fortunate. Conſidering withall, that above two hundred years paſt Heſiodus *(who lived in the very infancie of learning and good letters) began his worke of Agriculture, and ſet downe rules and precepts for husbandmen to follow. After whoſe good example, many others having travelled and taken like paines, yet have put us now to greater labour. For by this meanes wee are not onely to ſearch into the laſt inventions of later writers, but alſo to thoſe of auncient time, which are forgotten and covered with oblivion, through the ſupine negligence and generall idleneſſe of all mankind. And what reaſons may a man alledge of this drowſineſſe, but that which hath lulled the world aſleepe? The cauſe in good faith of all, is this and none other, Wee are readie to forgoe all good cuſtomes of old, and to embrace novelties and change of faſhions: mens minds now adaies are amuſed and occupied about new fangles, and their thoughts bee rolling; they wander and rove at randon; their heads be ever running; and no arts & profeſsions are now ſet by and in requeſt, but ſuch as bring pence into our purſes. Heretofore whiles kings and potentates contained themſelves within the dominion of their owne nations, and were not ſo ambitious as now they bee, no marvell if their wits and ſpirits kept ſtill at home: and ſo for want of wealth and riches of fortune, were forced to employ and exerciſe the gifts of their mind: in ſuch ſort as an infinite number of princes were honored and renowned for their ſingular knowledge and learning. Yea, they were more brave in port, and carried a goodlier ſhew in the world for their skill in liberall ſciences, than others with all their pompe or riches: being fully perſuaded and aſſured, that the way to attaine unto immortalitie and everlaſting fame, was by literature and not*

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by great poſſeſsions and large ſeignories. And therefore as learning was much honoured and rewarded in thoſe dates, ſo arts & ſciences tending to the common good of this life daily encreaſed. But afterwards when the way was once made to enlarge their territories farther in the world, when princes and ſtates began to make conqueſts and grow rich and mightie, the poſteritie felt the ſmart and loſſe thereby. Then began men to chuſe a Senatour for his wealth; to make a judge for his riches; in the election of a civile magiſtrate and martiall captaine, to have an eie and regard onely to goods and ſubſtance, to land and living: when rents and revenues were the cheefe and onely ornaments that made men ſeeme wiſe, juſt, politike, and valiant. Since time that childleſſe eſtate was a point looked into, and advaunced men into high place of authoritie and power: procuring them many favourites in hope of ſucceſsion; ſince time I ſay that every man aimed and reached at the readieſt meanes of greateſt lucre and gaine, ſetting their whole mind, and repoſing their full content and joy in laying land to land, and heaping together poſſeſsions; downe went the moſt precious things of this life, and loſt their reputation: all theſe liberall arts which tooke their name of libertie and freedome, (the ſoveraigne good in this world which were meet for princes, nobles, gentlemen, and perſons of great ſtate) forwent that prerogative, and fell a contrarie way, yea, and ran quite to wracke and ruine: ſo as in ſtead thereof, baſe ſlaverie, and ſervitude be the only waies to ariſe and thrive by: whiles ſome practiſe it one way, ſome another, by flattering, admiring, courting, crouching, and adoring: and all, to gather good and get money. This is the only marke they ſhoot at, this is the end and accompliſhment of all their vowes, praiers, and deſires. Inſomuch as we may perceive every where, how men of high ſpirit and great conceit are given rather to honour the vices and imperfections of others, than to make the beſt of their owne vertues and commendable parts. And therfore we may full truly ſay, that Life indeed is dead; Voluptuouſneſſe and Pleaſure alone is alive, yea, and beginneth to beare all the ſway. Nevertheleſſe, for all theſe enormities and hinderances, give over will not I to ſearch into thoſe things that bee periſhed and utterly forgotten, how ſmall and baſe ſoever ſome of them be; no more than I was affrighted in that regard, from the treatiſe and diſcourſe of living creatures. Notwithſtanding that I ſee Virgil *(a moſt excellent Poet) for that cauſe onely forbare to write of gardens and hort-yards, becauſe he would not enter into ſuch pettie matters: and of thoſe ſo important things that he handled, he gathered only the principall flowers, & put them down in writing. Who albeit that he have made mention of no more than 15 ſorts of grapes, three kinds of Olives, and as many of Peares, and ſetting aſide the Citrons and Limons, hath not ſaid a word of any apples; yet in this one thing happie & fortunat he was. For that his worke is highly eſteemed, and no imputation of negligence charged upon him. But where now ſhall we begin this treatiſe of ours? what deſerveth the cheefe & principall place, but the Vine? In which reſpect Italie hath the name for the very ſoveraigntie of Vineyards: inſomuch, that therein alone, if there were nothing els, it may well ſeeme to ſurpaſſe all other lands, even thoſe that bring forth odoriferous ſpices and aromaticall drugs. And yet to ſay a truth, there is no ſmell ſo pleaſant whatſoever, that outgoeth Vines when they bee in their freſh and flouring time.*

Chap. 1.

Of Vines, their nature, and manner of bearing.

VInes in old time were by good reaſon for their bigneſſe reckoned among trees. For in Populonia, a citie of Tuſcane, wee ſee a ſtatue of *Jupiter* made of the wood of one entire Vine, and yet continued it hath a world of yeares uncorrupt and without worme. Likewiſe at Maſſiles there is a great ſtanding cup or boll to be ſeene of Vine wood. At Metapontum there ſtood a temple of *Juno*, bearing upon pillars of Vine wood. And even at this day there is a ladder or paire of ſtaires up to the temple of *Diana* in Epheſus, framed of one Vinetree, brought (by report) out of the Iſland Cypres, for there indeed Vines grow to an exceeding bigneſſe. And to ſpeake a truth, there is no wood more durable and laſting than is the Vine. Howbeit, for my part I would thinke that theſe ſingular peeces of worke beforenamed, were made of wild and ſavage Vines: for that theſe our tame and gentle Vines here planted among us, are by cutting and pruning every yeare kept downe: ſo as all their whole ſtrength is either drawne without-forth into branches, or els downward into the root for to put out new ſhoots ever freſh out of the ground: and regard is onely had of the fruit and juice that they doe yeeld diverſe waies, according to the temperature of the aire & climate, or the nature of the ſoile wherein they be planted. In the countrey of Campaine about Capua, they bee ſet at the roots of Poplers, and (as it were) wedded

unto

unto them: and so being suffered to wind and clasp about them as their husbands, yea, and with their wanton armes or tendrils to climbe aloft, and with their joints to run up their boughes, they reach up to their head, yea, and overtop them: insomuch as the grape-gatherer in time of Vintage, putteth in a clause in the covenants of his bargaine when hee is hired, that in case his foot should faile him, and he breake his necke, his maister who sets him aworke should give order for his funerall fire and tombe at his owne proper cost and charges. And in truth Vines will grow infinitely: and unpossible it is to part them, or rather to plucke them from the trees which they be joined and coupled unto. *Valerianus Cornelius* making mention of many properties and singularities of a Vine, thought this among the rest worthie of especiall note and remembrance, That one onely stocke of a Vine was sufficient to compasse, and environ round about a good fermehouse or countrey messuage, with the branches and pliable shoots that it did put forth. At Rome there is one Vine growing within the cloistures of the porches and galleries built by the Empresse *Livia*, which running and trailing upon an open frame of railes, covereth and shaddoweth the ouvert allies made for to walke in: and the same Vine yeeldeth one yeare with another a dosen Amphores of good new wine yearely. An ordinarie thing it is, that Vines will surmount any Elmes whersoever, be they never so tall and loftie. It is reported, that *Cyneas* the Embassadour of king *Pyrrhus*, wondering at the Vines of Aricia, for that they grew and mounted so high; would needs tast of the wine that came of their grapes: and finding it to bee hard and tart, merrily skoffed and said, That by good right and justice they had done well, to hang the mother that bare such unpleasant wine, upon so high a gibbet. Beyond the river Po in Italie, there is a tree growing which the peasants there call Rumbotinus, and by another name *Opulus; it putteth forth great armes and boughes, and those spread broad and beare a round compasse, howbeit, the Vines that be planted at the root of these trees, doe fill and cover the said boughes: for yee shall have the very old crooked braunches of the Vine (bare as they be and naked of leaves) to wind about the armes, and crawle in manner of a serpent or dragon along the broader and flattey base of the boughs, and then the new shoots, toptwigs, and tendrils, will devide themselves to the utmost branches and shoots of the tree, that they will lode and clog her withall. These Vines again grow sometime no taller than the ordinarie height of a man of middle stature, and being supported and underpropped with stakes and forkes, cleave and cling thicke together, and in this order fill whole Vineyards. Others also there bee, which with their excessive creeping upon frames, with their overgrowne braunches, and some artificiall helpe of the maisters hand, spread so far every way, that they take up wide and large courts, overspreading not onely the sides, but the very mids thereof. See what sundrie sorts of Vines even Italie alone is able to affourd! But in some provinces without Italie, ye shall see a Vine stand of it selfe without any prop or stay at all, gathering and drawing in her boughes and braunches together: thus indeed she groweth but short, howbeit so close couched and trussed round, that the thickneese makes amends for all. And yet otherwhiles in some coasts the winds are so big and boisterous, that they will not suffer them thus to grow upright; as namely in Affricke, and Languedoc, the province of Narbon. Vines being thus debarred to run up in height, resting upon their owne joints and braunches, and ever like to those that be laid along whiles they are a trimming, by delving about their roots, and pruning their superfluous branches, traile and creepe too and fro along the ground, as weedes and hearbes; and all the way as they spread, sucke the humor of the earth into their grapes: by which meanes, no marvell it is, if in the inland parts of Affricke there bee found some of those grapes bigger than pretie babes. And in no countrie are the grapes of a thicker skin than those of Affricke, whereupon it may well be, that they tooke the name *Duracina* [*i.* having hard skins.] For infinite sorts there be of grapes, according to the difference observed in their quantitie and bigneese, in their colour, tast, stones or kernils: and yet more still, in regard of the divers wines made of them. In one place they are of a fresh and bright purple, in another, of a glittering, incarnate, and rosate colour: and yee shall have them of a faire and lively greene. As for the white and blacke grapes, they be common every where. The grapes Bumasti have their name, for that they bee so swelling and round, like strutting paps or dugs. The Date-grapes Dactyli, are long, both grape and kernill, fashioned in manner of fingers. Moreover, Nature seemeth to take her pleasure and make good sport in some kind of them; where ye shall find among them some that be exceeding great, others againe that be as small, howbeit pleasant they are, and as sweet as the rest: and such be called Leptorhagæs. Some last all winter long, being knit in bunches together, and so hanged aloft

*Opiet.

*Quasi durie acinis.

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arch-wise in maner of a vault: with others they make no more ado, but put them up presently as they come from the Vine, into earthen pots, whiles they be fresh & in their vigor; and afterwards they are bestowed, well lapped over with their leaves, in other greater vessels over them; and for to keepe them better, they be stopped close with kernels heaped and piled upon, sweating round about, to condite and preserve them in their naturall heat. Others they suffer to be dried in the smoke of smiths forges, wherby they get the very tast of enfumed wine, so ordered in the smoke. And in truth *Tiberius Cæsar* the Emperour gave especiall credite and name by his example to such grapes dried in the furnaces of Affricke. For before his time, the Rhetian grapes and those that came out of the territorie of Verona, were ordinarily served up to the table first, for the very best. As for the Raisins called Passæ, they tooke that name in Latine of their patience to endure their drying and confiture. Some grapes there be that are condite in Must or new wine, and so they drinke their owne liquor wherein they lie soking, without any other seething. Others againe are boiled in Must abovesaid, untill they loose their owne verdure, and become sweet and pleasant. Moreover, yee shall see old grapes hang still upon the Vine their mother, untill new come: but within glasses, that a man may see them easily through: howbeit, to make them to last and continue in their full strength, as well as those which bee preserved in barrels, tuns, and such like vessels aforesaid, they use the helpe of pitch or tarre, which they poure upon the stalkes that the cluster hangeth to, and wherewith they stop close the mouth of the said glasse. It is not long since that there was a devise found, that wine of it selfe (as it came naturally from the grape growing upon the Vine) should have a smacke and sent of pitch. And surely this kind of *Pitch-wine, brought the territorie about Vienna into great name and reputation: and before that this Vine was knowne, those of Auverne, Burgundie, and the Helvij, were in no request at all. But these devises as touching Vines and Wines, were not in the daies of the Poët *Virgil*, who died about nintie yeares past. But behold what I have to say more of the Vine-tree: the Vine wand is now entred into the campe, and by it our armies are raunged into battaillons: nay, upon the direction thereof dependeth the maine estate of our soveraigne Empire: For the Centurion hath the honour to carie in his hand a Vine-rod: the good guidance and ordering whereof advaunceth after long time the Centeniers (for a good reward of their valorous and faithfull service) from the leading of inferiour bands, to the captaineship of that regiment and cheefe place in the armie, unto which the maine standard of the Ægle is committed: yea, and more than that, the Vine wand chastiseth the trespasses and lighter offences of the souldiors; who take it for no dishonour nor disgrace to be thus punished at their Centurions hand. Over and besides, the planting of Vineyards hath taught martiall men how to approch the walls of their enemies, to give an assault under a frame devised for the purpose, which thereupon took the name of Vinea. Lastly, for medicinable vertues in Physicke, the Vine is so profitable to mans health, that the use of it alone is a sufficient remedie for the distemperature of mans bodie, caused by wine it selfe.

* πιτίτης οἶνος. Plutarch.

Chap. 11.

Of the diverse kinds of Vines.

Democritus was the onely Philosopher ever known, who made profession to reduce all the sorts and kinds of Vines to a certaine number, and indeed he vaunted and made his boast that he had the knowledge of all things that were in Greece. All others besides himselfe, and those comming nearer to the truth, (as shall appear more evidently by the varietie of wines) resolutely have set downe, that there be infinite sorts of Vine-trees. Looke not therefore at my hands, that I should write of them all, but onely of the principall: for that in truth there bee in manner as many and as sundrie kinds of them, as are of grounds. Wherefore I will content my selfe, and thinke it sufficient to shew those that bee singular and most renowned among them, or such as have some secret proprietie worth admiration. And first to begin with the Aminean Vines, all the world giveth them the cheefe praise and greatest name; as well for their grapes, of so lasting and durable a nature, as for the wine made thereof, which in all places continueth long in vigor, and is ever the better for the age. And hereof there be five sundrie sorts. Of which, the kindly Vines named Germanæ, have both lesse grapes and graines within, but they burgen and bloume better than others: and after the flower is gone, they can abide both raine and tempest. But the second kind (which is the greater) is not so hardie: howbeit, lesse subject to wind & weather

ther when they be planted to run up a tree, rather than to creepe upon a frame. A third ſort are called Gemellæ,for that their grapes grow double like twins,and they be very harſh and in taſt untoothſome,howbeit their vertue and ſtrength is ſingular. The ſmaller ſort of theſe take harm by the South wind: but all other winds nouriſh them,as we may ſee in the mount Veſuvius, and the little hils of Surrentum: for in all other parts of Italie, yee ſhall never find them but wedded to trees,and growing upon them. As for the fift kind of theſe Amminean Vines,they bee called Lanatæ,ſo freezed they are with a kind of downe or cotton,inſomuch as we need not wonder any more at the Seres or Indians for their cotton and ſilken trees. The firſt kind of theſe Amminean grapes come ſooneſt to their ripeneſſe and perfection,and moſt quickly do they rot and putrifie. Next to theſe Amminean Vines, thoſe of Nomentum are in moſt account: and for that their wood is red,ſome have called them Rubellæ. Theſe grapes yeeld no great plentie of wine, but inſtead thereof their ſtones and kernils, and other refuſe remaining, grow to an exceeding big cake: howbeit,this propertie they have. The froſt they will endure paſſing well, leſſe harme they take alſo by raine than drought,and thrive better in cold than heat: and therefore in cold and moiſt grounds they excell and have no fellow. Of theſe Vines, they are more plentifull which beare grapes with ſmaller ſtones, and leaves with leſſe cuts and jags endented. As touching the Muſcadell Vines, Apianæ,they tooke that name of Bees,which are ſo much delighted in them, and deſirous to ſettle and feed of them. Of two ſorts they are: and both carie cotton and down. Howbeit,this difference is betweene them,that the grapes of the one will bee ſooner ripe than the other, and yet there is neither of them both but be haſtie ynough. Theſe Muſcadell grapes like well and love cold countries: and yet none ſooner rot than they,if ſhowers take them. The Muſcadell wines are at the firſt ſweet: but with age become harſh and hard, yea, and red withall. And to conclude,there is not a grape that joieth more to hang upon the vine,than it doth. Thus much of the very flower of Vines,and the principall grapes that be familiar and proper unto our countrey of Italie,as their native ſoile.

The reſt be ſtraungers come out of Chios or Thaſos. As for the Greeke grapes of Corinth, they be not in goodneſſe inferior to the Aminean aforeſaid. They have a very tender ſtone within: and the grape it ſelfe is ſo ſmall, that unleſſe the ſoile be exceeding fat and battle,there is no profite in planting and tending ſuch Vines. The quicke-ſets of the Vine Eugenia were ſent unto us from the Tauromenitane hils in Sicilie,together with their ſurname pretending a noble and gentle race. Howbeit,they are never in their kind with us, but onely in the Albane countrey: for if you tranſplant them,they prove very baſtards and changelings preſently. And in faith,ſome Vines there be that take ſuch an affection and love to a place, that all their goodneſſe and excellencie they will leave there behind them, and never paſſe into another quarter whole and entire as they be in their owne nature. Which evidently is to bee ſeene in the Rhetian Vine,and that of Savoy and Dauphinie,of which in the chapter before we ſaid,that it gave the taſt of pitch to the wine made thereof: for,theſe Vines at home in thoſe countries are much renowned for the ſaid taſt: but elſewhere if they be tranſplanted,they looſe it whole, and no ſuch thing may a man acknowledge in them. Howbeit,plentifull ſuch are,and for default of goodnes,they make amends and recompence in abundance of wine that they yeeld. As for the Vine Eugenia,it taketh well in hote grounds. The Rhetian liketh better in a temperate ſoile. The Allobrogian Vine of Savoy and Daulphine delighteth moſt in cold quarters: the froſt it is that ripeneth her grapes,& commonly they are of colour blacke. Of all the grapes above rehearſed,the wines that be made, the longer they be kept,the more they change colour,& in the end become white, yea,though they came of blacke grapes,and were of a deepe colour at firſt. Now for all other grapes whatſoever, they are reckoned but baſe in compariſon of the former. And yet this is to bee noted and obſerved,that the temperature of the aire may be ſuch, and the ſoile ſo good,that both the grapes will endure long,and the wine bear the age very well. As for example,the Vine Fecenia,and likewiſe Biturica, that bloumeth with it, which beare grapes with few ſtones within: their flowers never miſcarie,for they ever prevent and come ſo timely,that they be able to withſtand both wind and weather. Howbeit,they doe better in cold places than in hote: in moiſt alſo,than in drie. And to ſay a truth,there is not a vine more fruitfull, and yeelding ſuch ſtore of grapes growing ſo thicke together in cluſters: but of all things it may not away with variable and inconſtant weather: let the ſeaſon be ſtaied and ſettled,it matters not then whether it bee hot or cold,for well it will abide the one and the other alone,hold it never ſo long. The leſſer of this kind is held for the better.

Howbeit

Howbeit, in chooſing of a fit ſoile for this vine, it is much adoe to pleaſe and content it: in a fat ground it ſoone rotteth; in a light and lean, it will not grow at all: very choiſe it is therefore, daintie, and nice, in ſeeking a middle temper betweene, and therefore it taketh a great liking to the Sabine hills, and there it loves to be. The grapes that it beareth, be not ſo beautifull to the eye, but pleaſant to the tooth: if you make not the more haſt to take them preſently when they be ripe, they will fall off, although they bee not rotten. This vine putteth foorth large and hard leaves, which defend the grapes well againſt haileſtones.

Now there are beſides, certain notable grapes of a middle colour between black and purple, and they alter their hue oftentimes; whereupon ſome have named them Varianæ: and yet the blacker they be, the more they are ſet by: they beare grapes but each other yeare, that is to ſay, this yeare in great plentie, the next yeare very little: howbeit, their wine is the better when they yeeld fewer grapes. Alſo there be two kinds of vines called Pretiæ, differing one from the other in the bigneſſe of the ſtones within the grape: full of wood and braunches they are both: their grapes are very good to be preſerved in earthen pots: and leafed they be like to Smallach. They of Dyrrhachium doe highly praiſe the Roiall vine Baſilica, which the Spaniards call Cocolobis. The grapes grow but thin upon this plant: they can well abide all South winds, and hote weather: they trouble and hurt the head, if a man eat much of them. In Spaine they make two kinds of them; the one having a long ſtone or grain within, the other a round: theſe be the laſt grapes that are gathered in time of vintage. The ſweeter grape that the Cocolobis beareth, the better is it thought: howbeit that which was hard and tart at the firſt, will turne to bee pleaſant with keeping; and that which was ſweet, will become harſh with age: and then they reſemble in taſt, the Albane wine: and men ſay, there is an excellent drinke made thereof, to helpe diſeaſes and infirmities of the bladder. As touching the vine Albuëlis, it beareth moſt grapes in the tops of trees, but Viſula is more fruitfull beneath toward the root: and therefore if they be ſet both under one and the ſame tree, a man ſhall ſee the diverſitie of their nature, and how they will furniſh and enrich that tree, from the head to the foot. There is a kind of blacke grape, named Inerticula, as a man would ſay, dull and harmeleſſe; but they that ſo called it, might more juſtly have named it The ſober grape: The wine made therof is very commendable when it is old, howbeit nothing hurtfull * for never maketh it any man drunke: and this propertie hath it alone by it ſelfe. As for other vines, their fruitfulnes doth commend them; and namely above all, that which is called Helvenaca: wherof be two kinds; the greater, which ſome name The long: and the ſmaller, called Area: not ſo plentifull it is as the former, but ſurely the wine thereof goeth downe the throat more merrily. It differeth from the other in the perfect and exquiſite wonders of the leafe, as it were drawne by compaſſe: but both the one and the other is very ſlender, and therefore of neceſſitie they muſt be underpropped with forkes, for otherwiſe they will not beare their own burden, ſo fruitfull they be. They delight greatly to grow neare the ſea ſide, where they may have the vapours of the ſea to breath upon them: and indeed their very grapes have a ſent and ſmell of a brackiſh dew. There is not a vine can worſe brooke Italie. Her grapes are ſmall, they hang thin, and rot even upon her: and the wine made thereof, will not laſt above one Summer: and yet on the other ſide there is not a vine that liketh better in an hungrie and leane ground. *Græcinus* (who otherwiſe compiled his worke out of *Cornelius Celſus* in manner word for word) is of this opinion, That this vine could love Italie well enough, and that of the owne nature it miſliketh not the countrey; but the cauſe why it thriveth no better there, is the want of skill and knowledge to order and husband it as it ought to bee; for that men ſtrive to overcharge it with wood, and load it with too many braunches: and were it not that the goodnes of a fat and rich ſoile maintained it ſtill, beginning to faint and decay, the fruitfulneſſe thereof were enough to kill it. This vine (by report) is never blaſted: a ſingular gift verily of Nature, if it be true, That any plant or tree ſhould bee ſo exempt from the juriſdiction (as it were) of the heavens, that they had no power to doe it harme. The vine Spionia, which ſome call Spinea, feareth no extremitie of heat: her grapes proſper well in Autumne and much abundance of raine: This is the only grape that is nouriſhed with foggie miſts, and therefore it liketh no place well but the territory of Ravenna. The vine Venicula (which is counted one of the beſt for kindly blooming and ſhedding the flowers, and for grapes moſt meet to be preſerved and kept in pots) the Campaines rather name Sirculus; others Stacula: and they of Tarracina call it Numiſiana: and as they ſay, the grape therof hath no ſingularitie nor vertue in it ſelfe, but only according to the ſoile where

* Amethyſtos, *Columell.*

it

it groweth: howbeit thoſe that grow about Surrentum, have the moſt ſtrength, and are excellent to bee preſerved in veſſels; I meane, as farre as up to the hill Veſuvius: for there alſo is the vine Murgentina, the beſt of all thoſe that come out of Sicilie, which ſome call Pompeiana, of Pompeij, a towne within the kingdome of Naples: & being gotten once into Latium, it beareth grapes abundantly: like as the vine Horconia in Campaine, yeeldeth plentie of grapes with the beſt, but good they are for nothing ſave only to be eaten at the table. As for the grape Mærica, it will laſt and endure a long time; it feareth neither wind nor tempeſt, nor any blaſt of planet: blacke it is, and hath blacke ſtones: howbeit the wine that it maketh, waxeth red with age, namely, if it be long kept.

Chap. iii.

Of the divers kinds likewiſe of vines according to the propertie of the places and regions where they grow.

HItherto have we treated of the ſundrie ſorts of vines in generall: now will we write of them according to the nature of the places and regions, which are proper and familiar unto them; or, as they be mingled one with another, by tranſplanting or grafting. And firſt and formoſt, the vine Tudernis; alſo Florentia (bearing the name of the citie Florence) are peculiar to the Tuſcans: but about Aretium, there is no talke both for plentie and goodneſſe, but of the Talpana, Eteſiaca, and Conſeminia. The Talpane grape is blacke as the Mouldwarpe, whereof it taketh the name, but yet doth it yeeld a white wine. The Eteſiacke vine [ſo called of the wines Eteſiæ] is a deceitfull plant, and often miſſeth and faulteth; but the more grapes it beareth, the better wine it yeeldeth and more commendable: mary this is ſtraunge and wonderfull in it, In the mids of this fruitfulneſſe of hers, ſhe giveth over ſodainly and dieth. The vine Conſeminia, bringeth blacke grapes: the wine will not laſt, but the grapes will keepe and continue paſſing long: the vintage thereof is fifteene daies after all other: it beareth ordinarily her full burden, but the fruit is onely good for meat to be eaten, and not for wine to be drunke. The leaves of this vine (in manner of the wild vine Labruſca) before they fall, become as red as bloud. This propertie happeneth to ſome others beſides; but take it for a certaine token of the worſt vines. The vine and grape Irtiola, is proper unto Vmbria, to the territorie of the Mevenates, and the Picene countrey: like as that which they call Pumula, to the Amiternine region. They have among them alſo another kind, named Bannanica: and although it oftentimes doth not take, yet they love the plant and cheriſh it. There is a grape which they call the Burrough or Burgeois grape, after the name of the burrough towne Pompeij; and yet there is more plentie of them about the citie Cluſium. The Tiburtines alſo, named their grapes after their town Tybur: yet of late daies they have found another ſort, which of the reſemblance of Olives, is called the Olive grape: and in truth, this is the laſt grape of any account, to this day knowne to have been found out. The Sabins and Laurentines only are acquainted with the grape Vinaciola: for well I wot, that the vines Gauranæ came firſt out of the territorie of Falerij, and thereupon were named Falernæ: but tranſplant them from thence whitherſoever you will, they will very quickly degenerat in all places, & prove baſtard. Moreover, ſome have made a ſeveral kind by it ſelfe of the Tarentin vine, which bringeth forth an exceeding ſweet grape. As for the grapes called Capnias, Bucconiatis, and Tarrupia, there is no vintage of them in the vineyards of the hils about Thurinum, before the cold froſt. As for the citizens of Piſæ, they ſet great ſtore by the grapes Phariæ: like as Modenna by thoſe called Pruſiniæ; which are very black, ſtone and all: yet the wine therof, within foure yeeres will turne to a pallet and whitiſh colour. A ſtraunge thing it is which men report of a certaine grape, that evermore will turne with the Sunne; and thereupon it is called Streptos: as alſo that we in Italie are delighted with the French grapes: and they in Fraunce beyond the Alpes, are as much in love with ours in the Picene countrey. *Virgill* hath made mention of other grapes, namely, Thaſiæ, Marcotides, and Lageæ, beſides many other outlandiſh plants, not at this day to be found throughout all Italy. Howbeit there be yet many vines of good marke & well accepted of, not for any wine that they yeeld, but only for their grapes which they carie; to wit, Ambroſiaca, and Duracina, which may be kept hanging ſtill upon the vine, without any veſſell to encloſe them: ſo durable be they and hardie, againſt cold, heat, wind, and rain, or any weather whatſoever. As for the vine Orthampelos, it needs neither tree to climb on, nor

forkes to ſupport it, but is able to maintaine and uphold it ſelfe upright. But the Dactylides (ſo called for that they beare not wood above a finger thicke) cannot ſo doe: for they muſt be ſhored and underpropped. Of all vines, the Columbines yeeld moſt gleaning, for that the gatherers leave behind them greateſt ſtore of ſmall grapes: and ſo doe the purple grapes, named alſo Bimammiæ (as one would ſay, with two teats or bigs) more than the reſt; ſeeing that they beare not ſmall grapes, but put forth new great ones indeed, after the other be gathered and gone. In like manner, the vine Tripedanea, which tooke that name of the meaſure of three foot. Semblably the vine Scirpula, the grapes wherof ſeeme as if they were Raiſons of the Sunne, dried alreadie. Moreover, in the maritime Alpes toward the ſea ſide, there is a kind of Rhetian vine, but far inferiour to that other above-mentioned and ſo much commended for the relliſh of pitch that it giveth to the wine made of her grapes: for theſe about the Alpes be little and ſmall; and albeit they beare grapes thicke, yet the wine thereof commeth farre ſhort of the other, and is more degenerate: howbeit the skin of the grapes is of all other the thinneſt, having but one kernell within, which they call Gigarton, and the ſame very ſmall; and a man ſhall not find a bunch, without one or two paſſing great grapes above the reſt. There is alſo a kind of blacke Aminean grape, which ſome name Syriaca: likewiſe the grape of Spaine, which of the baſe and common kinds carrieth the greateſt credit, and is moſt commended. As touching both vines and grapes that run and traile upon frames; there be thoſe which are called Eſcariæ, good only for to eat, and namely thoſe which have graines or ſtones like to Ivie berries, as well white as black. Grapes reſembling great dugs, named thereupon Bumaſti, both blacke and white, are caried upon frames in like ſort. But all this while we have not ſpoken of the Ægyptian and Rhodian grapes, ne yet of the Ounce-grapes, whereof every one weigheth a good ounce, and thereupon tooke that name. *Item*, the grape Pucina, the blackeſt of all others: the Stephanitis alſo, wherein Nature hath ſeemed to diſport her ſelfe, for the leaves runne among the grapes in manner of a guirland plaited with them. Moreover, the market-grapes called Forenſes, they grow and are ripe with the ſooneſt; vendible at the very firſt ſight, and ſold with the beſt, and moſt eaſie to be carried from market to market. But contrariwiſe, the aſh-coloured grape Cinerea, the ſilke-ruſſet grape Ravuſcula, the aſſe-hued grape Aſiniſca, pleaſe not the eye, but are preſently rejected: and yet the fox-tailed grape Alopecis (for that it reſembleth Rainards-taile) is not ſo diſpleaſant nor ſo much diſcommended as the former. About a cape or creſt of the hill Ida, which they call Phalacra, there is a vine named Alexandrina, ſmall of growth, and putteth forth braunches of a cubit in length: the grapes be blacke, as big as beanes; the pepin or kernell within, ſoft, tender, and exceeding ſmall; the bunches are crooked, full of grapes, paſſing ſweet; & finally, the leaves little, round, and not cut or jagged at all. Within theſe ſeven yeeres laſt paſt, about Alba Elvia, a citie in Languedocke or the province of Narbon, there was found a vine, which in one day both flowred and ſhed her flowers: by which meanes moſt ſecured it was from all daungers of the weather. They call it Narbonica, or the vine of Languedoc: and now it is commonly planted all that province over, and every man deſireth to ſtore his vineyard therewith.

Chap. iiii.

Notable conſiderations about the husbandrie and ordering of Vineyards.

THat noble and worthy *Cato*, the firſt of that name, renowmed among other dignities for his honorable triumph, and the incorrupt adminiſtration of his Cenſorſhip; & yet more famous and renowmed to poſteritie for his ſingular knowledge and learning; and namely for the good precepts and ordinances tending to all vertues and commendable parts, which hee left in memorie for the people of Rome; and principally as touching agriculture [as he was by the common voice and generall accord of that age wherein hee lived reputed for an excellent husbandman, and one who in that profeſſion had neither peere nor ſecond that came near unto him.] This *Cato* (I ſay) hath in his workes made mention but of a few kinds of vines: and yet ſome of them alreadie be growne out of knowledge, ſo as their very names are quite forgotten. Yet nevertheleſſe his opinion and judgement would be ſet downe in particular, as it may be gathered out of his whole treatiſe: to the end that we might both know in every kind of vine which were of moſt account in his daies (to wit, in the 600 year after the foundation of Rome, about the

the time that Carthage and Corinth were forced and woon, when hee departed this life:) and alſo learne how much we have profited and proceeded in good husbandrie and agriculture, from his death unto this preſent day; namely for the ſpace of 230 yeares. As concerning vines and grapes therefore, thus much hath *Cato* delivered in writing, and in this manner following. *All places or grounds* (quoth he) *expoſed to the Sun-ſhine, and which in other regards ſhall be found good for to plant vineyards in, ſee they be employed for the leſſe Aminean, for both the Eugenian vines, and the ſmaller Helvine. Item, In every tract that is more groſſe, thicke, and miſty, looke that you ſet the greater Aminean, or the Murgentine: the Apician alſo, and the Lucane vine. All other vines, and the common mingled ſort eſpecially, will agree well enough with any ground. The right keeping of grapes, is in a ſmall thin wine of the ſecond running. The grapes Duracinæ, and the greater Amineans, are good to be hanged, or elſe dried before a black-ſmithes forge, and ſo they may be well preſerved, and goe for Raiſons of the Sunne.* Loe what the precepts of *Cato* be; neither are there any of this argument more auncient, left unto us written in the Latine tongue. Whereby we may ſee, that wee live not long after the very firſt rudiments and beginnings of knowledge in theſe matters. [But by the way, the Amineans laſt named, *Varro* calleth Scantians.] And in very truth, few there be even in this our age, who have left any rules in forme of Art, as touching the abſolute skill in this behalfe. Yet ſuch as they be, and how few ſoever, wee muſt not leave them behind, but ſo much the rather take them with us; to the end it may be known, what reward and profit they met with, who travailed in this point of husbandrie: reward, I ſay, and profit, which in every thing is all in all.

To begin therefore with *Acilius* * *Sthenelus*, (a meane commoner of Rome deſcended from the race of Libertines or Slaves newly enfranchiſed) he attained to the higheſt glorie and greateſt name of all others: for having in the whole world not above ſixtie acres of land lying all in vineyards within the territorie of Nomentum, he plaied the good husband ſo well therein, that he ſold them againe at the price of 400000 Seſterces. There went a great bruit and fame likewiſe of one *Verulenus Aegialus*, in his time a man but of baſe condition by birth, and no better than the former (namely, come of the ſtocke of freed-men) who by his labour and husbandrie, greatly enriched a domaine or living at Liternum in Campaine: and the more renowmed hee was by occaſion of the favour of ſo many men affectionate unto *Africanus*, whoſe very place of exile he held in his hands and occupied ſo well: for unto *Scipio*, the aboveſaid Liternum appertained. But the greateſt voice and ſpeech of men was of *Rhemnius Palæmon* (who otherwiſe by profeſſion was a famous and renowmed Grammarian) for that hee by the meanes and helpe of the foreſaid *Sthenelus*, bought a ferme within theſe twentie yeares for 600000 Seſterces in the ſame territorie of Nomentum, about ten miles diſtant from Rome, lying ſomewhat out of the high way. Now it is well knowne farre and neare, of what price and account all ſuch fermes are, and how cheape ſuch ware is lying ſo neare to the city ſide: but among the reſt, this of *Palæmons* in that place was eſteemed moſt cheape and loweſt priſed, in this regard eſpecially, That he had purchaſed thoſe lands, which through the careleſneſſe & bad husbandrie of the former owners, lay neglected and fore-let, and were not of themſelves thought to be of the beſt ſoile, choſen and piked from among the worſt. But beeing entred once upon theſe grounds as his owne livelode and poſſeſſion, he ſet in hand to husband and manure them, not ſo much of any good mind and affection that he had to improove and better any thing that he held, but upon a vaineglorie of his owne at the firſt, whereunto he was wonderouſly given: for he makes fallows of his vine-plots anew, and delveth them all over againe, as he had ſeene *Sthenelus* to do with his before: but what with digging, ſtirring, and medling therewith, following the good example and husbandrie of *Sthenelus*, he brought his vineyards to ſo good a paſſe within one eight yeeres, that the fruit of one yeares vintage was held at 400000 Seſterces, and yeelded ſo much rent to the lord: a wonderfull and miraculous thing, that a ground ſhould bee ſo much improoved in ſo ſmall a time! And in verie truth, it was ſtraunge to ſee what numbers of people would run thither, only to ſee the huge and mightie heapes of grapes gathered in thoſe vineyards of his: and all idle neighbours about him, whoſe grounds yeelded no ſuch encreaſe, attributed all to his deepe learning, and that he went to it by his booke, & had ſome hidden ſpeculation above other men; objecting againſt him, that he practiſed Art Magicke, and the blacke Science. But laſt of all, *Annæus Seneca*, eſteemed in thoſe daies a ſingular clerke, and a mightie great man, (whoſe overmuch learning and exceeding power coſt him his overthrowing in the end) one who had good skill and

* or, *Stelenus*.

judgement in the world, and used least of all others to esteeme toies and vanities, brought this ferme into a greater name & credit: for so farre in love was he of this possession, that he bought out *Palæmon*, and was not ashamed to let him goe away with the prick and praise for good husbandrie, and to remoove him into other parts where he might shew the like cunning: and in one word, paid for these foresaid vineyards of his fourfold as much as they cost, not above ten years before this good husbandrie was bestowed upon them. Certes, great pitie it is, that the like industrie was not shewed and emploied in the territories about the hills Cecubus and Setinus, where (no doubt) it would have well quit all the cost, considering that many a time afterwards, every acre of vineyard there, yeelded seven Culei, that is to say, 140 Amphores of new wine one year with another. But least any man should thinke, that we in these daies have surpassed our auncestors in diligence, as touching good husbandrie; know he, that the abovenamed *Cato* hath left in writing, How of an acre of vineyard there hath arisen ordinarily * ten Culei of wine by the yeare. Certainly these be effectuall examples and pregnant proofes, that the hardie and adventurous voiages by sea, are not more advantageous; ne yet the commodities and merchandise, and namely Pearles, which be fet as farre as the red sea and the Indian ocean, are more gainfull to the merchant, than a good ferme and homestall in the countrey, well tilled and carefully husbanded.

* 15, according to *Ful. Vrsinus.*

As touching the Wines in old time, *Homer* writeth, that the Maronean wine made of the grapes growing upon the sea-coast of Affricke, was the best and most excellent in his daies. But my meaning is not to ground upon fabulous tales and variable reports, as touching the excellencie or antiquitie of wine. True it is, that *Aristæus* was the first, who in that very nation mingled honey with wine; which must needs be a passing sweet and pleasant liquor, made of two natures so singular as they bee of themselves. And yet to come againe to the foresaid Maronean wine, the same *Homer* saith, That to one part thereof, there would be put twentie parts of water: and even at this day, that kind of wine continueth in the said land of the same force, and the strength thereof will not be conquered nor allaied. For *Mutianus*, who had been thrice Consull of Rome, and one of those that latest wrote of this matter, found by experience (being himselfe personally in that tract) that every sextar or quart of that wine, would beare eight of water: who reporteth moreover, that the wine is of colour blacke, of a fragrant sweet smell, and by age commeth to be fat and unctious. Moreover, the Pramnian wine, (which the same *Homer* hath so highly commended) continueth yet in credit and holdeth the name still: it commeth from a vineyard in the countrey about Smyrna, neare to the temple of *Cybele* the mother of the gods. As for other wines, no one kind apart excelled other.

One yeare there was, when all wines proved passing good; to wit, when *L. Opimius* was Consull, at what time as *C. Gracchus* a Tribune of the Commons (practising to sow sedition within the citie among the common people) was slaine: for then such seasonable weather happened, and so favourable for all fruit, that they called it (Coctura) as a man would say, the ripening time; so beneficiall was the Sunne to the earth: and this fell out in the yeere after the nativitie & foundation of the citie of Rome, 634.

Moreover, there be some wines so durable, that they have been knowne to last two hundred yeeres; and are come now by this time to the qualitie and consistence of a rough, sharpe, and austere kind of honey: and this is the nature of all when they bee old: neither are they potable alone by themselves, unlesse the water be predominant; so tart they are of the lees and so mustie withall, that they are bitter againe. Howbeit a certaine mixture there is of them in a very small quantitie with other wines, that gives a pretie commendable taste unto them. Suppose now, that according to the price of wine in those daies of *Opimius*, every Amphore were set but at an hundred Sesterces, yet after the usurie of six in the hundred yeerely (which is the ordinarie proportion and a reasonable interest among citizens, for the principall that lyeth dead and dormant in stocke) by the hundred and sixtieth yeere after the said Amphore was bought (which fell out in the time that *C. Caligula Cæsar* the sonne of *Germanicus* was Emperour) no marveile if an ounce in measure of the same wine (to wit, the twelfth part of a Sextarius) cost * so many Sesterces: for as we have shewed by a notable example, when we did set downe the life of *Pomponius Secundus* the Poët, and the feast that he made to the said prince *Caligula*, there was not a * Cyathus of that wine drawne, but so much was paid for it. Loe what a deale of money lieth in these wine-cellars, for keeping of wine! And in very truth, there is nothing more gainfull nor groweth to a

* *Bud.* 22 Sest.

* 1. an ounce and a halfe.

better

A better reckoning than it, for twentie yeares ſpace after it is laid up: neither is there greater loſſe againe by any thing, if ye paſſe that tearme; by reaſon that the price will not grow and ariſe accordingly: for ſeldome hath it been knowne to this day, (and never but at ſome exceſſive ryot and ſuperfluous expence of wine) that an Amphore hath been ſold for a thouſand Seſterces. True it is indeed, that they of Vienna only have made a better reckoning of their wines, and ſold them deerer; I meane thoſe that give a taſt of pitch, (the ſeverall kinds whereof we have delivered before:) but they are thought ſo to doe among themſelves onely, and for the love of their countrey, that it might have the name of wines, ſo deere and coſtly. To conclude, this wine of Vienna, is reputed colder than the reſt; when the queſtion is of cold drinke, and that the bodie is to be cooled.

B

Chap. V.

Of the nature of Wine.

THe nature and propertie of wine, is to heat the bowels within, if it be drunke; and to coole the exteriour parts, if it be applied outwardly. And here it ſhall not be amiſſe to rehearſe in this very place, that which *Androcydes* (the noble, ſage, and wiſe Philoſopher) wrote unto King *Alexander* the Great, for to correct and reforme his intemperate drinking of wine, whereto he was very prone and over-much given: *My good lord* (ſaith he) *remember when you take your wine, that you drinke the very blood of the earth: Hemlocke* (*you know Sir*) *is poiſon to man, even ſo is wine to Hemlocke.* Now if that Prince had been ſo wiſe as to have obeyed theſe precepts of his, C certes, he could never have killed his beſt friends as he did, in his fits of drunkenneſſe. In ſumme, this may be truly ſaid of wine, That being taken ſoberly and in meaſure, nothing is more profitable to the ſtrength of the bodie; but contrariwiſe, there is not a thing more dangerous and pernicious, than the immoderate drinking thereof.

Chap. VI.

Of kindly Wines made of the beſt Grapes.

WHo doubteth, that ſome wines be made more pleaſant and acceptable than others? nay out of the very ſame vat ye ſhall have wines not alike in goodnes, but that ſome go before their brethren, preſſed though they be at one time, and from the ſame kind of D grape: which may be long either of the veſſell whereinto they be filled, or of ſome accidentall occaſion: and therefore as touching the excellencie of wine, let every man be his own taſter and judge. The Empreſſe *Iulia Auguſta* would commonly ſay, That ſhe was beholden to the Pucine wine for living as ſhe did 82 yeares: for ſhe never uſed to drinke any other. This wine came of the grape that grew along the Adriaticke ſea, or Venice gulfe, upon a ſtonie and raggie hill, not farre from the ſource or ſpring of the river Timavus, nouriſhed with the vapours breathed from the ſea; and many Amphores there were not drawne thereof at a vintage: and by the judgement of all men, there is not a wine more medicinable than it is. I would thinke verily therefore, that the wine Pyctanon (which the Greekes ſo highly praiſe) is the very ſame; for it commeth from E the coaſts of the Adriaticke ſea. The Emperor *Auguſtus Cæſar* preferred the Setine wine before all others: and after him in manner, all the Emperours his ſucceſſours, for the ordinarie experience they found thereby, That lightly the liquor of that wine would not hinder digeſtion nor breed raw humors in the ſtomacke: and this wine commeth of the grape about the towne Forum Appij. Before that time, the wine Cæcubum was in beſt account; and the vines which yeelded it, grew to the Poplars in the mariſh grounds within the tract of Aniyclæ. But now is that wine cleane gone, as well through the negligence of the paiſants of that countrey, as the ſtreights of the place: and ſo much the rather, by reaſon of the ditch or trench which *Nero* cauſed to be made navigable, beginning at the lake or gulfe Bajanus, and reaching as farre as to Oſtia. In the ſecond degree of excellencie, are ranged the wines of the Falerne territorie, and principally that F which came from the vineyards Fauſtian: and this excellencie it grew unto by paſſing good order & carefull husbandrie. Howbeit this wine alſo in theſe daies beginneth to grow out of name and requeſt, whiles men love rather to have plentie from their vines, than otherwiſe lay for the goodnes thereof. Now theſe Falerne vineyards, begin at the Campaine bridge on the left hand as men go to the city-colonie erected by *Sylla*, and lately laid to Capua & under the juriſdiction thereof.

thereof. But the Fauſtian vineyards lie about foure miles from a village neare Cediæ, which village is from Sinueſſa ſix miles diſtant. And to ſay a truth, this Fauſtian wine is inferiour to none in reputation: ſo piercing and quicke it is, that it will burne of a light flame; a propertie that you ſhall not ſee in any other wine. Three ſorts there be of theſe Falerne wines: the firſt be hard and harſh; the ſecond, ſweet and pleaſant; the third, thin and ſmall. But ſome have diſtinguiſhed them in this wiſe: Thoſe that come from the top of the hills, be called Gaurane wines; from the mids, Fauſtian; and laſt of all from the bottome and foot thereof, the Falerne. But by the way this would not be forgotten, That the grapes whereof be made theſe wines ſo ſingular and excellent, are nothing pleaſant to the taſt for to be eaten. As touching the Albane wines from about Alba neare the citie of Rome, they reach to the third ranke in goodnes, for a certaine varietie they have in their taſt: ſweetiſh they be, and yet otherwhiles they have an unripe and harſh relliſh of the wood, & taſt like the hedge-wine. In like manner the wines of Surrentum, & namely thoſe of grapes growing onely in vineyards, are excellent good for weake perſons that be newly recovered of ſickneſſe; ſo ſmall they are, and holeſome withall. And in truth, *Tyberius Cæſar* was woont to ſay, That the Phyſicians had laid their heads togither, and agreed to give the Surrentine wine ſo great a name; for otherwiſe it was no better than a very mild and pleaſant vinegre: and *C. Caligula* (his ſucceſſor in the Empire) uſed to ſay of it, That for a wine that had loſt the heart and was a going, it was verie good. The Maſſike wines, which come from the Gaurane hills looking toward Puteoli and Bajæ, come nothing behind the reſt, but ſtrive to match them every way. For as touching the Statane vineyards, that confine and border upon the Falerne, their wines doubtleſſe are now come to be the principall and chiefe of all the reſt: whereby it is evidently ſeene, that every territorie and vine-plot hath their times and ſeaſons, like as all other things in the world, one while riſe and another while fall. For in times paſt, the Calene wines made of the grapes growing hard by Rome, were wont to goe before all others: as alſo the Fundane vines had their time, as well thoſe that are planted in vineyards, as they which run upon trees: like as thoſe of the other ſide, neare alſo to the citie of Rome, and namely from Veliternum and Privernum. For as touching the wine of Signia, it is held for a medicine onely; and by reaſon of an aſtringent verdure that it hath, it is excellent good to ſtay the flux of the belly. In the fourth place of this race of vines, *Iulius Cæſar* (late Emperour of famous memorie) hath raunged (for to ſerve the publicke and ſolemne feaſts of the cittie) the Mamertine wines, from about Meſſana in Sicilie: for he was the firſt (as appeareth by his letters miſſive) that gave credit and authoritie unto them. And of thoſe, the Potulane wines (ſo called of them who firſt planted the vines wherof they came) are moſt commended, & namely thoſe that are upon the next coaſt of Italy. Within the ſame Sicilie, the Tauromenitane vines are highly eſteemed, inſomuch as many times they goe for Meſſana wine, and are ſo ſold by whole pottles. Now for all other wines from about the coaſt of the Tuſcane ſea Northward, good reckoning is made of the Prætutian and ſuch as come from Ancone: alſo of the Palmeſian wines, which haply tooke that name, for that the firſt plant of that vine came from a Palme or Date tree. But in the midland parts of Italie within the firme land, good regard there is of the Ceſenatian and Mecænatian wines. Within the territorie of Verona, the Rhetian wine carrieth the price: which *Virgill* ranged next after the Falerne wines. Anon you come to the wines Adriane, and thoſe that grow far within the tract of the Venice gulfe. Now from the nether ſea about Lions, ye have the Latinienſian, the Graviſcane, and the Statonian wines. Throughout all Tuſcane, the wines about Luna beare the name: like as thoſe of Genes, for Liguria. Betweene the Pyrenæan hills and the Alpes, Maſſiles hath the commendation for wines of a double taſt: for the vines there, do yeeld a certain thicke and groſſe wine, which they call Succoſum, [*i.* full of juice and liquor] good to ſeaſon other wines, and to give them a pretie taſt. When ye are paſſed once into Fraunce or Gaule, the wine of Beterræ is in chiefe requeſt. As for the reſt within Languedoc and the province of Narbon, I am not able to avouch any thing for certaintie, ſuch a brewing and ſophiſtication of them they make, what with fuming, perfuming, and colouring them: and would God they put not in ſome hearbs and drugs among, that be not good for mans bodie. For certaine it is, that they commonly buy Aloë to give the wine both another taſt and alſo a counterfeit color. Moreover, in the farther and more remote coaſts of Italie toward the Auſonian ſea, there be wines which are not without their praiſe and commendation, and namely thoſe of Tarentum, Servitium, and Conſentia: likewiſe of Tempſa, Bavia, and Lucania: howbeit the Thurine wine goeth before

fore them all. As for the wines of Lagaria, which bee made of the grapes not farre from Grumentum, there goeth a right great name of them, by reaſon that *Meſſala* uſed ordinarily to drink thereof, and thereby was ſuppoſed to preſerve his health ſo well. Of late daies there bee certain wines in Campaine growne into credite (like as they have gotten new names) by good ordering and husbandrie, or by chaunce, I know not whether; namely, thoſe of Trebellia, foure miles from Naples; of Caulium neare to Capua: and laſt of all, the Trebulaine wines within their own territorie: for beforetime they were ever counted no better than common wines for every man to drinke, no more than the Trifolines, from whence they vaunt of their deſcent. As for the wine of Pompeij, a towne in the kingdome of Naples, neither it nor the Vine whereof it commeth, will laſt above ten years at the moſt: after which tearme, the elder they both bee, the worſe they are. Beſides, they are found by experience to cauſe the headach, inſomuch, as if a man drink thereof over night, hee ſhall be ſure not to have his head in good tune untill noone the morrow after. By which examples above rehearſed, it is plaine in my conceit, that the goodneſſe of the wine ſtandeth much upon the ſoile and the climate, and not in the grape: ſo as a needleſſe and endleſſe matter it is to reduce all kind of wines to a certaine number, conſidering, that one and the ſelfeſame Vine planted in diverſe places, hath ſundrie operations, and maketh varietie of wines. Now as concerning the wines of Spaine, the Laletane vineyards are much ſpoken of for the plentie and abundance of wine that they yeeld: but thoſe of Tarracon, Arragon, and Laurone, are much praiſed and renowned for the fine and neat wines which they make. As for the wines that come out of the Iſlands, and namely, the Baleares, they are comparable to the very beſt in Italie.

I am not ignorant, that moſt men who ſhall read this Treatiſe, will thinke that I have omitted and overpaſſed many wines: for every man liketh his owne; and as ones fancie leadeth, ſo goeth the voice and the crie, and there runs the Hare away. It is reported, that one of *Auguſtus Cæſars* freed men (reputed for the fineſt taſter that hee had about his court, and who knew beſt what would content his pallat, and pleaſe his tooth) upon a time when he taſted the wine that was for the Emperours bourd, at what time as he made a feaſt, ſaid to one of the gueſts at the table, That the ſaid wine indeed had a new and ſtraunge taſt, and was none of the beſt, and thoſe that were in name; howbeit (quoth he) this is for the Emperours cup, and willingly will he drinke of no other, notwithſtanding it be but a homely wine made hereby in the countrey, and not far fetched. And now for a finall concluſion of this matter, I cannot denie but that there bee other wines which deſerve to bee numbred among thoſe that are right good and commendable, howbeit, ſuffice it ſhall to have written of theſe, which by the common opinion and conſent of the world are held for the better.

Chap. vii.

Of Wines beyond-ſea.

IT remaineth now to ſpeake of outlandiſh Wines beyond the ſea. Firſt and formoſt therefore, next to thoſe wines renowned by the Poët *Homer*, and whereof we have written before, beſt eſteemed alwaies were the wines of the Iſlands Thaſos and Chios: and namely that of Chios which they call Aruſium or Aruiſium. *Eraſiſtratus* the moſt famous Phyſician of his time, matched with theſe the Lesbian wine; and his authoritie gave credite unto it: & this was much about the ſixe hundred yeare after the foundation of Rome. But in theſe daies there is no wine to that of Clazomene, ever ſince that they began to put thereto leſſe ſea-water for to ſeaſon it, than their cuſtome was. As for the wine of Lesbos, it hath a ſent and relliſh of the ſalt water naturally of it ſelfe. Neither is the wine that commeth from the hill Tmolus in any regard, as a wine to be drunk alone, but it ſerveth as a ſweet cuit to mingle with other wines that bee hard: for thereby their greene verdure will ſeeme more mild and pleaſant, yea, and withall to have their ripe age: for no ſooner is it tempered therewith, but they taſt preſently elder than they bee. Next after theſe for goodneſſe, follow in their courſe the wines of Sycione, Cypres, Telmeſſus, Tripolis, Berytus, Tyrus, and Sebennys. As for this wine laſt rehearſed, it is made in Ægypt, a countrey much renowned for three kinds of grapes there, to wit, Thaſia, Æthalos, and Peuce. Next in price & account be theſe following, the Hippodomantian, the Myſticke, Cantharite, and the Gnidian wine of the firſt running and unpreſſed, alſo that of Catacecaumene, a region ſo called, for that it ſeemeth

meth all burnt; of Petra, and Mycone. As for the wine Mesogites, it is knowne to make head-ach: neither is the wine of Ephesus holsome & healthfull, because it is sophisticated with a kind of cuit halfe sodden, called Defrutum, and sea-water. As for the wine of Apamea, by report it commeth very neare to a kind of Mede, and will very well agree withall, like as Prætutium in Italie. For otherwise, this is the propertie in generall of all sweet wines, that they will not well sort together, & be good still. Touching the wine Protagium, it is now growne out of remembrance: and yet the Physicians of *Asclepiades* his sect and schoole, gave praise unto it next the Italian wines. The learned Physician *Apollodorus*, in his treatise that he compiled of good wines, which he recommended unto king *Ptolomæus* for to drink, as meet for the health of his person, (for default of Italian wines then unknowne) highly praised the wines in Pontus, and principally that which is called Naspercenites: next to it the Orœoticke, the Oeneates, that of Leucadia, of Ambracia; and (which he preferreth above all the rest) the wine of Peparethus: and yet hee said, that there went the lesse name and opinion of it, because after sixe yeares it looseth the strength and pleasant tast that it had.

Chap. viii.

Seven kinds of salt wine.

THus farre forth have we discoursed of the very flower of good wines, according to the regions where naturally they come of the grape. Now are wee to treat of wines compounded. And first, among such wines is that, which they called Biæon (an invention of the Greeks) which above all others was most esteemed: and great reason, for devised it was for the cure of many maladies, as we shall shew hereafter in our treatise of Physicke. The making whereof is in this manner: Take grapes gathered somewhat before they bee ripe: let them lie to drie and parch in the hot Sunne for three daies, and be turned duly thrice a day: upon the fourth day presse them forth for wine, put the liquor up in barrels, and so let it worke in the Sunne. Howbeit, hereto they put a good quantitie of salt sea-water. But this devise was learned first of a false theevish knave, who having robbed his maister and drunke up a good deale of his wine, filled up the vessell again and made just measure with sea-water. White wine if it bee ordered in this sort, is called Leucochrum by the Greekes: but in other nations the like wine so made is named Tethalassomenon. As for Thalassites, it is a kind of wine so called, for that the vessels when the wine is new tunned, be cast into the sea, and there let to remaine for a time, by which meanes the wine will soon seeme old and readie to be drunke. Furthermore, *Cato* also here among us hath shewed the way how to make the Greekish wine Coum, of our owne Italian wine: but above all hee hath set downe an expresse rule, to let it first take the maturitie and perfection foure yeares in the Sunne. As for the wine of Rhodes, it is much like to that of Coos. But the Phorinean wine is more salt than the wine of the Isle Coos. Finally, all transmarine or beyond-sea wines are thought in seven or sixe yeares at the least, to come unto their middle age.

Chap. ix.

Foureteene sorts of sweet wines.

ALwaies the sweeter that they be in tast, the lesse fragrant & odoriferous they are: the thinner and smaller that they be, the more ever they smell to the nose. Of wines there be foure principall colours, white, yellow, red, and blacke. As for Psythium and Melampsythium, they be certaine kinds of cuit, having a severall tast apart by themselves, not resembling wine indeed. And for Cicibelites made in Galatia, it tasteth alwaies like new wine: so doth Halyntium in Sicilie. For as touching Syræum, which some call Hepsema, and we in Latine Sapa [*i.* Cuit] it is a meere artificiall thing, the devise of mans wit, and no worke of Nature: namely, when new wine is sodden away a third part: for when it boileth to the halfe, we then call it Defrutum. And in very deed, all these bee inventions to sophisticate and counterfet honie. But those beforenamed retaine the naturall tast of the grape and the soile whereof they doe consist. Next to these cuit-wines of Candie; those of Cilicia, Affrick, Italie, and the provinces confronting thereupon, are held for the best. Certaine it is, That they be made of one grape, which the Greekes call Stica, and we Apiana [*i.* the Muscadell] and of another named Scirpula: the which have been suffered

fered a long time to hang in the Sunne upon the Vine untill they bee ſcorched and parched: or elſe over the vapour of ſcalding oile. Some there be that make them of any ſweet grapes whatſoever, ſo that they be let to concoct before in the Sunne, untill they be white and drie, ſo farre forth, as little leſſe than halfe of their weight be conſumed: which done, they ſtamp them and ſo gently preſſe them. Then looke how much liquor they have preſſed foorth, ſo much pit water they put to the cake that is preſſed, that thereof they may have a cuit of a ſecond running. But they that be more curious & take upon them to make a daintier cuit, drie the grapes in manner aforeſaid, but they take forth the ſtones and graines within: they ſtrip them alſo from the ſteeles and tailes that they hung by: and ſo after they bee well drenched and infuſed in ſome excellent wine, untill they bee ſwelled and plumpe, they preſſe them. And certainely this faſhion is ſimplie the beſt of all others. Put to the cake thereof, water as before, and after the ſame manner yee ſhall have a cuit of a ſecond ſort. Now there is a kind of wine which the Greekes call Aigleuces, that is to ſay, alwaies ſweet like new wine, of a middle nature betweene the common ſimple wine and the ſweet: and this commeth not unto it by kind, but by heed taken in the boiling; for it is not ſuffered to ſeeth and worke: and this is the tearme, wherby is ſignified the alteration of new Muſt into wine. To hinder therefore that it worke not, (as naturally it will) they have no ſooner tunned or filled it out of the Vat, but immediately they douſſe the veſſels full of new Muſt in the water, and let them there continue untill mid-December be paſt, and that the weather be ſetled to froſt and cold, and likewiſe the time expired of the working within the ſaid veſſels. Moreover, there is another kind of wine naturally ſweet, which in Provance & Languedoc is called Dulce [i. ſweet] and namely, in the territorie of the Vocontians. For this purpoſe they let the grapes hang a long while upon the Vine, but firſt they wryth the ſteele that the bunch hangeth to. Some make inciſion into the very Vine braunch, as farre as to the pith and marrow within (to divert the moiſture that feedeth the grape:) others lay the cluſters a drying upon tile-houſes: and all this is done with the grapes of the Vine Helvenaca. There be that range in a ranke of theſe ſweet wines, that which they call Diachyton. For which effect, they drie the grapes againſt the Sunne (howbeit in a place well encloſed) for ſeven daies together, upon hardles, ſeven foot likewiſe from the ground: in the night ſeaſon they ſave them from all dews, and ſo upon the eight day they tread them in the wine preſſe: and thus they draw forth a wine of an excellent ſavor and taſt both. A kind of theſe ſweet wines, is that which they name Melitites, [in manner of a Braget, Meade, or Metheglin.] Howbeit, different it is from meade or honied wine which the Latines call Mulſum; made of old wine that is hard, and a little honnie: whereas the foreſaid Melitites conſiſteth of five gallons of new tart wine ſtill in the verdure, whereto is added one gallon of honie, and a *cyath of ſalt, and ſo boiled all together. But I muſt not forget to place among theſe ſundrie kinds of drink, the liquor Protropum, for ſo ſome call new wine running it ſelfe from the grapes, before they bee troden and preſſed. But to have this good, and ſo to ſerve the turne, ſo ſoone as it is put up into proper veſſels for the purpoſe, it muſt be ſuffered to worke: and afterwards to reboile and worke againe for fortie daies ſpace the Summer followings even from the very beginning of the dog daies, and ſo forward.

* an ounce and a halfe.

Chap. X.

Of weake and ſecond Wines, three kinds.

THe ſecond Wines (which the Greekes call Dexateriæ, *Cato* and wee Romanes name Lora) cannot properly and truly be called Wines, being made of the skins and ſeeds of grapes ſteeped in water: howbeit, reckoned they are among courſe houſhold wines for the hines and meinie to drinke. And three kinds there be of them. For ſometime to the tenth part of the new wine that hath beene preſſed out, they put the like quantitie of water, and ſuffer the foreſaid refuſe of the grapes to ſoke therein a day and a night: which done, they preſſe it forth againe. A ſecond ſort there is, which the Greekes were wont to make in this manner: They take a third part of water in proportion of the wine that was preſſed forth, and after a ſecond preſſing, they ſeeth it to the waſting of the third part. The third is that which is preſſed out of the wine lees, and this *Cato* calleth Fœcatum, [i. Wine of lees.] But none of theſe wines or drinkes will endure above one yeare.

Chap.

Chap. xi.

What neat wines began of late to be in request in Italie.

IN this treatise of wines I cannot omit this observation: That whereas all the good wines, properly so called and knowne in the whole world, may bee reduced in foureſcore kinds or thereabouts; two parts of three in this number, may well be counted wines of Italie: which in this regard farre surpasseth all other nations. And hereupon ariseth another thing more deepely to be noted, That these good wines were not so rife nor in such credite from the beginning, as now they be.

Chap. xii.

Observations touching wine.

TO say a truth, Wines began to grow into reputation at Rome, about sixe hundred yeares after the foundation thereof, and not before. For king *Romulus* used milke when hee sacrificed to the gods, and not wine: as may appeare by the ceremoniall constitutions by him ordained, as touching religion; which even at this day bee in force, and are observed. And king *Numa* his successour made this law Posthumia in his latter daies, LET NO MAN BESPRINCKLE THE FUNERALL FIRE WITH WINE. Which Edict no man doubteth but he published and enacted in regard of the great want and scarcisitie of wine in those daies. Also by the same Act hee expressely did prohibite to offer in sacrifice to the gods, any wine comming of a Vine plant that had not ben cut and pruned: intending by this devise and pretence of religion, to enforce men to prune their Vines, who otherwise would set their minds upon husbandrie only and plowing ground for corne, and bee slow ynough in hazarding themselves for to climbe trees, whereunto Vines were planted. *M. Varro* writeth, That *Mezentius* the king of Tuscane aided the Rutilians of Ardea in their wars against the Latines, for no other hire and wage but the wine and the vines which then were in the territorie of Latium.

Chap. xiii.

Of the auncient usage of wine: and the wines in old time.

IN auncient time, women at Rome were not permitted to drinke any wine. We read moreover in the Chronicles, That *Egnatius Mecennius* killed his owne wife with a cudgell, for that he tooke her drinking wine out of a tun; and yet was hee cleared by *Romulus*, and acquit of the murder. *Fabius Pictor* in his Annales reporteth, That a certaine Romane dame, a woman of good worship, was by her owne kinsfolke famished and pined to death, for opening a cupbord, wherein the keies of the wine-sellar lay. And *Cato* doth record, that hereupon arose the manner and custome, That kinsfolke should kisse women when they met them, to know by their breath whether they smelled of Temetum: for so they used in those daies to tearme Wine: and thereof drunkennesse was called in Latin Temulentia. *Cn. Domitius* (a judge in Rome) in the like case pronounced sentence judicially against a woman defendant, in this forme, THAT IT SEEMED SHE HAD DRUNKE MORE WINE WITHOUT HER HUSBANDS KNOWLEDGE, THAN WAS NEEDFULL FOR THE PRESERVATION OF HER HEALTH, and therefore awarded definitively, That she should loose the benefit of her dowrie. Certes, the Romans for a long time made great spare of wine. *L. Papyrius* lord Generall of the Romane armie, when he was at the point to joine battell with the Samnites, made no other vow, but this, That he would offer unto *Iupiter* a little cup or goblet of wine, in case hee atchieved the victorie and woon the field. Over and besides, we find in histories, that among donatives and presents, certaine sextars or quarts of milke have been many times given, but never any of wine. The same *Cato* abovenamed, after his voiage into Spaine (from whence he returned with victorie and triumph) in a solemne speech that hee made unto the people, protested in these words and said, *No other wine have I drunke since I went, than the very marriners have.* How farre unlike was he to men in these daies, who sitting at the table, have their cup of strong wine by themselves, and give to their guests other small wines to drinke: or if they suffer them to drinke all one and of the best at the beginning of the feast, they will

will be ſure to chaunge and to ſerve them with worſe ſoone after. In old time, the beſt wines uſed at feaſts were aromatized and ſpiced with ſweet Myrrhe: as appeareth in the Comœdie of *Plautus* entituled Perſa. And yet it ſhould ſeeme there, that ſweet Calamus was to be added beſides. And hereupon it commeth, that ſome have thought, how our forefathers in times paſt tooke moſt delight in ſuch ſpiced cups and Ippocras wines. But *Fabius Dorſenus* the Poet, ſufficiently declareth and decideth this point in theſe verſes, when he ſaith:

Mittebam vinum pulchrum, Murrhinam.

I ſent neat wine,
Which hight Myrrhine.

And againe in his Comedie *Acharistio*:

Panem & Polentam, vinum Murrhinam.

Both bread and grewell I did preſent,
And Myrrhine wine of pleaſant ſent.

I ſee moreover, that *Scævola*, *Lælius*, and *Atteius Capito* were of the ſame mind. For in the Comedie of *Plautus* entituled *Pſeudolus*, thus it is written:

Quod ſi opus eſt ut dulce promat
Indidem, ecquid habet? Char. *Rogas?*
Murrhinam, paſſum, Defrutum, mella.

Of dulcet wine if there be need,
What hope is there from thence to ſpeed?
Char. Why aske you that? he furniſh'd is
With Murrhin, Cuits, and Meade ywis.

By which a man may ſee evidently, that Murrhina was not only counted a wine, but reckoned alſo among the ſweet and delicate wines.

Chap. xiiii.

Of wine ſtore-houſes: and of Opimian wine.

That there were wine-ſellars at Rome, and that they uſed there to tun up wine in the 633 yeare after the foundation thereof, appeareth plaine by a good proofe of the Opimian wine: and even in thoſe daies Italie knew her owne good, and what it was to maintain vineyards. Howbeit, as yet were not thoſe wines in credite, which now are ſo rife and in ſo great account. And therefore it is, that all the wines of that time beare the onely name of that one Conſull, and be called Opimian. And thus afterwards alſo in proceſſe of time, the wines that came from beyond the ſeas for a long ſpace, were in much requeſt, even untill our grand-fathers daies: yea, and after that, the Falerne wines were in name and called for, as may appeare by that verſe of the Comicall Poët:

Quinque Thaſij vini inde depromam, Falerni bina.

To meaſures five of Thaſian wine,
I will draw twaine of Falerne fine.

In the 675 yeare after the building of Rome, *Pub. Licinius Craſſus* and *L. Iulius Cæſar*, Cenſors for the time being, publiſhed an edict and proclaimed, That no man should sell any Greeke vvine or Aminean, but after eight Asses the Amphor or Quadrantum. For theſe be the very expreſſe words of the ſaid Edict. Now was Greeke wine of ſo great price and eſtimation, that a man was but allowed one draught thereof at a meale, were the cheare never ſo great, and the feaſt right ſumptuous. But what wines were in requeſt ordinarily at the bord, *M. Varro* ſheweth in theſe words: *L. Lucullus* (quoth he) while he was a boy, never ſaw at his

his fathers boord Greek wine ſerved up but once at a meale, how good ſoever the fare was otherwiſe. Howbeit, himſelfe when he returned out of Aſia, in a congiarie or largeſſe that hee gave unto the people, made a dole and diſtribution of more than an hundred thouſand meaſures, of gallons apeece. *C. Sentius*, whom of late daies we ſaw Pretour of Rome, teſtified, that hee never ſaw any wine of Chios brought into his houſe, before that the Phyſician preſcribed and ſet it downe for the *Cardiaca paſsio*, or the trembling of the heart, whereunto hee was ſubject. But contrariwiſe *Hortenſius* when he died, left above ten thouſand barrels full of that wine to his heire. And thus much out of *M. Varro*.

Chap. XV.

Of Cæſars bountie and liberalitie in wine.

BVt what ſhould wee ſay of *C. Iulius Cæſar* Dictatour? In that ſolemne feaſt of his which hee made at his triumph, did not he diſtribute among his gueſts Falern wines by the whole barrels, and Greeke wine of Chios by the rundlets? After his returne out of Spaine with victorie and triumph, he likewiſe gave away a largeſſe of wine as well Chian as Falerne. But at the roiall dinner which he made when he entred upon his third Conſulſhip, he cauſed all the hall to bee ſerved throughout with Falerne, Chian, Lesbian, and Mamertine wines: which was the firſt time that ever any man ſaw the ſervice of foure ſeverall wines at one feaſt. Now in farther proceſſe of time, and namely about the 700 yeare after Rome cities foundation, all other wines began to beare a name and come in requeſt.

Chap. XVI.

Of artificiall or made wines.

COnſidering all that hath beene written, I nothing marvell at ſuch an infinite numbers of compound and artificiall wines deviſed in old time, all for the uſe of Phyſicke, whereof wee will now treat in more ample manner. To begin therfore with Wine-verjuice called Omphacium, how it ſhould be made (for perfumes and odoriferous ointments) wee have ſhewed in the former booke. As for the wine named Oenanthinum, it is made of Labruſca, that is to ſay, the wild Vine, in this wiſe: Take two pound of the flowers of the wild Vine aforeſaid; let the ſame bee ſteeped in a meaſure of new wine, containing about twelve *gallons, for the ſpace of thirtie daies, and then be chaunged out of that veſſell into another. Moreover, the root and the grapes of the ſaid wild Vine, are good for curriers to dreſſe their leather. The ſame grapes a little after they have done blooming, are taken to be a ſingular remedie for to coole thoſe that be troubled with hote and ardent diſeaſes, for naturally they be (as men thinke) exceeding cold: and indeed many of theſe grapes die in the hote time of Summer before the reſt which are called Solſtitiales: but all of them never come to full and perfect ripeneſſe. Now if you would keepe Pullein from pecking grapes, take theſe of the wild Vine before they be throughly ripe, mingle & ſeeth them with their meat: for this will take away all their appetite that way, and breed a loathing after all grapes.

*12 congios.

To come now unto the artificiall wines beforenamed: the firſt of them, namely that which they call Adynamon, [*i.* without ſtrength] is made of very wine in this manner: Take of new white wine twentie Sextars [*i.* quarts:] of water halfe as much: let them boile together untill the meaſure of water beforeſaid bee conſumed. Some take of ſea-water ten Sextares, of raine water as much: and when they be mingled together, ſuffer them to worke in the hote Sunne for the ſpace of fortie daies. This drinke they uſe to give unto patients, for ſuch maladies as they feare wine would be hurtfull to. A ſecond made wine there, is called Millet wine, after this ſort: Take of Millet ſeed that is ripe, huske, head and all, a pound and a quarter, put it into two gallons of Muſt or new wine: after that it hath lien there infuſed ſeven moneths, let the liquor run from it into another veſſell, and keepe it for your uſe. As touching the wines of Lotus, as well the tree and ſhrub, as the hearbe, wee have ſhewed ſufficiently how they ought to be made. Moreover, there bee many wines made of ſundrie fruits, which wee will write of hereafter more at large: with a ſupplement and addition of ſuch interpretations onely as be neceſſarie. And in the firſt place commeth the Date-wine, which the Parthians, Indians, and all the nations of the Eaſt in generall

A nerall doe ordinarily uſe. A Modius or pecke of ripe and ſweet Dates, which they call Chydeæ, they let lye to ſteepe in three gallons of water, and ſo preſſe for a liquor for the Date wine. Alſo the Figge-wine Sycites, of the figge which ſome call Palmiprimum (as a man would ſay, Dates fellowes, or next to Dates) others Catorchites, is made after the ſame faſhion. But if a man liſt not to have it ſo ſweet, in ſtead of water they uſe to put as much of the ſtones, skins, and ſeeds of grapes. Of the Figge of Cypreſſe there is an excellent vinegre made: yea and a better than it of the Alexandrine figges, to wit, growing upon the Sycomore. Likewiſe a wine is made of the fruit in Syria, called Siliquæ; as alſo of peares and all kind of apples. As for the wine of Pomegranates, the Greekes name it Rhoïtes: beſides the fruit of the Corneil or wild Cherrie-tree; Medlars, Cerviſes, drie Mulberries, and Pine-nuts, doe yeeld ſeverall ſorts of wines. As for theſe Pine-nuts, they muſt lie ſteeped in new wines before the wine be preſſed out of them. The reſt
B all be pleaſant enough of themſelves, and will ſerve alone for to make wines. The manner of making Myrtle wine (according to the receit and preſcription of *Cato*) wee will declare ſoone hereafter. For the Greekes have another way of their owne, to wit, when they have ſodden in white Muſt or new wine, the tender braunches of the Myrtle, togither with the leaves, and then ſtamped the ſame, they put a pound thereof in three gallons more of Muſt, and cauſe it to boile untill ſuch time as a third part of the wine be conſumed. Now that which is made after the ſame manner of the wild Myrtle-berries, they call Myrtidanum; and this will colour and ſtaine ones hands blacke.

Furthermore, the hearbs of the garden doe affourd us many wines, namely Radiſh, Sparage, Savorie, and Majoran, Origan, Smallach ſeed, Southernwood, wild Mints, Rue, Nep or
C Calaminth, running Thyme, and Horehound. To make theſe wines, take of the hearbs aboveſaid, two handfuls, and when they be ſtamped, put them into a little barrell of new wine containing twelve or thirteene gallons, togither with a wine quart of Cuit ſodden to the thirds, and a pint of ſea water. But for the wine of Navewes, you muſt take eleven drams of them, and two quarts of new wine, and ſo put them togither in manner aforeſaid. In like ſort alſo the wine Squilliticum is made of the the root of Scilla, or the ſea Onion.

To proceed unto wines made of flowres, you have firſt and foremoſt wine Roſat, after this manner: Take the weight of fortie deniers [*i.* eight ounces] of Roſe-leaves well ſtamped, put them into a linnen cloth, togither with a little weight, that they may ſettle downward and not
D flote aloft; let them hang thus in twentie Sextars [*i.* three gallons] and two wine quarts of Muſt; keepe the veſſell cloſe ſtopped in any caſe for three moneths, then open it and ſtraine the ſaid floures unto the liquor. In like manner is there a wine made of the Celtick Spikenard, as alſo of the Nard-ſavage. I find alſo, that they uſe to make a kind of ſpiced wine or Ipocras, not for ſweet perfumes and ointments onely, but alſo for to drinke. At firſt (as I have ſhewed) they made theſe aromaticall wines with myrrhe only, but ſoone after they added thereto Nard Celtick, ſweet Calamus, and Aſpalathus: either ſlicing theſe drugs, or putting them by gobbets into new Muſt or ſome dulcet wine. Some aromatize their wine with Calamus, Squinanth, Coſtus, Spikenard,
E Amomum, Caſia, Cinamon, Saffron, Dates, and Azara-bacca, put thereto in like manner by gobbets. Others take Spikenard and Malabathrum, of each halfe a pound to two gallons of new wine. Much after the ſame manner we ſpice our wines now adaies alſo, but that we adde pepper and honey thereto: which ſome call Condite, others Pepper-wines. Moreover, there is deviſed a wine called Nectarites, made of Elecampane, named by ſome Helenium, of others Medica, Symphyton, Idæa, Oreſtion: and there be alſo that tearme this hearb Nectarea. Now the order of it, is to take of the root fortie drams to ſix Sextars of Muſt or new wine, and hang it in a cloth togither with a weight, in manner aboveſaid. Moreover, there be wines made of other hearbs, to wit of Wormwood, in this ſort: Take of Ponticke wormwood one pound, ſeeth it in fortie Sextars [about ſix gallons and a halfe] of new wine, untill a third part bee conſumed: or without boiling, put certaine handfuls or bunches thereof into a veſſell of wine, and ſo let it lye
F infuſed. After the ſame ſort is Hyſſope wine made, to wit, of three ounces (which is a quarter of a pound) of Cilician Hyſſope caſt whole as it is into two gallons of Muſt, and ſo let them worke togither: or elſe ſtampe the Hyſſope, and ſo put it into wine: but both theſe wines are made another manner of way, namely, by ſowing or ſetting Wormwood and Hyſſope at the verie root of the vine-plant: for ſo *Cato* teacheth us to make Ellebore wine, of blacke Ellebore or Bearefoot growing at the vine root. And in like manner alſo is made the Scammonite wine.

A wonderfull nature and propertie that these vines have, To draw and sucke into them the very taſt of other hearbs and plants that are set neare unto them: for even so all the grapes about Padua have a rellish of the Willowes and Osiers that grow there in the marish grounds. In this wise the men of Thasos doe plant and sow either Ellebore or wild Coucumber, or els Scammonea, about their vines, to make thereof their devilish wine Pthorium, so called, because it causeth a slip and procureth untimely birth. Of more hearbs besides, there bee other wines made: the vertues of which hearbs, we will set downe elsewhere in place convenient: and namely, of Stœchos, the root of Gentian, of Tragoriganum, of Dictamum, Asarabacca, of Daucus or yellow Carot, Sauge, Panace, Acorus or Galangal, Conyza or Cunilago, Thyme, Mandragoras, and Squinanth. More such wines there were yet, which the Greeks called Scyzinum, Iræomelis, and Lectispagites; but as they be growne now out of use, so the manner of making is unknowne.

As touching wines made of trees and shrubs, their manner was to seeth the berries or the greene wood of both the Cedars, the Cypresse, the Bay, Iuniper, Terebinth, Pine, Calamus, and Lentiske, in new wine. In like manner, the very substance of Chamelæa, Chamæpithys, and Germander. Last of all, the flowers also of the said plants serve to make wines, namely by putting in to a gallon of new wine in the vat, the weight of ten deniers or drams of the flowers.

Chap. xvii.

Of Hydromel, and Oxymel: [i. honyed water, and honyed vinegre.]

THere is a wine called Hydromel, made of water and honey onely: but to have it the bettet, some doe prescribe raine water, and the same kept five yeeres for that purpose. Others who are more wise and skilfull herein, doe take raine water newly falne, and presently seeth it untill a third part be boiled away; then they put thereto a third part also of old hony in proportion to it: and so let them stand togither in the Sunne for fortie daies togither, from the rising of the Dog-starre. Others, after they have remained thus mingled and incorporate togither ten daies, put it up and reserve it close stopped for their use; and this is called Hydromel: which when it is come to some age, hath the very taſt of wine: and no place affourdeth better than Phrygia.

Moreover, vinegre was wont to be tempered with honey, [See how curious men have been to trie conclusions in every thing!] which they called Oxymel, and that in this manner: *Recipe*, of honey, ten pounds or pints; of old vinegre, five pints; of sea salt, one pound; of raine water, five Sextares [i. a gallon within one quart:] Boile them all togither at a soft fire, untill they have had ten plawes or waulmes: which done, poure them out of one vessell into another, and so let the liquor stand & settle a long time, untill it be stale. All these wines and compositions thus brued, *Themison* (an Author highly renowmed) hath condemned and forbidden expressely to be used. And to say a very truth, it seemeth that the use of them was never but in case of necessitie: unlesse a man would beleeve and say, that Ipocras, spiced wines, and those that be compounded of ointments, are Natures worke; or that shee brought foorth plants and trees to no other end, but that men should drinke them downe the throat. Howbeit, the knowledge surely of such experiments, be pleasant and delectable unto men of great wit and high conceit, whose noble spirits cannot be at rest, but ever inventive and searching into all secrets. Now to conclude this point, certaine it is and past all question, that none of all these compositions (unlesse it be those which come to their perfection by age and long time) will last one yeere full out: nay most of them will not keepe good one moneth to an end.

Chap. xviii.

Certaine straunge and wonderfull kinds of wine.

WIne also hath prodigious and miraculous effects: for (by report) in Arabia there is a wine made, which being drunke will cause barrain women to beare children; and contrariwise drive men into madnes. But in Achaia principally about Carynia, the wine maketh women fall into untimely travell: nay if a woman great with child doe eat but the very grapes, they will slip the fruit of their wombe before their time: and yet both grape and wine differ not in taſt from others. They that drinke the wine comming from the cape of Trœzen, are thought unable for generation. It is reported, that the Thasiens doe make two kinds of wine of

contrary

contrary operations; the one procureth ſleepe, the other cauſeth watching. Among them there is a vine called Theriace, the grape whereof, as alſo the wine, cureth the ſtings and biting of ſerpents, as it were a moſt eſpeciall Treacle. As for the vine Libanios, it carrieth the odor and ſmell of Frankincenſe, and therefore is uſed in ſacrifices to the gods. But contrariwiſe another named Aſpendios, is utterly condemned for that purpoſe, and no wine thereof is employed at the altar: they ſay alſo, that no Foule will touch the grapes thereof. There is a kind of grape in Ægypt, which they call Thaſia, exceeding ſweet it is, and looſeth the bellie. But contrariwiſe there be in Lycia, that bind as much and cauſe coſtiveneſſe. The grapes Ecbolides in Ægypt, if they bee eaten, cauſe women with child to be delivered before their time. Some wines there be, that as they lie in the verie cellar, will turne and proove ſower about the riſing of the Dog-ſtarre; but afterwards will recover their verdure, and become quick and freſh againe. In like manner there be wines, that upon the ſea will chaunge: howbeit the agitation thereof, cauſeth thoſe wines that endure it to the end, to ſeeme twice as old as they be indeed.

Chap. xix.

What Wines they be that may not be uſed in Sacrifices: and what waies there are to ſophiſticate new wines.

FOraſmuch as our life ſtandeth much upon religion and divine ſervice, we are to underſtand; That it is held unlawful to offer unto the gods before ſacrifice, the wine of any vine that hath not been cut and pruned; or that hath been ſmitten and blaſted with lightning; or ſtanding neare to a jebbit or tree whereon a man hath hanged dead; or the grapes whereof have been troden by men whoſe leggs or feet have been wounded; neither is that wine allowable for this purpoſe, which hath been preſſed and run from the refuſe of grape-ſtones and skins once bruiſed and cruſhed in the preſſe; or laſt of all, if the grapes have been filed by any ordure or dung falne from above thereupon. Moreover, Greeke wines are rejected from this holy uſe, becauſe they have water in them. Furthermore the vine it ſelfe is holden good to be eaten, namely, when the burgens and tendrils bee firſt ſodden, and afterwards preſerved and kept in vinegre, brine, or pickle. Over and beſides, it were very meet and convenient to ſpeake alſo concerning the manner of preparing and ordering wine, ſeeing that the Greekes have travailed in that point ſeverally, and reduced the rules thereto belonging, into the forme of an Art; and namely, *Euphronius*, *Ariſtomachus*, *Contades*, and *Hiceſius*, are therein great profeſſors. The Africans uſe to mitigate and allay the tartneſſe of their wines with plaſtre, yea and in ſome parts of their countrey, with lime. The Greeks contrariwiſe doe fortifie and quicken them with clay, with powder of marble, with ſalt, or ſea water. And in ſome places of Italy, they uſe (to the ſame effect) the ſhavings and ſcrapings of ſtone-pitch. Alſo it is an ordinarie thing in Italy and the provinces thereto confining, for to condite their new wines and to ſeaſon them with roſin: yea and in ſome places they mingle therewith the lees of other old wine or vinegre. Oftentimes alſo they make ſlibber-ſauces of it ſelfe without any other mixture; namely, when they boile new wine ſufficiently to the proportion of the ſtrength, untill the hardneſſe do evaporate, and that it wax mild and ſweet: but being thus ordered, it will not laſt (they ſay) above one yeare. In ſome countries they uſe to ſeeth their new wine to the conſumption of a third part, and make it cuit, with which they are wont to delay the ſharpneſſe and ſtrength of other wines, and make them pleaſant. But both in this kind of wine and in all others, the veſſels ought to be prepared for the purpoſe, and ſeaſoned with pitch: the treatiſe of which, we will put off unto the next booke, where wee purpoſe to treat thereof, and the manner of making it.

Chap. xx.

Of divers kinds of Pitch and Roſins. The manner of the ſeaſoning and confecture of new Wines. Alſo of Vinegre and Salt.

AMong trees that yeeld from them a liquid ſubſtance, ſome there be in the Eaſt countries, and others in Europe, which ingender Pitch and Roſin. Aſia likewiſe between both, hath of either ſide of it, ſome ſuch trees. As for the Eaſt, the Terebinths put out Turpentine, the beſt and cleereſt Roſin of all others: next to them, the Lentiskes alſo have their Roſin, which

they call Maſtick. After which, the Cipreſſe bringeth forth a third roſin, but it is of a moſt ſharp and biting taſt. All theſe trees (I ſay) carie a roſin only, and the ſame thin and liquid: but the Cedar ſendeth out a thicke ſubſtance, and good to make pitch and tarre. As for the roſin or gum Arabicke, it is white of colour, ſtrong in ſmell, untoward & troubleſome to him that ſhall boile it. That of Iurie is harder, yea, and of a ſtronger ſavour than Turpentine. The Syriacke gum reſembleth the honie of Athens. The Cyprian excelleth all others: of a fleſhie ſubſtance it is, and like in colour to honie. The Colophonian is deeper of colour, and reddiſh: beat it to pouder in a morter, it proveth white: but it carieth a ſtrong ſmell with it; which is the reaſon, that the perfumers and makers of ointments have no uſe thereof. As for that which the Pitch trees of Aſia doe yeeld, it is paſſing white, and the Greekes call it Spagas. All roſins generally will diſſolve in oile. Some thinke verily, that potters clay will likewiſe doe the ſame. But I am abaſhed and aſhamed to report, how in theſe daies the ſame pitch whereof we ſpeak, ſhould be in ſo great account as it is, for making of pitch plaiſters, to fetch off the haire of mens bodies, and all to make them more ſmooth and effeminate. Howbeit, the manner of ſeaſoning new Muſt therewith (that when it is perfect wine it may ſmell of pitch, and bite at the tongues end) is to beſtrew it with the pouder of pitch at the firſt working, the heat whereof is commonly paſt and gone in nine daies. And ſome thinke, that the wine will bee the ſtronger, if the raw and greene flower of the roſin, as it iſſueth freſh out of the tree, bee put therein; for it will quicken a ſmall and weake wine. Now this mixture and medicine of wine [called Crapula] made thus of roſin, hath contrarie effects: for if the wine be over-headie and ſtrong, it allaieth and mortifieth the hurtfull force thereof: but if it be too weake, or drinke dead and flat, it reviveth againe, and giveth it a ſtrong taſt. In Liguria, and principally along the Po, they uſe to ſeaſon their wines, and bring them all to their ſeverall perfections in this manner. If the wine when it is new, be mightie and ſtrong, they put in the more of this medicine or confection called Crapula: if it be mild and ſmall, then the leſſe goes into it: and keeping this gage with their hand, they make both good. Some would have one wine brued with another, the weaker with the ſtronger, and ſo (forſooth) there muſt needs ariſe a good temperature of both together: and verily there is not a thing in the world againe, which hath in the nature thereof ſo great varietie.

In ſome countries, if new wine worke of it ſelfe a ſecond time, it is thought to bee a fault and meanes to corrupt it: and indeed, upon ſuch a chaunce and unhappie accident it looſeth the verdure and quicke taſt: whereupon it getteth the name of Vappa, and is cleane turned to bee dead or ſoure: in which regard alſo, we give a man that name by way of ſcorne and reproch, calling him Vappa, when he is heartleſſe, void of reaſon and underſtanding. If it were vinegre indeed, it were another matter: for ſurely although wine degenerat into it by way of corruption and putrifaction, yet a vertue and force it hath, good for many ſpeciall uſes, and without which it were not poſſible to live ſo delicately at our table as we doe. Moreover, the world is ſo much given to keepe a bruing, tempering, and medicining of wines, that in ſome places they ſophiſticate them with aſhes, as it were with plaiſter: in other, they fortifie, recover, and make them again by ſuch deviſes as are before ſpecified. But to this purpoſe they take the aſhes to chuſe, of vine cuttings, or of the oke wood, before any other. And forſooth if there be occaſion to occupie ſea-water for this buſines, they preſcribe them to fetch it far from land in the deep ſea; & kept beſides from mid March or the ſpring Æquinox, or at leaſtwiſe from mid-Iune or ſummer ſunne-ſtead; and drawne in the night ſeaſon, and when the North wind doth blow: but if it bee gotten neare the time of vintage, then it ought to be well boiled before it will ſerve the turn. As for the pitch in Italie, that of Brutium or Calabria is reputed for the beſt, to trim thoſe veſſels which are to keep wine. There is made of the roſin of the tree Picea (as alſo in Spain there commeth from the wild Pines) a certain pitch, which of all other is worſt: for the roſin of thoſe trees is bitter, drie, and of a ſtrong ſavor. The difference and ſundrie kinds of pitch, as alſo the manner of making the ſame, we will ſet down in the booke next following, in the treatiſe of wild & ſavage trees. The faults & imperfections of pitch, over and beſides thoſe even now rehearſed (to wit, bitterneſſe, drineſſe, & ſtrong ſent) are knowne by the ſoureneſſe, by the ſtinking ſmoke, and the very aduſtion thereof. But yee ſhall know good pitch by theſe experiments, If the peeces broken from it doe ſhine, if betweene the teeth it relent and be clammie like glew, and have a pleaſant ſharpeneſſe and ſoure taſt withall of the vinegre. In Aſia the pitch is thought beſt which commeth of the trees in mount Ida. The Greeks eſteem the trees of the hill Pieria cheefe for this purpoſe: and *Virgil* commendeth that of Narycia before all.

But

But to returne againe to our burning and ſophiſtication of wines, they that would ſeeme to be cunninger, or at leaſtwiſe more curious than their fellowes, doe mingle therewith blacke Maſticke, which is engendred in Pontus, and is like to Bitumen; and thereto adde the root of Iris or the flower de Luce, and oile. For this is found by experience, That if the veſſels be ſered with wax, the wines therein will not hold, but turne ſoure quickly. Moreover, we daily ſee, that better it is to put up wine into thoſe veſſels, wherein vinegre hath been kept afore, than into ſuch as had dulcet or honied wine. *Cato* ſetteth down a receit to trim and concinnate wine (for that is the very tearm which he uſeth) in this manner: Take of lie aſhes ſodden with cuit boiled to the halfe, one fortieth part; temper it with a pound and a halfe of peniroiall, or ſalt, and otherwhiles with marble braied and beaten into pouder among. Hee maketh mention alſo of brimſtone, but roſin hee nameth with the laſt. But above all he willeth to refreſh & renue the wine when it now beginneth to come unto maturitie & perfection, with new wine which he calleth Tortivum; & I take it, that he meaneth that which ran laſt out of the wine-preſſe: which hee preſcribeth alſo to bee put unto new wines for to get them a freſher colour, as the very tincture of wine: and ſo it will be alſo of a more fattie ſubſtance, and goe downe more glib and merrily. See, ſee, how many deviſes of medicines and ſlibber-ſauces the poore wine is forced to endure, and all to pleaſe our pallat, our eie, and other ſences: and yet ywis we marvell that it is ſo hurtfull to our bodies. Well, would you have an experiment to know when wine is going, or enclining to be dead and ſoure? dip therein a thin plate of lead; if it chaunge colour, take it for a ſigne, that it is in the way of decaying. Of all liquors, wine hath this propertie to vinew, to pall, and to change into vinegre. But a thouſand medicines it doth affoord, and bookes of Phyſicke are full thereof. Moreover, wine lees being dried, will ſerve as a match to keepe fire: and without any other fewell to feed it, yee ſhall have it burne and flame of it ſelfe. The aſhes thereof is of the nature of Nitre, and hath the ſame vertues: and in this regard ſomewhat more, for that it is found to be more fattie and uncteous.

Chap. xxi.

Of wine-cellars.

NOw when wine is made and tunned up in manner aforeſaid, there is as great difference and diverſitie in the beſtowing of it in cellars. They of Piemont about the Alpes, doe put up their wines in woodden barrels, bound well with hoopes, for warmth: and moreover, if the winter be very cold, they make fires in their cellars or butteries, to keep them for being frozen. I will tell you a ſtrange wonder, yet true and to be verified, not by heareſay but plain eieſight. There were ſeene upon a time whole heapes and huge lumpes of wine congealed into ice, by occaſion that the hoopes of the hogſheads burſt that contained the wine: and this was held for a prodigious token. For indeed wine of it owne nature will not congeale and freeze, onely it will looſe the ſtrength, and become appalled in extremitie of cold. In warmer climates and more temperate, they fill their wines into great ſtands and ſteanes of earth, which they ſet into the ground, either over the head all whole, or els by halfe; deeper or ſhallower, according to the ſituation and temperature of the region. Likewiſe they give the wine open aire in ſome places: whereas in other
E they keepe it cloſe within houſe in tavernes and cellars. And thereto belong theſe and ſuch like rules. Firſt, that one ſide of the wine-cellar, or at leaſtwiſe the windowes, ought to ſtand open to the North, or to the Eaſt in any wiſe, where the Sunne riſeth at the time of the Æquinoctiall. *Item*, that there be no muckhils nor privies neare: no roots of trees, nor any thing of a ſtrong and ſtinking ſavor: for that wine is of this nature, to draw any ſmell very quickly into it: and above all, Fig-trees (as well the wild as the tame) be hurtfull to wine-cellars. *Item*, as touching the order of placing the wine veſſels, they ought to ſtand a pretie diſtance one from another: for feare of contagion, for that wine is alwaies moſt apt to catch infection very ſoone. Moreover, it mattereth much of what proportion and faſhion the pipes, tubs, and ſuch veſſels be made. Thoſe with great bellies and wide mouths, are not ſo good. Alſo they muſt bee nealed with pitch, preſently upon
F the riſing of the dog ſtarre: afterwards douſed and waſhed all over either in the ſea or els ſalt water, then to bee ſeaſoned and ſtrewed with vine aſhes or cley: and when they bee ſcoured, they ought to ſweeten them with a perfume of Myrrhe; which were good to be done alſo unto the very cellars oftentimes. Furthermore, if the wines be weake and ſmall, they had need to be kept in tubs and hogſheads, let downe within the ground: but the ſtrong and mightie wines may lie above

ground in the open aire. Provided alway, that wine veſſels bee never filled top full: but the void part that is left, and ſtandeth above the wine, would be throughly dight with thicke wine made of withered grapes, or ſodden wine to the halfe, and ſaffron mingled withall, yea, and old pitch, together with cuit. Thus alſo ought the lids and bungs of the veſſels to bee ordered, with an addition beſides of maſticke and pitch. In the deepe of Winter they muſt not be unſtopped and opened in any caſe, unleſſe the weather bee faire and cleare. Neither when the wind is Southerly, or the Moone in the full. This alſo is to be noted, that the flower or mantle which the wine caſteth up to the top, is good when it is white: if it be red, it is a very bad ſigne, unleſſe the wine it ſelfe bee of that colour. Moreover, if the veſſels bee hote, or the lids doe ſweat, it is no good ſigne. Note alſo, that the wine which ſoone beginneth to mantle and caſt up a floure incontinently, or to yeeld another ſmell than the owne, will not continue long good. As for the cuits, whether they be ſodden to the halfe or the thirds, they ought to be boiled & made when the skie is without a Moon, that is to ſay, in the chaunge, and upon no day els. Moreover, the decoction muſt be in leads, and not in coppers; with walnuts among to receive all the ſmoke, which otherwiſe might infect the cuit. In Campaine they let their beſt wines lie abroad in veſſels, even in the open aire, to take the Sunne, the Moone, raine, and wind, and all weathers that come: and this is thought to bee beſt for them.

Chap. xxii.

Of avoiding Drunkenneſſe.

IF a man marke and conſider well the courſe of our life, we are in no one thing more buſie and curious, nor take greater pains, than about wine: as if Nature had not given to man the liquor of water, which of all others is the moſt holeſome drinke, and wherwith all other creatures are well contented. But we thinking it not ſufficient to take wine our ſelves, give it alſo to our Horſes, Mules, and labouring beaſts, and force them againſt Nature to drinke it. Beſides, ſuch paines, ſo much labour, ſo great coſt and charges we are at, to have it; ſuch delight and pleaſure wee take in it; that many of us thinke, they are borne to nothing els, and can skill of no other contentment in this life: notwithſtanding, when all is done, it tranſporteth and carrieth away the right wit and mind of man, it cauſeth furie and rage, and induceth, nay, it caſteth headlong as many as are given thereto, into a thouſand vices & miſdemeanors. And yet forſooth, to the end that we might take the more cups, and poure it downe the throat more luſtily, we let it run through a ſtrainer, for to abate and gueld (as it were) the force thereof: yea, and other deviſes there be to whet our appetite thereto, and cauſe us to quaffe more freely. Nay, to draw on their drinke, men are not afraid to make poiſons, whiles ſome take hemlocke before they ſit down, becauſe they muſt drink perforce then, or elſe die for it: others, the pouder of the *pumiſh ſtone, & ſuch like ſtuffe, which I am abaſhed to rehearſe and teach thoſe that bee ignorant of ſuch leaudneſſe. And yet wee ſee theſe that bee the ſtouteſt and moſt redoubted drinkers, even thoſe that take themſelves moſt ſecured of daunger, to lie ſweating ſo long in the baines and brothel-houſes for to concoct their ſurfet of wine, that otherwhiles they are caried forth dead for their labour. Yee ſhall have ſome of them againe when they have been in the hot houſe, not to ſtay ſo long as they may recover their beds, no not ſo much as to put on their ſhirts: but preſently in the place, all naked as they are, puffing and labouring ſtill for wind, catch up great cans and huge tankards of wine (to ſhew what luſtie and valiant champions they bee) ſet them one after another to their mouth, poure the wine downe the throat without more adoe, that they might caſt it up againe, and ſo take more in the place; vomiting and revomiting twice or thrice together that which they have drunke, and ſtill make quarrell to the pot: as if they had beene borne into this world for no other end but to ſpill and marre good wine: or, as if there were no way els to ſpend & waſt the ſame, but through mans bodie. And to this purpoſe, were taken up at Rome theſe forraine exerciſes, of vaulting and dancing the Moriske; from hence came the tumbling of wraſtlers in the duſt and mire together; for this, they ſhew their broad breaſts, beare up their heads, and carie their neckes farre backe. In all which geſticulations, what doe they elſe but profeſſe that they ſeeke means to procure thirſt, and take occaſion to drinke? But come now to their pots that they uſe to quaffe and drinke out of: are there not graven in them faire pourtraits thinke you of adulteries? as if drunkenneſſe it ſelfe were not ſufficient to kindle the heat of luſt, to pricke the fleſh, and to teach them wantonneſſe. Thus is wine drunke out of libidinous cups: and more than that, he that can quaffe beſt and play the drun-

*Vide lib. 36. cap. 21.

A drunkard moſt, ſhall have the greateſt reward. But what ſhall we ſay to thoſe (would a man think it?) that hire one to eat alſo as much as hee can drinke, and upon that condition covenant to yeeld him the price for his wine drinking, and not otherwiſe. Yee ſhall have another that will enjoyne himſelfe to drinke every denier that hee hath woon at dice. Now when they are come to that once, and be throughly whitled, then ſhall ye have them caſt their wanton eyes upon mens wives; then fall they to court faire dames and ladies, and openly bewray their folly even before their jealous and ſterne husbands; then (I ſay) the ſecrets of the heart are opened & laid abroad. Some ye ſhall have in the mids of their cups, make their wills, even at the very board as they ſit: others againe caſt out bloudie and deadly ſpeeches at randon, and cannot hold but blurt out thoſe words which afterwards they eat againe with the ſwords point: for thus many a man by a
B laviſh tongue in his wine, hath come by his death and had his throat cut. And verily the world is now growne to this paſſe, That whatſoever a man ſaith in his cups, it is held for ſooth; as if Truth were the daughter of Wine. But ſay they eſcape theſe daungers: certes ſpeed they never ſo well, the beſt of them all never ſeeth the ſun-riſing, ſo drowſie and ſleepie they are in bed everie morning; neither live they to be old men, but die in the ſtrength of their youth. Hence commeth it, that ſome of them looke pale, with a paire of flaggie blabd cheekes; others have bleared and ſore eyes: and there be of them that ſhake ſo with their hands, that they cannot hold a full cup, but ſhed and poure it down the floore. Generally they all dreame fearfully (which is the very beginning of their hell in this life) or els have reſtleſſe nights: and finally, if they chaunce to ſleepe (for a due guerdon and reward of their drunkenneſſe) they are deluded with imaginary
C conceits of *Venus* delights, defiled with filthie and abominable pollutions: and thus both ſleeping and waking they ſinne with pleaſure. Well, what becomes of them the morrow after? they belch ſowre, their breath ſtinketh of the barrell, and telleth them what they did over night; otherwiſe they forget what either they did or ſaid, they remember no more, than if their memorie were utterly extinct and dead. And yet our jollie drunkards give out and ſay, That they alone enjoy this life, and rob other men of it. But who ſeeth not, that ordinarily they looſe not onely the yeſterday paſt, but the morrow to come? In the time of *Tiberius Claudius* the Emperour, about fortie years ſince, certain out-landiſh Phyſicians and Monte-banks, who would ſeem to ſet themſelves out by ſome ſtraunge novelties of their owne, and ſo get a name, brought up at Rome a new deviſe and order, to drinke faſting; and preſcribed folke to take a good heartie draught of wine before meat, and to lay that foundation of their dinner. Of all nations, the Parthians would have the glory for this goodly vertue of wine-bibbing: and among the Greekes, *Alcibiades* indeed deſerved the beſt game for this worthy feat. But here with us at Rome *Novellius Torquatus* a Millanois, wan the name from all Romans & Italians both. This Lombard had gone through all honourable degrees of dignitie in Rome; he had been Pretor, and attained to the place of a Proconſull. In all theſe offices of ſtate he woon no great name: but for drinking in the preſence of *Tiberius*, three gallons of wine at one draught and before he tooke his breath againe, he was dubbed knight by the ſurname of *Tricongius*, as one would ſay, *The three gallon knight: and the Emperour, ſterne, ſevere, and cruell otherwiſe though he was, now in his old age (for in his youthfull daies hee was given overmuch to *drinking of wine) would delight to behold this renowmed and worthie knight, with great wonder and admiration. For the like rare gift and commendable qualitie, men thinke verily that *C. Piſo* firſt riſe: and afterwards was advanced to the Provoſtſhip of the citie of Rome, by the ſaid *Tiberius*: and namely, for that in his court being now Emperor, he ſat two daies and two nights drinking continually, and never ſtirred foot from the bourd. And verily *Druſus Cæſar* (by report) in nothing more reſembled his father *Tiberius*, than in taking his drinke. But to return again to noble *Torquatus*, herein conſiſted his excellencie, That he did it according to art [for this you muſt take withall, there is an art of Drinking, grounded upon certaine rules & precepts.] *Torquatus* (I ſay) drank he never ſo much, was not known at any time to falter in his tongue, never eaſed himſelfe by vomiting, never let it go the other way under bourd: how late ſoever he ſat up at the wine overnight, he would be ſure to relieve the morning watch & ſentinell. He drunke moſt of any man at one entire draught before the pot went from his head; and for ſmaller draughts beſides, he went beyond all other in number; his wind he never tooke while the cup was at his mouth, but juſtly obſerved the rule of drinking with one breath; he was not known to ſpit for all this: and to conclude, he would not leave a drop behind in the cup, not ſo much as would daſh againſt the pavement, & make the leaſt ſound to be heard: a ſpeciall point & preciſe law

*not The thrice-gallant knight.

* Whereupon he was called *Biberius Mero*, for *Tiberius Nero*.

to

to prevent the deceit of thoſe that drinke for a wager. A ſingular glorie no doubt in him, and a rare felicitie. *Tergilla* challenged *M. Cicero* the younger, ſonne to that *M. Cicero* the famous Oratour, and reproched him to his face, that ordinarily he drunke two gallons at ones: and that one time above the reſt when he was drunke, he flung a pot at *M. Agrippa* his head. And truly this is one of the fruits and feats of drunkenneſſe. But blame not young *Cicero*, if in this point yet hee deſired to ſurmount him that ſlew his father, *M. Antonius* I meane; for he before that time ſtrained himſelfe, and ſtrove to win the beſt game in this feat, making profeſſion thereof, as may appeare by a booke that he compiled and ſet forth with this title, *Of his owne drunkenneſſe*: wherein he was not aſhamed to avow and juſtifie his exceſſe and enormities that way: and thereby approved (as I take it) under pretence and colour of his drunkenneſſe, all thoſe outrages of his, all thoſe miſeries and calamities that hee brought upon the whole world. This treatiſe he vomited and ſpued out a little before the battell of Actium, wherein he was defeated: whereby it may appeare very plainely, that as hee was drunken before with the bloud of citizens, ſo ſtill hee was the more bloud-thirſtie. For this is a propertie that neceſſarily followeth this vice, That the more a man drinketh, the more he may, and is alwaies drie. And herein ſpake to good purpoſe a certaine Embaſſadour of the Scythians, ſaying, That the Parthians the more they drunke, they thirſtier they were.

As touching the nations in the Weſt part of the world, they have their drinkes alſo by themſelves made of *corne ſteeped in water, whereof they will drinke to the utterance, and be drunke: and namely in Spaine and Fraunce, where the manner of making the ſame is all one, howſoever they have *divers names. And in Spain they have deviſed means that theſe drinks (Ale or Beere) will abide age, and continue ſtale. In Ægypt likewiſe they have invented ſuch kind of drinks made of corne: ſo that no part or corner of the world there is, but drunkenneſſe reigneth. And verily theſe liquors howſoever they bee named, they uſe to drinke entire as they bee, and made of the very ſtrength of Malt: never delaying the ſame with water, as we doe wines. But it may bee ſaid, That Nature hath endowed and enriched thoſe countries with abundance of corn, and therfore they may well doe it. Oh how induſtrious we are to maintaine our vices! There is a deviſe found, (would ever any man have thought it?) how water alſo ſhould make men drunke. Two liquours there be, moſt pleaſing and acceptable to mens bodies, Wine within, & Oile without. Both proceed from two ſpeciall trees, howbeit, of the twaine, Oile is neceſſarie, and Wine may be better ſpared. And verily, men have not been idle in the making of good Oile: howbeit, they have been more addicted and given to make Wines for drinke; as may appeare by this, that reckoning but the generall kinds thereof, a man may find 195 ſorts of wine: but if a man would ſubdivide and deſtribute thoſe heads into their braunches, hee ſhould meet almoſt with twice as many: but of Oiles there bee not ſo many kinds by farre. Whereof wee purpoſe to treat in the booke next following.

*i. Malt.

*Zythus and Curmi, Ale and Beere.

THE XV. BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

Chap. I.

The natures of Trees that beare Fruit.

THere were no Olive trees grew in Italie, but upon the coaſt ſide, and that within fortie miles of the ſea, about the 440 yeare after the foundation of the citie of Rome; if it bee true that *Theophraſtus* ſaith, who was one of the moſt famous and renowmed Authors among the Greekes. *Feneſtella* writeth moreover, and affirmeth, That during the reign of *Tarquinius Priſcus* (which was much about the 183 yeere from the foundation of the citie of Rome) there were no Olive trees at all to be found, either in Italie, Spaine, or Africk: whereas now at this day they are ſeene all Italie over, yea and bee come as farre as the regions beyond the Alpes, even into the mids and very heart of Fraunce and Spaine. Indeed, in the yeare after the foundation of Rome 505 (which was when *Appius Claudius*, the nephew of that great *Appius Claudius* ſurnamed The blind, and *L. Iunius* were Conſuls togither) a pound of the oyle was ſold for twelve aſſes: and not long after (namely, in the 680 yeere) *M. Seius* the ſonne of *Lucius* (one of the Ædiles-Curule for the time beeing) brought downe the market ſo well, that a man might have bought ten pound for one As; and at that price he ſerved the people of Rome thoughout all that yeere. Leſſe cauſe therefore a man hath to marveile hereat, who knoweth how not paſt 22 yeeres after that, (namely when *Cn. Pompeius* was the fourth time Conſull) Italy was able to furniſh other nations and provinces with oile of Olives. *Heſiodus* alſo (who was eſpecially addicted to the ſtudie of husbandrie, and of all things thought it moſt neceſſarie to be taught and publiſhed for the good of mankind) wrate thus much concerning the Olive, That never a man was knowne to that day for to have gathered the fruit of that Olive tree, which himſelfe had planted: ſo late of growth were thoſe trees in his time, and ſo ſlowly came they forward. But now adaies they come up of kernels and ſtones ſet in plots of ground for the purpoſe: and being tranſplanted againe, they beare Olives the ſecond yeare after. *Fabianus* ſaith, That Olives love not to grow either in the coldeſt or the hoteſt grounds.

Virgill hath ſet downe three kind of Olives, to wit, Orchitæ [*i.* the great round Olives:] Radij [*i.* the long Olives:] and thoſe which are called Pauſiæ. He ſaith moreover, That the Olive trees require no tending or dreſſing at all, and need neither the hooke to be pruned, nor the rake and harrow to be moulded, ne yet the ſpade to bee digged about. Doubtleſſe, the goodneſſe of the ſoile, and the temperature of the climat eſpecially, are very requiſite and much materiall alone, without farther helpe: howbeit they uſe to be cut and pruned, yea they love alſo to be ſcraped, poliſhed, and cleanſed betweene where the branches grow over-thick, even as well as vines, and at the ſame ſeaſon.

The time of gathering Olives enſueth preſently upon the vintage of grapes: but greater induſtrie and skill is required to the making and tempering of good oile, than about new wine: for ye ſhall have one & the ſelfeſame kind of Olive to yeeld a different juice, and divers oiles. Firſt and foremoſt, of the greene Olive and altogither unripe, there is drawne the Oile-olive; which hath of all other the beſt verdure, and in taſt excelleth the reſt: and of this oile, the firſt running that commeth from the preſſe, is moſt commended: and ſo by degrees better or worſe, as the

oile

oile is drawne before or after, out of the preſſe: or, according to a late invention, by treading them with mens feet in little paniers, and upon hardles made of ſmall and fine oſiers. This is a rule, The riper that the Olive is, the fatter will the oile bee, and more plentifull; but nothing ſo pleaſant in taſt. And therefore the beſt ſeaſon to gather Olives, both for goodneſſe and abundance of oile, is when they begin to ſhew blacke. And ſuch halfe-ripe Olives wee in Latine call Drupæ, & the Greekes Drypetæ. To conclude, it skilleth very much whether the berries ripe upon the tree, or mellow within their preſſe: alſo whether the tree bee watered, that is to ſay, the Olives hanging thereupon be drenched and refreſhed with ſprinckling water, or have no other moiſture than their owne, and that which they receive by dewes and raine from heaven.

Chap. ii.

Of oile.

OIle-Olive commeth to have a ranke and unpleaſant taſt if it be old kept and ſtale, contrarie to the nature of wine, which is the better for age. And the longeſt time that oile will continue good, is but one yeare. Wherein ſurely if a man would well conſider, hee may obſerve the great providence of Nature. For ſeeing that wines are made to ſerve for intemperance and drunkenneſſe, there is not that neceſſitie to drinke much thereof, and to ſpend them out of hand: and more than ſo, the daintie taſt that they have when they be ſtale, induceth men to lay them up and keepe them long. But contrariwiſe, ſhe would not have us make ſuch ſpare of oile: and therefore by reaſon of the generall uſe and need thereof, ſhe hath made it vulgar and common to all.

As touching this benefite and gift of Nature beſtowed upon mankind, Italie of all other nations in the world carieth the name for the goodneſſe thereof: but principally the territorie or countie of Venafrum, and namely, that quarter lying toward Licinia, which yeeldeth the oile called Licinianum: wherupon there be no Olives compatable to them of Licinia, both for to ſerve the perfumers, in regard of the pleaſant ſmell which that oile doth give, ſo appropriat unto their ointments; as alſo to furniſh the kitchin and the table (as they ſay that be fine-toothed, and have a delicate taſt:) which is the cauſe (I ſay) that this oile carieth the onely name. And yet theſe Olives of Licinia have this priviledge beſides, that birds love not to come near unto them. Next to theſe Licinian Olives, the queſtion is betweene them of Iſtria and Bætica, whether of them ſhould go away with the price for their goodneſſe? and hard it is to ſay, which is the better of the twaine. A third degree there is under thoſe two abovenamed, namely, of the Olives that come from all other provinces, ſetting aſide the fertile ſoile of that tract in Affricke, which yeeldeth ſo great increaſe of corne. For it ſhould ſeeme that Nature hath ſet it apart for graine onely, ſeeing it ſo fruitfull that way: and hath not ſo much envied it the benefite of wine and oile, which ſhee hath denied thoſe parts, as thought it ſufficient that they might glory, & have the name for their harveſts. As for other points belonging to Olives, men have erred and ben deceived very much: neither is there in any part concerning our life, to be found more confuſion, than is therein: as we will ſhew and declare hereafter.

Chap. iii.

The nature of the Olive berries: alſo, of young Olive plants.

THis fruit called the Olive, conſiſteth of a ſtone or kernill, of oile, a fleſhie ſubſtance, and the lees or dregs: now by theſe lees (called in Latine Amurca) I meane the bitter liquor of the grounds that the oile yeeldeth. It commeth of abundance of water: and therefore as in time of drought there is leaſt thereof, ſo in a rainie and waterie conſtitution, you ſhall have ſtore and plentie. As for the proper juice of the Olive, it is their oile: and the cheeſe is that which commeth of thoſe that are unripe, like as wee have ſhewed before, when wee treated of Omphacium, or the Olive verjuice. This oilie ſubſtance doth increaſe & augment within the Olive untill the riſing of the ſtar Arcturus, to wit, ſixteene daies before the Calends of October; after which time, their ſtones and carnous matter about them doe rather thrive. But marke, when there followeth a glut of raine and wet weather preſently upon a drie ſeaſon, the oile in them doth corrupt & turne all (well neare) into the trees abovеſaid, which may eaſily be perceived by the colour: for it cauſeth

ſeth the Olive berrie to looke blacke. And therfore when this blackneſſe beginneth to appeare, it is a ſign that they have ſomewhat (although very little) of the lees: but before that, they had none at all. And herein are men foulely deceived, taking this marke for the beginning of their ripeneſſe: which blacke hew indeed is a ſigne of their corruption, and betokeneth that then they are in the way to be ſtarke naught. They erre alſo in this, that they ſuppoſe an Olive the more growne it is in carnoſitie, to be the fuller of oile: whereas in very truth, all the good juice in them is converted then into the groſſe and corpulent ſubſtance thereof, and thereby alſo the ſtone and kernill come to bee big and maſſie: which is the cauſe, that they had need of watering at that time, moſt of all. Which being done by great paine and labour of man, or happening through raine and plentie of ſhewers; unleſſe there enſue a drie ſeaſon & faire weather to extenuate that groſſe ſubſtance into which the Olive had turned the foreſaid juice and humor, all the oile is conſumed and loſt. For it is heat and nothing els (as *Theophraſtus* ſaith) which engendreth oile: and therfore both about the preſſe at firſt, and alſo in the very garners where Olives be laid after, they uſe to keepe good fires, by that meanes to draw the more oile forth. A third default there is in oile, and that commeth of two much ſparing and niggardiſe: for ſome men there are, who being loth to be at coſt to plucke and gather Olives from the tree, wait ſtill and looke that they ſhould fall of themſelves. And ſuch folke as would ſeeme yet to keepe a meane herein, namely, to take ſome paines and be at a little coſt; beat and pell them downe with perches and poles: whereby they doe offer wrong to the poore trees, yea, and hinder themſelves not a little the yeare following, when they ſhall find how much it is out of their way, thus to breake their boughes and branches. Whereupon the law in old time provided well for this inconvenience, by an expreſſe inhibition to all gatherers of Olives, in theſe words, NO MAN SO HARDIE AS TO BREAKE, STRIKE, AND BEAT THE OLIVE TREE. But they that goe moſt warily and gently to worke, ſtand under the tree, and with ſome canes ſhake the boughs and branches therewith, or lightly ſmite them: but in no caſe let drive and lay at them either with full down-right or croſſe-blowes. And yet, as heedfull as they be in ſo doing, this good they get by ſtriking and knapping off the young ſhoots and ſprigs which ſhould beare the next year, that they have the trees carie fruit but once in two years for it. The like happeneth alſo, if a man ſtay till they fall of themſelves: for by ſticking on the tree beyond their due time, they rob the Olives to come after, of all their nutriment wherewith they ſhould be fed, and deteine the place likewiſe where they ſhould come forth and grow. An evident proofe hereof is this, That Olives unleſſe they be gathered before the ordinarie and yearely Weſterne winds doe blow, they gather heart againe upon the tree, and will not ſo eaſily fall as before. Men uſe therefore to gather the Pauſian Olives firſt after Autumne, which are fulleſt of carnoſitie, not ſo much by nature as by miſgovernment and diſorder; ſoone after, the round Orchitæ, which have plentie of oile; and then the Olives Radij: and theſe, for as much as they be moſt tender, & ſooneſt overcome with abundance of the lees (which we called before Amurca) are therby forced to fall. Howbeit, ſuch Olives as be thick skinned and hard; tough alſo & admitting no wet and raine (by which means they are the leaſt of all others) will abide on the tree untill March: and namely, the Licinian Olives, the Cominian, Contian, & Sergian, which the Sabins call Roiall: all which change not colour & look black before the foreſaid Weſterne wind bloweth, that is, about the ſixt day before the Ides of Februarie; for by that time folke think they begin to ripen. Now for as much as the beſt & moſt approved oile is made of them, it ſeemeth that reaſon alſo being conformable to this defect of theirs, juſtifieth & approveth the ſame in the end. And this is commonly received and held among them, that cold winters breed ſcarſitie and dearth: but full maturitie brings plentie, namely when they have leiſure to ripen upon the tree: howbeit this goodnes is not occaſioned by the time, but by the nature rather of thoſe kind of Olives, which bee long ere they turn into the foreſaid dregs Amurca. Men are likewiſe as much deceived in this, that when Olives be gathered, they keep them upon bourded floores in ſollars and garners, & will not preſſe them before they have ſweat: whereas, in truth, the longer they lie, the leſſe oile they yeeld, & the more dregs of lees. For by this meanes the ordinarie proportion they ſay is, to preſſe out of every Modius of Olives, not above ſixe pound of oile. But no man maketh any reckoning of the lees, how much it increaſeth in meaſure day by day, in one and the very ſame kind of Olives, the longer that they be kept ere they be preſſed. In one word, it is a common error ſetled every where, that men do think the abundance of oile is to be eſteemed according to the bignes of the Olives: conſidering that the plentie of oile conſiſteth not in the greatneſſe of the fruit: as may appear by thoſe which

of

of ſome are called Roiall, of others Majorinæ, and Phauliæ, which every man knoweth, are the biggeſt and faireſt Olives to ſee to, and yet otherwiſe have leaſt oile in them of any others. Likewiſe in Ægypt the Olives are moſt fleſhie & full of pulpe, howbeit, leaſt oileous. As for the countrie Decapolis of Syria, the Olives indeed be very ſmall there, & no bigger than Capers: yet commended they are for their carnoſitie. And for that cauſe, the Olives from the parts beyond ſea are preferred before the Italian, for goodneſſe of meat, and as better to be eaten; yet thoſe of Italie yeeld more oile. And even within Italie, the Picene and Sidicine Olives ſurpaſſe the reſt. For in truth, theſe are firſt confected and ſeaſoned with ſalt: or els (as all others) prepared and condite either with lees of oile, or wine-cuit. Some Olives there bee, which they ſuffer to ſwim alone as they be, in their own oile, without any helpe and addition of other things; and ſuch be called Colymbades. And the ſame they uſe otherwhiles to bruiſe and cleanſe from their ſtones, and then confect them with greene hearbs, which have ſome pleaſant & commendable taſt. Others there are, which being otherwiſe very greene and unripe, are preſently brought to maturitie, and made mellow, by lying infuſed and ſoking in hote ſcalding water. And a wonder it is to ſee, how Olives will drinke in a ſweet liquor, and how by that meanes they may be made toothſome, yea, and to carie the taſt of any thing that a man would have them. Among Olives there be alſo that are of colour purple, like to thoſe grapes which change colour when they begin to ripen. Moreover, beſides the abovenamed ſorts of Olives, there be ſome named Superbæ [*i.* prowd.] Alſo there are Olives to be found, which being dried by themſelves onely, are paſſing ſweet, yea, and more delicate than raiſins: marie theſe are very geaſon, and yet ſuch are in Affricke and about the citie Emerita in Portugall.

As touching the very oile it ſelfe, the way to preſerve it from being overfat and thicke, is with ſalt. If the barke of an Olive tree be ſlit and cut, it will receive the rellice and ſmell of any medicinable ſpice, and the oile thereof will ſeeme aromatized: otherwiſe pleaſant in taſt it is not, like as wine is: neither is there ſuch difference in ſo many kinds of Olives as there is in wine: for ſurely we cannot at the moſt obſerve above three degrees in the goodneſſe of oiles, namely, according to the firſt, ſecond, and third running out of the preſſe. Finally, the thinner that oile is, and the more ſubtile, the finer and daintier is the ſmell thereof: and yet the ſame ſent, in the very beſt of them all, continueth but a ſmall time.

Chap. iiii.

The nature of oile Olive.

THe propertie of Oile, is to warme the bodie, and to defend it againſt the injuries of cold: and yet a ſoveraigne thing it is to coole and mitigate the hote diſtemperature of the head. The Greekes, whom we may count the very fathers and foſters of all vices, have perverted the true and right uſe thereof, to ſerve for all exceſſe and ſuperfluitie: even as farre as to the common annointing of their wraſtlers with it, in their publicke place of exerciſe. Knowne it is for certaine, that the governours and wardens of thoſe places, have ſold the oile that hath been ſcraped from the bodies of the ſaid wraſtlers for 80 Seſterces at a time.

But the ſtately majeſtie of Rome contrariwiſe hath done ſo great honour to the Olive tree, that every yeare in Iulie, when the Ides come, they were wont to crowne their men of armes and gentlemen marching by their troups and ſquadrons in ſolemne wiſe, with chaplets of Olive; yea and the manner was of captaines likewiſe to enter ovant in petie triumphs into Rome, adorned with Olive coronets. The Athenians alſo honoured their conquerors with Olive guirlands. But generally the Greekes did ſet out their victors at the games of Olympia, with braunches of the wild-Olive.

Chap. v.

The manner how to order Olives.

NOw will I report the precepts and rules ſet downe by *Cato*, as touching Olives. His opinion is, that the greater long Olive Radius of Salentum, the big Orchites, the Pauſia, the Sergiana, Cominiana, and the Albicera, ſhould be planted in hote and fat grounds. Hee addeth moreover (as he was a man of ſingular dexteritie and prudent ſpirit) which of them in the neigh-

neighbour territories and places adjoyning, were taken for the beſt. As for the Licinian Olives, he ſaith, They would be planted in a weelie and cold hungrie ground: for if it be a fat ſoile and a hot, the oile will be corrupt and naught, and the very tree it ſelfe will in ſhort time be killed with overmuch fertilitie and bearing too great a burden. Moreover, they will put forth a red kind of moſſe, which eateth and conſumeth the tree. To conclude, his mind is, that Olive hort-yards ſhould be expoſed to the ſunne, yet ſo, as they regard the Weſt wind alſo in any caſe, for otherwiſe he commendeth them not.

Chap. vi.

How to keepe Olives, and the way to make oile of them.

Cato alloweth of no other means to keep and preſerve Olives (and ſpecially the great ones made like cullions, named thereupon Orchita, and the Pauſiæ) but either in brine and pickle when they are greene, or elſe among Lentiske braunches when they are bruiſed and broken. The beſt oile is made (ſaith he) of the greeneſt and ſowreſt Olives. Moreover, ſo ſoon as ever they be falne, they muſt be gathered from off the ground; and if they be fouled and berayed with the earth, they ought to be waſhed clean, and then laid to dry three daies at the moſt. Now if it fall out to be weather diſpoſed unto froſt, they ſhould be preſſed at foure daies end. He giveth order alſo, to beſtrew and ſprinkle them with ſalt: ſaying moreover, That if they be kept in boarded ſollars or garners, the oile will be both leſſe in quantitie, & worſe withall. So it will be alſo, if it be let lie long in the lees, or togither with the cake and grounds, when they be bruſed & beaten: for this is the very fleſhie and groſſe ſubſtance of the Olives, which cannot chuſe but breed filthy dregs. And therfore he ordaineth, that oftentimes in a day it ſhould be poured out of one veſſell into another, and ſo by ſetling clarified from the grounds; and then to put it up afterwards into pans and panchions of earth, or els into veſſels or kimnels of lead, for braſſe mettall will marre oile. All this ſhould be done within cloſe preſſes and rowmes, and thoſe kept ſhut, where no aire or wind may come in, that they might be as warme and hot as ſtouves. He forbiddeth alſo to cut any wood or fuell there, to maintain fire; for that the fire made of their ſtones & kernels, is moſt kindly of any other. To the end alſo that the grounds and lees ſhould be liquified and turne inro oile, even to the very laſt drop, the oile ſhould be let run out of thoſe veſſels or kimnels aforeſaid into a vat or ciſtern: for which purpoſe the veſſels are often to be cleanſed, and the oiſier paniers to be ſcoured with a ſpunge, that the oile might ſtand moſt pure and cleare. But afterward came up the deviſe to waſh Olives firſt in hot water, and then immediatly to put them whole as they are, into the preſſe; for by that means they ſquize forth lees and all: and then anon to bruſe and cruſh them in a mill, & ſo preſſe them in the end. Moreover, it is not thought good to preſſe the ſecond time above 100 Modij, which is the full proportion of one preſſure, & it is called Factus. That which after the mill commeth firſt, is named The floure of the oile, or the Mere-gout. Laſt of all, to preſſe 300 Modij, is thought to be foure mens worke ordinarily in one night and a day.

Chap. vii.

Of Oile artificiall.

IN *Cato* his time there was no artificiall Oiles, I meane, no other but that of the Olive; and therefore I ſuppoſe it was, that he made no mention thereof: but now adaies there bee many kinds. Firſt will we treat of thoſe that are made of trees, and principally before all the reſt, of the oile of the wild Olive: Thin it is, and much more bitter than that of the other gentle & true Olive, but good for medicines only.

Very like to it, is that which is made of Chamelæa, an herb or ſhrub growing in ſtonie places, to the heigth of a ſpan and no more, with leaves and berries reſembling thoſe of the wild Olive.

The next is that which commeth of Cici, or Ricinus, [*i.* Palma Chriſti] a plant which groweth plentifully in Ægypt, which ſome call Croto, others Trixis or wild Seſame; but long it hath not been there. In Spaine likewiſe this Ricinus is found of late to riſe ſodainly to the heigth of an Olive tree, bearing the ſtalke of Ferula or Fenell-geant, clad with leaves of the vine, and repleniſhed with ſeed reſembling the graines or kernels of ſmall and ſlender grapes, and of a pale colour withall: wee in Latine call it Ricinus, of the reſemblance that the ſeed hath to a ticke,

which is a vermin that annoieth ſheepe. For to gather an oile thereof, the manner is to ſeeth the ſeeds in water; the oile will ſwim aloft, and ſo it is ſcummed off. But in Ægypt (where there is abundance thereof) they never uſe any fire or water about it; only they corne it well with ſalt, and then preſſe out the oile, which is very fulſome and naught to be eaten, good only for lamps.

The oile of Almonds, which ſome call Metopium, is made of the bitter Almonds dried, ſtamped, and reduced into a maſſe or lumpe, which being ſprinkled and ſoked with water, and then beaten againe in a mortar, is put into a preſſe or mill, and the oile drawne thereout.

There is an oile made alſo of the Bay, togither with the oile of ripe olives readie to drop from the tree. Some take the Bay berries onely, & thereout preſſe oile de-Bayes: others uſe the leaves and nothing els: and there be againe, who with the leaves take alſo the rind of the Bay berries; yea and put thereto Storax Calamita, and other ſweet odors. Now for this purpoſe, the Lawrell with broad leaves, growing wild, and bearing blacke berries, is the beſt.

Like unto this oile, is that which they make of the blacke Myrtle; and the broad leafed kind thereof is the better: the berries of it ought to lie infuſed firſt in hot water, and afterwards to be boiled. Some ſeeth the tendereſt leaves that it hath in Oile-olive, and then preſſe them forth. Others put the leaves firſt in the oile, and then let them ſtand confected in the ſunne, and there take their ripening.

After the ſame manner is the oile made of the garden Myrtle; but that of the wild which hath the ſmaller ſeed is the better: and this Myrtle ſome call Oxymyrſine, others Chamæmyrſine; and ſome againe name it for the ſmalneſſe, * Acaron, for ſhort it is and full of little braunches.

* *i.* Indiviſible, or, ſo ſmal that it cannot be cut.

Moreover, there be oiles made of the Citron and Cypreſſe trees: likewiſe of wallnuts which they call Caryinon: alſo of the fruit of the Cedar, named Cedrelæon.

Semblably of the graine called Gnidium, to wit, the ſeed of Chamelæa and Thymelæa, well cleanſed and ſtamped. In like manner of the Lentiske. As for the oile Cyprinum, how it ſhould be made of the Ægyptian nut and of Ben for to ſerve perfumers, hath been ſhewed before. The Indians (by report) doe make of Cheſtnuts, of Seſame ſeed, & Rice. The people Ichthyophagi as they live by eating fiſh only, ſo they make oile of fiſhes. And in caſe of neceſſitie, otherwhiles men uſe to draw an oile out of the berries of a Plane tree alſo, beeing ſteeped in water and ſalt, which ſerveth for lamp oile. Yea and there is an oile made of the wild vine Oenanthe, as we have ſaid alreadie in the treatiſe of Ointments.

As touching the oile which the Greekes call Gleucinum, it is made with new wine and oile-olive, boiled at a ſoft fire. Others there be that let the wine conſume all into oile, and without any fire at all, doe compaſſe the veſſell wherein this compoſition is made, with the cake and the refuſe of grapes when they be preſſed, and cover it all over for the ſpace of 22 dayes, ſo as twice a day they be all mixed throughly togither. Some there be who put thereto not only Majoram, but alſo the moſt precious and exquiſite odours that they can meet withall: and our common fencing-halls and places of publicke exerciſes be perfumed with theſe ſweet oiles, and doe ſmell of them; but ſuch they be as are the cheapeſt of all other.

Over and beſides, there is made an oile of Aſpalathus, ſweet Calamus, Baulme, Iris or flour-de-lis, Cardumome or graines of Paradiſe, Melilot, French Nard, Panace, Marjoram, Elecampane, and the root of Cinamon, taking all theſe and letting them lie infuſed in oile, and ſo preſſing out the juice thereof. So is oile Roſat made of Roſes: the oile of Squinanth of the ſweet ruſh, which is moſt like to the oile Roſat. Likewiſe of Henbane, Lupines, and the Daffadill. The Ægyptians get great ſtore of oile out of Radiſh ſeed, or the graſſe called Gramen (which is Dent-de-chien or Quich-graſſe) and this oile they call Chortinon. After the ſame manner the Seſame-ſeed doth yeeld an oile; as alſo the Nettle, which in Greeke they call Cnecinon, or rather Cnidinum. As for the oile of Lilies, it is made in ſome places, where they feare not to let it ſtand abroad in the aire infuſed to take both ſunne and moon-ſhine, yea and froſtie weather.

They that inhabit between Cappadocia and Galatia, do compound a certaine oile of hearbs growing among them, which is a ſoveraigne remedie for ſinewes either wounded or otherwiſe grieved, and they call it Selgiticum: it is much in effect like to that oile which is made in Italie of Gums, by the people Eguini.

Now for the oile of Pitch, which they call Picinum, it is made of the vapours and ſmoke that ariſe from Pitch whiles it boileth, and received in fleeces of wooll ſpread over the pots mouth wherein

A wherein the ſaid Pitch is ſodden: which fleeces are afterwards well wrung, and the oile is preſſed out therof. The beſt oile is that which commeth from the Brutian or Calabrian Pitch: the ſame is moſt fat of all others, and fulleſt of Roſin. The colour of the oile is reddiſh.

Vpon the coaſts and maritime parts of Syria, there is an oile engendreth of it ſelfe, which the Greekes call Elæomeli: a fattie and greaſie ſubſtance it is, thicker than honey, and thinner than Roſin, of a ſweet taſt, iſſuing out of trees; and is onely medicinable and good in Phyſicke.

As touching old oile, it ſerveth in right good ſtead for ſundrie ſorts of maladies. It is thought alſo very ſingular for to preſerve Ivorie from putrefaction: for this is certein, that the image of *Saturne* at Rome is full of oile-olive all within.

B

Chap. viii.

Of the lees or dregs of Oile-olive, called Amurca.

C *Ato* hath highly commended above all, the lees of Oile-olive: for he would have the barrels, hogſheads, and other veſſels which hold oile, to bee therewith beſmeared, that they ſhould not drink up the oile. He deviſed alſo, that the threſhing floors ſhould be wrought and tempered with oile lees, that they might not chawn and gape, nor no Ants breed within the chinkes and cranies thereof. Moreover, he thinketh it very good that the mortar, plaſtre, and parget uſed about the walls of corne-barnes, as alſo their floores, ſhould be well ſprinckled and tempered with the ſaid lees: yea and the preſſes and wardrobes where apparell is kept, ought to
C be rubbed therewith to keepe out mothes, wormes, ſpiders, and ſuch vermine that doe hurt to clothes. He affirmeth beſides, that it is good againſt certaine diſeaſes of foure-footed beaſts, as alſo to preſerve trees, yea and excellent for inward ulcers of a mans bodie, but eſpecially thoſe of the mouth. Being ſodden, it is ſingular good (as he ſaith) for to annoint and make gentle and ſupple all bridle reines, leather thongs, ſhoes, and axeltrees of carts and wagons: likewiſe to keepe all veſſels of braſſe from ruſt, and alſo to give them a bright and pleaſant colour: moreover, all the wooden implements of an houſe generally throughout, and veſſels made of earth and clay, wherein one would keepe drie figges in their verdure, would bee annointed therewith:
D or if one were deſirous to preſerve the Myrtle, leaves, fruit, and all, upon the braunches, or any ſuch thing, there is nothing better than the ſaid Amurca. Laſt of all, he ſaith, that what wood ſoever for fewell is dipped in theſe lees, it will burne cleare without any ſmoke.

M. Varro affirmeth, that if a Goat chaunce to licke with his tongue, or to brouſe an Olive when it buddeth the firſt ſpring, the ſame tree will ſurely be barrain and lie in great daunger to miſcarrie and die. Thus much of the Olive tree, and of the oile of Olives.

Chap. ix.

All kinds of Fruit good to eat, and their nature.

AS for all other fruits of trees, they are hardly to be numbred and reckoned by their forme and figure; much leſſe by their ſundrie taſts and divers juices that they yeeld, ſo intermin-
E gled they are togither by varietie of graffing one into another.

Chap. x.

Of Pine-nuts or Pine-apples, foure ſorts.

THe Pine-nuts (which are the biggeſt of that kind and hanging higheſt upon the tree) doe contain and nouriſh ſlender kernels encloſed within certain hollow beds full of holes, and beſides clothed and clad with another coat or huske of a dark murrey colour: wherein may be ſeene the wonderfull care and providence of Nature, to beſtow the ſeeds ſo ſoft. A ſecond kind there be of theſe nuts called Terentines, having a ſhell or huske very brittle and eaſie to be
F cruſhed betweene ones fingers; and as ſoone are they pecked through with birds bills, who after that manner filch and ſteale them from off the tree. A third ſort yet there is of them, which come of the gentle Pitch trees, having their kernels couched within a thin huske or skin more like than a ſhell, and the ſame ſo ſoft, that it may bee chewed and eaten togither with the kernell. Now there is a fourth fruit growing of the wild Pine, and called thoſe Nuts are of the Grecians, Pity-

dia; and theſe be ſingular good againſt the cough. The Taurines in Calabria, have a device to confect Pine-nut kernels, by ſeething them in honey; and being thus condite, they call them Aquiceli. To conclude, at the ſolemne and feſtivall games holden at Iſthmus, they who win the beſt prize, are woont to be crowned with a chaplet of the Pine.

Chap. xi.

☞ *Of the Quince.*

NExt to Pine apples, for big and large, are the Quinces, which we call Cotonea, the Greeks Cydonea, becauſe they were firſt brought out of Candie. So heavie and maſſie they be, that they bend the boughs to the ground as they hang upon the tree, and will not ſuffer their mother to grow.

Many kinds there be of Quinces, to wit, Chryſomela, of a colour inclining to gold, & divided by certain cut lines. Secondly, there be the Quinces of our owne country, and ſo called: theſe be whiter, & of an excellent ſmell. They alſo that come out of the realm of Naples, be highly eſteemed. Now there be a ſmaller ſort of the ſame kind called Struthea [*i.* the Peare-quince] & thoſe doe caſt a more odoriferous ſmell: late they be ere they come to ripeneſſe or perfection; whereas contrariwiſe the greene Quinces called Muſtea, be as haſtie and ſoone melow. Now if a man doe graffe the great Quinces upon the Struthea, the tree will bring foorth a kind of Quinces by themſelves called Mulviana; and theſe are the Quinces alone of all other that may be eaten raw. In ſumme, all the ſort of theſe are come now adaies to be entertained within the waiting or preſence chambers of our great perſonages, where men give attendance to ſalute them as they come forth every morning; and in bed-chambeis alſo they are to garniſh the images ſtanding about the beds head and ſides.

There are beſides ſmall wild Quinces, next to the Peare-quince Struthea, for pleaſant and odoriferous ſmell; and they grow commonly in hedge-rowes.

Moreover, as well Peaches as Pomegranats, notwithſtanding they be of a divers kind, yet we call Mala [*i.* Apples.] As for the Pomegranats, we have ſpoken of nine ſorts of them in our treatiſe of their trees, and others in Affricke: and theſe are full of certaine graines or kernels lying encloſed under their rind; whereas Peaches have in ſtead thereof, a groſſe ſtone or woodie ſubſtance within the carnous pulpe of the fruit. To conclude, there be certaine Peares weighing a pound, in regard of which poiſe and bigneſſe that they beare, called they are Libralia.

Chap. xii.

☞ *Of the Peach, and foure kinds thereof.*

OF all Peaches, the principall be thoſe which are named Duracina, for the ſolide ſubſtance of the meat within them. As for the French and Aſiaticke Peaches, they beare the name of the regions and nations from whence they come. This fruit ordinarily waxeth ripe after the fall of the leafe, or Autumne: but the Abricocts are readie to be eaten in Summer. Theſe have not been knowne full thirtie yeares, and at their firſt comming up, were ſold for Romane deniers apeece: whereof there be two ſorts; Supernatia, which we have from the high countries, and namely the Sabines; and Popularia, which grow common every where. Theſe fruits bee harmleſſe, and much deſired of ſicke folke: and for that they are in ſuch requeſt, there would be given otherwhiles thirtie Seſterces for one of them; which is a price as high as of any other fruit whatſoever: whereat we may marvell the rather, for that there is not any ſooner gone, and laſteth leſſe while than they: for being once gathered from the tree, they will not be kept above two daies at the moſt, and therefore muſt of neceſſitie be ſold and ſpent out of hand.

Chap. xiii.

☞ *Of the Plum-tree, eleven kinds of them.*

TO come now to Plums, there is a world of them: ſome of ſundrie colours, others blacke, and ſome againe white. There be that are called Hordearia, becauſe they be ripe in barley-harveſt: and ſome there be of the ſame colour, yet later ere they ripen, and bigger beſides; and

A and for that they be of ſmall reckoning, named they are Aſinina [*i.* *Aſſe-plums.] Ye ſhall have of them that be black, howbeit the yellow wheat-plum like virgin wax, and the purple, are better eſteemed. Moreover, there are a kind of Abricots come from a forraine nation, and they be called thereupon Armeniaca, which alone for their ſmell alſo, are commendable. But there is a peculiar braverie and a ſhameleſſe, which thoſe Plums have by themſelves that are graffed in Nut-tree ſtocks; they retaine the face and forme ſtill of the mother graffe, but they get the taſt of the ſtocke wherein they are ſet, as it were by way of adoption: of them both they carrie the name, and are called Nut-plums. Now, as well theſe, as Peaches, yellow wheat-plums, and the wild Bullaiſe, may be kept and preſerved as grapes in Autumne, within certaine barrels or earthen veſſels, and ſo they will continue good till new come. As for all other Plums, as they be ſoon ripe; B ſo they are as ſoone gone.

* As our hoſt plums.

It is not long ſince, that in the realme of Granado and Andaluſia, they began to graffe plums upon apple-tree ſtocks, and thoſe brought forth Plums named Apple-plums: as alſo others called Almond-plums, graffed upon Almond ſtocks; theſe have within their ſtone a kernell like an Almond: and verily there is not a fruit againe wherein is ſeene a wittier deviſe to conjoyne and repreſent in one and the ſame ſubject, two divers ſorts.

As for Damaſcene-plums (taking name of Damaſco in Syria) wee have ſufficiently ſpoken thereof in our treatiſe of ſtraunge trees: and yet long ſince they have been knowne to grow in Italy: which although they have a large ſtone and little carnoſitie about them, yet they never wither into wrinkles and rivels when they be drie, for that they want the full ſtrength of the kind C ſunne which they had in Syria.

We ſhould do well to write togither with them, of the fruit Sebeſten, which alſo come from the ſame Syria, albeit now of late they begin to grow at Rome, beeing graffed upon Sorvices. As touching Peaches in generall, the very name in Latine, whereby they are called Perſica, doth evidently ſhew that they were brought out of Perſis firſt; and that it is a fruit not ordinarie either in Greece or Natolia, but a meere ſtraunger there. Contrariwiſe wild plums (as it is well known) grow every where. I marvell therefore ſo much the more, that *Cato* made no mention thereof, conſidering that of purpoſe he ſhewed the manner, how to preſerve and keepe divers wild fruits, untill new came: for long it was firſt ere Peach trees came into theſe parts, and much adoe there was before they could be brought for to proſper with us, ſeeing that in the Iland Rhodes (which D was their place of habitation next to Ægypt) they beare not at all, but are altogither barraine. And whereas it is ſaid, That Peaches be venimous in Perſia, and do cauſe great torments in them who doe eat therof; as alſo that the KK. of Perſia in old time cauſed them to be tranſported over into Ægypt by way of revenge to plague that country; and notwithſtanding their poiſonous nature, yet through the goodnes of that ſoile they became good and holeſome: all this is nothing but a meere fable and a lowd lie. True it is indeed, that the beſt writers who have been painfull above others to ſearch out the truth, have reported ſo much concerning the tree Perſea; which is far different from the Peach tree Perſica, & beareth fruit like unto Sebeſten, of colour red, and willingly would not grow in any countrey without the Eaſt parts. And yet the wiſer and more learned Clarkes do hold, That it was not the tree Perſea which was brought out of Perſis into Æ-E gypt, for to annoy and plague the countrey, but that it was planted firſt by king *Perſeus* at Memphis. Whereupon it came, that *Alexander* the Great ordained, That all victors who had woon the prize at any game there, ſhould be crowned with a chaplet of that tree, to honour the memoriall of his great grandſires father. But how ever it be, certain it is that this tree continueth green all the yeare long, and beareth evermore fruit one under another, new and old togither. And to returne againe to our Plum-trees, evident it is that in *Catoes* time they were not knowne in Italie, but all the Plum-trees which we now have, are come ſince he died.

Chap. xiiii.

Of nine and twentie kinds of Fruits, contained under the names of Apples.

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OF Apples (that is to ſay, of fruits that have tender skins to be pared off) there be many ſorts. For as touching Pome-citrons, together with their tree, we have alreadie written. The Greekes call them Medica, according to the name of the countrey from whence they firſt came in old time. As for Injubes, as alſo the fruit Tuberes, they be likewiſe ſtraungers as

well as the reſt: and long it is not ſince they arrived firſt in Italie; the one ſort out of Affricke, the other (namely Injubes) out of Syria. And *Sextus Papinius* (whome my ſelfe in my time ſaw Conſull of Rome) was the firſt man that brought them both into theſe parts; namely, in the latter end of *Auguſtus Cæſar* the Emperour, and planted them about the rampiers of his camp for to beautifie the ſame: howbeit (to ſay a truth) their fruit reſembled rather berries than apples; yet they make a goodly ſhew upon the rampiers: and no marveile, ſince that now adaies whole groves of trees begin to over-top and ſurmount the houſes of privat perſons.

Concerning the fruit Tuberes, there be two ſorts thereof, to wit, the white, and the reddiſh, called alſo Sericum, of the colour of ſilke.

The apples named Lanata, are held in manner for ſtrangers in Italie, and are known to grow but in one place thereof, and namely within the territorie of Verona. Covered they be all over with a kind of down or fine cotton, which albeit both Quince and Peach be clad and overgrown with in great plentie, yet theſe alone carie the name thereof: for otherwiſe no ſpeciall propertie are they knowne by, to commend them.

A number of apples there are beſides that have immortalized their firſt founders and inventors, who brought them into name, & cauſed them to be known abroad in the world; as if therin they had performed ſome worthy deed beneficiall unto all mankind. In which regard, why ſhould I thinke much to rehearſe and reckon them up particularly by name? for if I be not much deceived, thereby will appeare the ſingular wit that ſome men emploied in graffing trees; and how there is not ſo ſmall a matter, ſo it be well & cunningly done, but it is able to get honor to the firſt author, yea and to eternize his name for ever. From hence it commeth, that our beſt apples take their denominations, of *Matius*, *Ceſtius*, *Manlius*, and *Claudius*. As for the Quince-apples (which come of a Quince graffed upon an apple ſtocke) they are called Appiana, of one *Appius* who was of the *Claudian* houſe, and firſt deviſed and practiſed that feat. Theſe apples carrie the ſmell with them of Quinces: they beare in quantitie the bigneſſe of the Claudian apples, and are of colour red. Now leaſt any man ſhould thinke, that this fruit came into credit by reaſon onely of partiall favour, for that the firſt inventor was a man deſcended from ſo auncient and noble a familie, let him but thinke of the apples Sceptiana, which are in as great requeſt as they, for their paſſing roundneſſe; and they beare the name of one *Sceptius* their firſt inventor, who was no better than the ſonne of a ſlave lately enfranchiſed. *Cato* maketh mention of apples called Quiriana, as alſo of Scantiana, which he ſaith the manner is to put up in veſſels, and ſo to keepe them. But of all others, the laſt that were adopted and tooke name of their patrons and inventors, be Petiſia: litle though they be, yet are they paſſing ſweet and pleaſant to be eaten.

Others apples there are that have ennobled the countries from whence they came, and caried their names, to wit, Camerina and Græcula. All the reſt tooke name, either upon ſome occaſion or propertie that they have: to wit, of brotherhood, as the twin-apples Gemella, which hang one to another by couples, and never are found ſingle, but alwaies grow double: of their colour, as the Serica, which for their freſh hew be ſo called: of kinred and affinitie, as the Melapia, for their reſemblance and participation of apples and Peares togither; as a man would ſay, Peare-apples, or Pom-poires: of their haſtie ripeneſſe, as the Muſtea, [*i.* haſtie-apples;] which now of their ſweet taſt of hony, are called Melimela, [*i.* hony-apples:] alſo of their exquiſite roundneſſe like a ball, as the Orbiculata, [*i.* the round-apples.] That theſe apples came firſt from their native countrey Epirus, appeareth by the Greeks who call them Epirotica. Againe, ſome there be that take their denomination of their forme, reſembling womens paps or breaſts, as namely, Orthomaſtica, [*i.* the Breſt-apples.] Others, for that their condition is to have no pepins or ſeed within them, be called of the Belgians, Spadoma, as one would ſay, Guelded-apples. As for the Melofolia, [*i.* the Leaſe-apples] they be ſo called, becauſe they have one leafe and otherwhile twaine breaking foorth of their ſide in the very mids. The ragged apples Pannucea take this name, for that of all others they ſooneſt be riveld. The Puffes named Pulmonea, are hoven fooliſhly, and ſwell I cannot tell how, with little or nothing in them. Some in colour reſemble bloud, they are ſo red, becauſe at firſt they were graffed upon a mulberry. But all apples ordinarily are red on that ſide that regardeth the ſunne.

As for Wildings and Crabs, little they be all the ſort of them, in compariſon: their taſt is well enough liked, and they carie with them a quicke and ſharp ſmell: howbeit this gift they have for their harſh fourneſſe, that they have many a foule word and ſhrewd curſe given them, and that they

A they are able to dull the edge of any knife that ſhall cut them. To conclude, the Dacian Apples are of all others in manner leaſt accepted, notwithſtanding they be firſt mellow, and would bee gathered betimes.

Chap. xv.

Of Peares. And of the varietie of graffing.

VPon the ſame cauſe there be Peares alſo reproched with the name of Pride, and are called the Proud-peares: little they are, but quickly ripe, and as ſoone gone. Of all others the Cruſtumine peares be moſt delicat and pleaſant in taſt. Next to them in requeſt are the Falerne peares, ſo called for their great abundance of liquor, as it were wine, whereof they are full. And theſe are named likewiſe the milke-peares: but ſuch of them as are of colour blacke, be called the Syrian peares. As for other peares, they have ſundrie names according to the countries wherein they grow. Howbeit theſe peares following, retaine their name ſtill in all places, and repreſent alwaies the memoriall of thoſe that firſt planted or graffed them, to wit, Decimiana of one *Decimus*, a knowne citizen of Rome: of which is alſo a baſtard kind which they call Pſeudodecimiana. Likewiſe, the Dolobellian peare, of one *Dolabella*: and thoſe are of all other the longeſt tailed. As touching the Pompeian peares, which be alſo called the Pap or Teat-peares, the Licerian, the Severian, and of their race the Tyrannian, they differ one from another in the length of their ſteale. The red Favonian peares be ſomewhat greater than the abovenamed Proud-peares. As for the Laterian and Anitian, which be not gathered nor ripe untill Autumne be paſt, they
C have a pretie tart and ſouriſh taſt, but natheleſſe pleaſant ynough. The Tyberian peares beare the name of *Tiberius* the Emperour, for that of all others he loved that fruit beſt: they might goe for Licerians well ynough, ſo like they be unto them, ſave onely that they grow big, and are more deepely coloured with the Sunne.

Moreover, there be peares which are known by no other name than of the countries where they grow, namely, thoſe of Ameria which are more lateward than any other: the Picentine, Numantine, Alexandrine, Numidian, Grecian, and among them the Tarentine. Alſo the Signine pears, which many call Teſtacea, of the colour of earthen pots which they reſemble; like as others be named Onychinum, for that they repreſent the Onyx ſtone, or a mans naile; as alſo thoſe which be called Purple-peares.

Furthermore, peares take their name of the odour which they yeeld: thus there be Myrapia, to wit, Aromaticall-peares, Laurell, and Nard-peares. Of the time alſo when they be ripe, as the Barley-peares: of the forme of their neck, as the Bottle-peares called Ampullacea: of their thick skin, as the Coriolana. As for the Gourd-peares, they are by nature of a bruiſh and ſavage kind; ſo harſh, ſo ſoure and eager a liquor they doe yeeld.

Many ſorts of peares there are, whereof we can give no certaine reaſon for their denomination, namely, the Barbarian and Venerian peares, which alſo be called Coloured: likewiſe, the roiall peares, which hang or rather ſticke flat to the tree, ſo ſhort a ſteele they have. The Patritian alſo and Voconian peares, which are both greene and long. Moreover, *Virgil* hath ſpoken of the Volemian peares or wardens, which he had from *Cato*, who alſo nameth the Sementium or the haſtie and ſoone ripe peares. So as in this point verily the world is growne alreadie to the higheſt pitch, inſomuch, as there is not a fruit, but men have made triall and many experiments, for even in *Virgils* daies the deviſe of graffing ſtrange fruits, was very riſe: conſidering that he ſpeaketh of the Arbute tree graffed upon Nut-trees, the Plane upon Apple trees, and the Elme upon Cherie ſtockes. In ſuch ſort, as I ſee not how men can deviſe to proceed farther. And certes for this long time, there hath not been a new kind of Apple or other fruit heard of.

And yet as induſtrious as men have been that way, they are not permitted to graffe all manner of trees indifferently one in another, no more than it is lawfull to graffe upon buſhes and thornes: ſeeing that it is not ſo eaſie a matter to appeaſe lightnings: for looke how many ſorts of trees are thus engraffed contrarie to nature, ſo many kinds of lightnings and thunderbolts by report, are flaſhed and ſhot at once.

Peares naturally are more ſharpe-pointed at one end than Apples. And among them, the Greeke peares, the Gourd and Lawrell peares are laſt of all others ripe: for they hang upon the tree untill Winter, and they mellow with very froſt: like as the Amerine and Scantiane apples.

Furthermore, peares are kept and preſerved as grapes, and after ſo many waies: but none of them

them are put in barrels as plums be. Finally, Peares and Apples both, have the properties of wine; and in like sort Physicians be warie how they give them to their patients. Howbeit, when they be sodden in wine and water, they serve in stead of a broth or grewell: and so doe no fruit else but Pome and Peare-Quinces.

Chap. XVI.

The manner how to preserve Apples.

THe generall rules to keepe and preserve Apples, are these. *Imprimis*, That the solars be well planked and boorded in a cold and drie place; provided alwaies, that the windowes to the North doe stand open, especially every faire day. *Item*, to keepe the windows into the South shut, against the winds out of that corner: and yet the North winds also where they blow, do cause Apples to shrinke and rivell ilfavouredly. *Item*, That Apples bee gathered after the Æquinox in the Autumne: and neither before the full of the Moone, nor the first houre of the day. Moreover, that all the Apples which fell, be severed from the other by themselves, and laid apart: also that they be bedded upon straw, mats, or chaffe under them: that they be so couched, as that they touch not one another, but have spaces betweene to receive equall aire for to be vented. To conclude, this is well knowne, that the Amerine Apples do last and keepe good long, wheras the honie Apples will abide no time.

Chap. XVII.

How to keepe Quinces, Pome-granates, Peares, Sorvises, and Grapes.

FOr the good keeping and preserving of Quinces, there must be no aire let into them where they are enclosed: or els they ought to be confected in sodden honey, or boiled therein.

Pomgranates should be plunged into sea-water boiling, and so hardened therein: and after that they be dried in the Sunne three daies, (so as they be not left abroad in the night to take dew) they would be hanged up in a solar, and when a man list to use them, then they must be well washed in fresh water. *M. Varro* setteth downe the manner to keepe them within great earthen vessels, in sand. And if they be not ripe, he would have the earthen pots bottomes broken off, and so the Pomgranates to be put in, and covered all over with mould: but the mouth thereof must be well stopped for letting any aire in; provided alwaies, that the steele and the braunch whereto the fruit groweth, be pitched. For so (quoth he) they will not give over to grow still, yea, & prove bigger than if they had remained upon the tree. As for other Pomgranates [*i.* that are ripe] they may be wrapped and lapped one by one in fig-leaves, such as are not fallen, but plucked from off the tree greene, and then to bee put into twigge paniers of oisiers, or els daubed over with potters clay.

He that would keepe Peares long, must put them in earthen vessels turned with the bottomes upward, well varnished or annealed within, covered also with saw dust or fine shavings, and so enterred. As for the Tarentine Peares, they abide longest on the tree ere they be gathered. The Anitian Peares be well preserved in cuit-wine.

As for Sorvisses, they are kept also in trenches within the ground, but the cover of the vessell whereinto they are put, ought to be well plastered all over, and so to stand two foot covered with earth: also they may be set in a place exposed open to the Sunne, with the bottome of the vessels upward: yea, and within great barrels they may be hung up with their braunches and all, after the manner of grape-clusters.

Some of our moderne writers handle this argument more deepely than others, and fetch the matter farre off, giving out rules in this manner, saying, That for to have Apples or Grapes *de garde*, that is to say, fit to be preserved, and to last long; the trees that beare the one and the other, ought to be pruned and cut betimes, in the waine of the Moone, in faire weather, and when the winds blow drie. Likewise they affirme, That fruits to be preserved, would be chosen from drie grounds: gathered before they be full ripe: and this would be looked unto in any hand, that the Moone at the gathering time, be under the earth, and not appearing in our hemisphære. And more particularly, for Grape bunches they would be gathered with a foot or heele from the old hard wood, and the Grapes that are corrupt and rotten among the rest, be clipped off with a

paire

paire of ſheeres,or plucked out with pincers: then to be hung up within a great new earthen veſſell well pitched; with the head or lid thereof throughly ſtopped and plaſtered up cloſe, to exclude all aire. After which manner, they ſay Sorviſſes and Peares may be kept, but ſo,as in any caſe the twigs and ſteeles whereby they hang, be well beſmeared with pitch. Moreover, order would be given,that the barrels or veſſels wherein they are kept,be far ynough from water.Some againe there be who keepe Grapes together with their braunch,after the ſame manner in plaſter: but ſo, as both ends of the ſaid braunch ſticke in the head of the ſea-Onion Squilla: and others let Grape-cluſters hang within hogſheads and pipes having wine in them: but ſo, as the Grapes touch not the wine in any caſe. There be alſo that put Apples and ſuch fruits in ſhallow pans or pancheons of earth,and let them ſwim and flote aloft upon the wine within their veſſels: for beſides that this is a way to preſerve them, the wine alſo (as they thinke) will thereby get a pleaſant and odoriferous taſt.Others yee have beſides,that chuſe rather to preſerve all theſe fruits, as well Apples,Peares, &c.as Grapes, covered in Millet ſeed. Howbeit, the moſt part dig a trench or ditch two foot deep in the ground,they floore it with ſand in the bottome,& lay their fruits therupon; then they ſtop the top with an earthen lid,and afterwards cover all with earth.Some there are which ſmeare their bunches of Grapes all over with potters clay,and when they are dried in the Sunne, hang them up in ſolars for their uſe: and againſt the time that they ſhould occupie them,ſteepe them in the water,and ſo waſh off the foreſaid clay. But for to keepe Apples that are of any worth,they temper the ſame clay with wine,and make a morter thereof,wherein they lap the ſaid Apples.Now if thoſe Apples be of the beſt kind and right ſoveraigne,after the ſame ſort they cover them with a cruſt of the like paſt or morter,or elſe clad them within a coat of waxe: and if they were not fully ripe before,they grow by that meanes, and breake their cruſt or cover what ever it be.But this would not be forgotten,that they uſe alwaies to ſet the Apple or fruit upright upon the taile,howſoever they be kept. Some there are who gather Apples and ſuch like fruit with their ſlips & ſprigs, hide them within the pith of an Elder tree,and then cover them in earth,as is before written.And others there are,who for every Peare or Apple,have a ſeverall earthen pot,and after that their lids be well cloſed and ſtopped with pitch,then they encloſe them againe with great veſſels or tuns.Nay, ye ſhall have ſome to lap them with flockes and wooll,and ſo put them in caſes,and them they ſee well luted with morter made of clay and chaffe tempered together. Some order them in the ſame ſort,but they put them in earthen pans:and others make no more adoe, but digan hole in the ground, floore the bottome with a courſe of ſand,put the Apples or fruit within,and then anone when they are thus buried,cover all with mould. There be that uſe Quinces in this wiſe; they take them,annoint them with waxe comming out of Pontus,and ſuffer them afterwards to lie covered in honie.

Columella mine author reporteth,That fruits will keepe well in earthen pots throughly pitched,and afterwards ſet in pits,and drenched in ceſternes of water. In the maritime coaſts of Liguria next to the Alpes, they uſe to take Grapes after they are dried in the Sun, and wrap them within bands of ruſhes and reeds,put them up in little barrels,and ſtop them cloſe with plaſter. The Greekes have the ſame faſhion: but they take for that purpoſe, the leaves of the Plane-tree,of the vine it ſelfe,or elſe the fig-tree,after they be dried one day in the ſhade: and when they be in the barrell,betweene every bed of grape cluſters, they couch a courſe of grape kernels, and ſuch refuſe remaining after the preſſe. And in this manner are the grapes of Coos and Berytus preſerved: and for ſweetneſſe and pleaſant taſt,there are no better to be found. And ſome there be, that for to counterfeit theſe excellent Grapes, beſmeare them with lie aſhes ſo ſoone as ever they be pulled from the Vine, and preſently drie them in the Sunne: which done, they enwrap them within leaves,as hath been ſaid before,and ſo couch them cloſe within the cake of preſſed grapes. Nevertheleſſe, there be divers that chuſe rather to keepe Grapes in the ſaw duſt or ſhavings of Firre wood, Poplar, or Aſh. Some are afraid to let Grapes hang neare to Apples, Pomegranates, and ſuch like fruit, and therefore give in charge to let them preſently after they bee gathered,for to bee hung up in garners or bourded lofts: ſuppoſing that the duſt which they gather from above, is the beſt cover to defend and preſerve them. The remedie to keepe Weſpes from them,is to ſpurt or ſquirt oile out of a mans mouth upon them. And thus much concerning the way to preſerve Grapes and other fruits aforeſaid. As for Dates, we have ſpoken ſufficiently before,of them.

CHAP.

Chap. xviii.

Of Figs, 29 ſorts of them.

OF all other fruits which have tender pils or skins, and are called in Latine, Poma, Figs are the biggeſt: for ſome of them are found to be as great as Peares. As touching the Sycomores of Ægypt and Cypres, and of their admirable fruit, we have written ynough in the treatiſe of forraine Trees. The Idæan Figs that come from the mountaine Ida, are of colour red, of the bigneſſe of Olives, onely rounder they be, & in taſt reſemble Medlars. In the region about Troas neare unto the ſaid hill Ida, they call that fig-tree Alexandrina. It is as thicke as a mans arme about at the cubite or elbow, and full of braunches: the wood thereof is tough and ſtrong, howbeit, pliable to wind and bend which way a man would have it. Void of milkie ſubſtance it is, clad with a greene barke, bearing leaves like the Tillet or Linden tree, but that they be ſoft. *Oneſicritus* writeth, that the Fig-trees in Hyrcania beare more pleaſant fruit than ours in Italie, without all compariſon: alſo that they carie a greater burden, and be farre more plentifull, inſomuch, as one of them doth ordinarily yeeld 270 Modij of Figs. We have here alſo in Italie many Fig-trees brought out of other forraine countries, to wit, from Chalcis and Chios: whereof there be many ſorts. For both our Lydian Figs which are of a reddiſh purple colour, and alſo the Mamillane or teat-Figs, have a reſemblance of the ſaid Chalcidian and Chian Figs, yea, and the Calliſtruthion Figs beyond others not a little, in goodneſſe of taſt: and theſe of all the reſt are the coldeſt. For as touching the Affricane Figs, which many men prefer before all others, they hold the name of Affricke, as if it were their native countrey: and yet there is a great queſtion thereabout, and I wot not well what to ſay thereof, conſidering that it is not long agoe that Affricke begun firſt to have Fig-trees. For the Alexandrine Figs are of the blacke kind, having a white rift or chamfre, and are ſurnamed Delicate. The Rhodian Fig is likewiſe blacke of hue: and ſo is the Tiburtine, which alſo is of the haſtie kind, and ripe before others.

Moreover, there be certaine Figges which beare the names of thoſe that brought them firſt into Italie: namely, the Livian and Pompeian, and ſuch are fitteſt to bee dried in the Sunne, and ſo to be kept all the yeare long for a mans uſe: like as the illfavoured, fooliſh, and gaping Figges Mariſcæ: as alſo thoſe that are ſpeckled with ſpots like the leaves of the Laconian reeds.

There are beſides the Herculanean, Albicerate, and Aratian white Figs, which of all other are moſt flat and broadeſt, and withall have the leaſt taile or ſteele whereby they hang. The Porphyrite Figs firſt ſhew upon the tree, and ordinarily are longeſt tailed. The ſmalleſt Figs called the popular Figs, which alſo are of all others the baſeſt and of leaſt account, come next after and beare the Porphyrites companie. Contrariwiſe, the Chelidonian Figges be the laſt: and ripen againſt Winter.

Moreover, certaine Figs there be which are both early, and alſo lateward: namely, ſuch as bear twice a yeare: and be both blacke and white: for they are ripe firſt in harveſt, and afterwards, in time of vintage. Late alſo it is before the Duracinæ be ripe, ſo called of the hard skin which they have. Alſo ſome there be of the Chalcidian kind which beare thrice a yeare. At Tarentum there grow none but ſuch as are exceeding ſweet, and thoſe they call Omas [or rather Oenadas, taſting of wine.]

Cato in his treatiſe of Figs writeth thus, The unſavorie Fig dotes, Mariſcæ, would be ſowne in an open, light, and chalkie ground. But the Affricane, Herculane, and the Winter Saguntine Figges, as alſo the Telliane (which are blacke and long tailed) love a fatter ſoile, or elſe well dunged.

After this, Figges have chaunged into ſo many kinds, and altered their names very often: in ſuch ſort, that by this point it is evident, how the world is altered, and to what varietie this life is ſubject. In ſome provinces, as namely in Mœſia, there be winter Figs that hang all Winter long: but they come to be ſuch, more by art and cunning, than naturally of themſelves. For ſo ſoone as Autumne is paſſed, and Winter approcheth, they uſe to cover with dung certaine little Fig-trees which they have, and together with them the greene yong Figs which they find upon them in Winter: and when they have continued ſo the ſharpe time of dead Winter, ſo ſoone as the weather beginneth to be more warme and temperate, they diſcharge both fruit and tree of their dung: which being thus let out againe (as it were) where they ſeemed buried, and now comming

A to light; they no ſooner find the freſh aire, and another kind of nouriſhment differing from that, whereby they lived, but doe embrace and receive the comfort of the new Sunne moſt greedily, as if they were new born and revived: in ſuch ſort, as that in Mœſia, notwithſtanding it be a moſt cold region, ye ſhall have the figs of theſe trees to ripen, when others begin to bloſſome: and by this meanes become early and haſtie figs in another yeare.

Now for as much as we are fallen to mention the figs in Affricke, which were in ſo great requeſt in the time of *Cato*, I am put in mind to ſpeake ſomewhat of that notable opportunitie and occaſion, which by the meanes of that fruit he tooke for to root out the Carthaginians, and raſe their very citie. For as he was a man who hated deadly that citie, & was otherwiſe carefull to provide for the quiet and ſecuritie of his poſteritie, he gave not over at every ſitting of the Senate, to
B importune the Senators of Rome, and to crie out in their eares, That they would reſolve and take order to deſtroy Carthage. And in very truth, one day above the reſt, he brought with him into the Senate houſe an early or haſtie fig which came out of that countrey: and ſhewing it before all the lords of the Senate, I would demaund of you (quoth he) how long agoe it is (as you think) ſince this figge was gathered from the tree? And when none of them could denie but that it was freſh and new gotten. Lo (quoth he) my maiſters all, this I doe you to weet, It is not yet full three daies paſt, ſince this figge was gathered at Carthage: ſee how neare to the wals of our cittie wee have a mortall enemie. Vpon which remonſtrance of his, preſently they concluded to begin the
C third and laſt Punicke warre, wherein Carthage was utterly ſubverted and overthrowne. Howbeit *Cato* ſurvived not the raſing and ſaccage of Carthage, for he died the yeare immediatly following this reſolution. But what ſhall we ſay of this man? whether was more admirable in this act, his provident care and promptneſſe of ſpirit; or the occaſion preſented by the ſuddaine object of the fig? was the preſent reſolution and forward expedition of the Senate, or the vehement earneſtneſſe of *Cato*, more effectuall to this enterpriſe? Certes, ſomewhat there is above all, and nothing in mine opinion more wonderfull, that ſo great a ſignorie and ſtate as Carthage, which had contended for the Empire of the world for the ſpace of a hundred and twentie years, & that, with the great conquerors the Romanes, ſhould thus be ruined and brought to nought, by occaſion of one fig. A deſſeigne, that neither the fields loſt at Trebia and Thraſymenus, nor the diſgrace received at the battell of Canna, wherein ſo many brave Romanes loſt their lives and left their dead bodies on the grounde to be enterred, could never effect: nay not the diſdain that they tooke to ſee the Carthaginians encamped and fortified within three miles of Rome, ne yet the bravadoes of *Annibal* in perſon riding before the gate Collina, even to dare them, could ever bring to paſſe. See how *Cato* by the meanes of one poore fig, prevailed to bring and preſent the forces of Rome to the very wals of Carthage.

There is a fig-tree called Navia, honoured with great reverence, in the common Forum and publicke place of juſtice at Rome, even where the ſolemne aſſemblies are held for elections of magiſtrates neare to the Curia, under the old ſhops called Veteres: as if the gods had conſecrated it for that purpoſe: neare (I ſay) it is to the Tribunall named Puteoli Libonis, & planted there by *Actius Navius* the Augur, where the ſacred reliques of his miracle, to wit, the Raſour and the Whetſtone, were ſolemnely enterred: as if it came of the owne accord from the ſaid Curia into the Comitium, and had not been ſet by *Navius*. This tree if it begin at any time to wither, there is another replanted by the Prieſts, who that way are very carefull & ceremonious. But a greater reſpect there is had of another in remembrance of the firſt fig-tree named Ruminalis (as it were) the nource of *Romulus* & *Remus*, the two young princes fondlings, and founders alſo of the citie of Rome: for that under it was found a ſhee Wolfe giving to thoſe little babes the teat (which in Latine they called Rumen:) and for a memoriall hereof there is a monument of Braſſe erected neare unto it, repreſenting that ſtraunge and wonderfull ſtorie. There grewalſo a third fig-tree before the temple of *Saturne*, which in the yeare 260 after the foundation of the citie of Rome, was taken away: at what time as a chappell was built there by the Veſtall nuns, and an expiatorie ſacrifice offered, for that it overthrew the image of *Sylvanus*. There is a tree of the ſame kind yet living, which came to grow of it ſelfe, no man knoweth how, in the middeſt of the Forum Romanum, and in that very place where was the deepe chinke and gaping of the ground, that menaced the ruine of the Romane Empire; which fatall and portentious gulfe, the renowned knight *Curtius* filled up with the beſt things that were to be found in the citie, to wit, his Vertue & Pietie incomparable, teſtified by a moſt brave and glorious death. In the very ſame place likewiſe there is

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an Olive and a Vine,which came thither by as meere a chaunce,but afterwards well looked and trimmed by the whole people for to enjoy the pleasure of the shade therof. And there also stood an altar, which afterwards was taken away by occasion of the solemne shew of sword-fencers, which *Julius Cæsar* late Emperour,exhibited to doe the people pleasure,which were the last that plaied their prices and fought at the sharpe in the said Forum. To conclude,wonderfull it is to see, how the fruit of this tree maketh hast to ripe: a man would say that Nature therein sheweth all her skill and force to ripen figs all together at once.

Chap. xix.

Of the wild Fig-trees: and of caprification.

THere is a kind of wild fig-trees, which the Latines call Caprificus,that never bringeth any fruit to maturitie: but that which it selfe hath not, it procureth to others,and causeth them to ripen. For such is the interchangeable course & passage of causes in Nature,that as this thing putrifieth,that engendreth; and the corruption of one is the generation of another. By this it comes to passe, that the wild fig-tree breedeth certaine flies or gnats within the fruit thereof: which wanting nourishment, and not having to feed upon in those figs, because they become rotten and putrified as they hang upon the tree,they flie unto the other kind of gentle and tame fig-trees, where they settle upon the figs, and greedily nibble thereupon, untill they have made way,and pierced into them; and by that means let in at first the breath of the warme Sunne,and that comfortable and vegetative aire besides,that helpeth to ripen them. Soone after they sucke up and spend the milkie humor which they find there, and which keepeth the figs still as it were in their infancie,and hindereth their speedie and timely maturitie. True it is,that the figs in time would ripen of themselves by the power and benefite of Nature onely: howbeit, skilfull and industrious husbandmen take order alwaies to set these wild fig-trees near to the place where other fig-trees grow,but with due regard of the wind side,that when the foresaid gnats breake forth and are readie to flie out,a blast of wind might carie them to the other. And hereupon came the devise and invention to bring whole swarmes and casts of them as they hang one to another, from other places, that they might settle upon the figs to consume the raw moisture within. Now, if the soile be leane and hungrie,and the fig-trees growing thereupon exposed to the North wind, there is no such need of this help: for the figs will drie sufficiently of themselves,by reason as well of the situation of the place,as the clifts & rifts in them, which will effect that which the gnats or flies abovenamed might performe. The like effect is to be seene also where much dust is,namely, if a fig-tree grow neare unto an high way,much frequented and travelled by passengers. For the nature of dust is to drie and soke up the superfluous moisture of the milke within figges. And therefore when they are thus dried, whether it be by the meanes of dust,or of the said flies feeding, which is called Caprification, they fall not from the tree so easily: by reason they are discharged of that liquid substance,which maketh them both tender and also ponderous,weightie, and brittle withall.

All figges ordinarily are tender and soft in handling. Those which be ripe,have small graines within them: their succulent substance besides,when they begin to ripen,is white like milke: but when they are perfectly ripe,it is of the colour of honie. They will hang upon the tree untill they be old: and when they are aged, they yeeld a certaine liquor which distilleth from them in manner of a gum,and then in the end become drie.

The better sort of figges have this honour and priviledge,to be kept in boxes and cases for the purpose: and principally those that come from the Isle Ebusus, which of all others are the very best and largest: yea, and next to them those that grow in the Marrucines countrey. But where they are in more plentie,they put them up in great vessels called Orcæ,as namely in Asia: also in barrels and pipes,as at Ruspina,a citie in Barbarie. And in very truth,the people of those countries make that use of them when they be drie,that they serve both for bread and meat. For *Cato* setting downe an order for diet and victuals fit and sufficient for labourers, ordained, that they should be cut short of their other pittance,when figs are ripe,and make up their full meales with it. And it is not long since the manner came up, to eat fresh new figges with salt and poudered meats, in stead of cheese. And for to be eaten in this sort, the figges called Coctana, (wherof we have written before)and the dried figs Caricæ are commended: as also the Cauneæ,

which

A which when *M. Craſſus* ſhould embarke, in that expedition againſt the Parthians (wherein hee was ſlaine) preſaged ill fortune, and warned him not to go forward: namely, when at the very inſtant that he was readie to ſet foot a ſhipbourd, there was a fellow heard to crie thoſe figs for to be ſold, pronouncing alowd, Cauneas, Cauneas; which word in ſhort ſpeaking was all one with *Cave ne eas*, [*i.* Beware of this voiage, and goe it not.] All theſe ſorts of figs, *L. Vitellius* brought out of Syria, unto his ferme or manour that he had neare Alba, having been L. governour or Lieutenant generall in thoſe parts, namely, in the latter end of *Tyberius Cæſar* the Emperour: and the ſame *Vitellius* was afterward Cenſor at Rome.

Chap. xx.

B

Of Medlars: three kinds of them.

MEdlars and Serviſes, may well and truly be raunged in the ranke of Apples and Peares. Medlars be of three ſorts; namely, Anthedon, and Setania, and the third which they call Gallicum, [*i.* the French medlar] which is of a baſtard nature, yet it reſembleth the Anthedon, rather than the other. As for the Setanian medlar, the fruit is greater and whiter than the reſt; alſo the kernels or ſtones within are of a more ſoft ſubſtance, and not altogither ſo woodie and hard. The reſt are ſmaller than theſe Setania or common Medlars, but they have a better ſmell and more odoriferous, and withall will laſt longer. The tree it ſelfe that beareth Medlars, is reckoned among the greateſt ſort: the leaves before they fall, wax red: the roots be many
C in number, and run downe right deepe into the ground; by which means, unneth or very hardly, they be quite rooted up. This tree was not known in Italie by *Catoes* daies.

Chap. xxi.

Of Serviſes, foure kinds.

OF Serviſes there be foure ſundry ſorts, differing one from the other: for ſome of them are round like apples; others pointed at one end as Peares; a third kind are faſhioned like egs, as ſome long or tankard apples: and theſe are apt to be ſoone foure. For ſweet ſent and pleaſant taſt, the round excell all others: the reſt have a relliſh of wine. The beſt kind of
D them are they that have ſoft and tender leaves about their ſteles whereby they hang. The fourth ſort they call Torminale, allowed onely for the remedie that they affourd to mitigate the torments and wringing of the cholique. This tree is never without fruit, howbeit the ſmalleſt of all the reſt, and differeth from the other, for it beareth leaves very like to the Plane. There are none of them that beare fruit before they be three yeares old. Laſtly, *Cato* would have Serviſes to be preſerved and condite in Cuit.

Chap. xxii.

Of the Walnut.

E THe next place to theſe for bigneſſe, the Walnuts do challenge, which they cannot claime for their credit and authoritie; & yet they are in ſome requeſt among other licentious and wanton Feſcennine ceremonies, at weddings: for leſſe they be than Pine-nuts, if a man conſider the groſſeneſſe of the bodie outwardly; but in proportion therto they have a much bigger kernell within. Moreover, Nature hath much graced and honoured theſe nuts with a peculiar gift that ſhe hath endued them with, namely, a double robe wherewith they are clad: the firſt, is a tender and ſoft huske; the next, a hard and woodie ſhell: which is the cauſe, that at marriages they ſerve for religious ceremonies, reſembling the manifold tunicles and membranes wherein the infant is lapped and enfolded within the wombe: and this reaſon ſoundeth more probable, than that they ſhould bee ſcattered, becauſe in their fall they rebound and make a ratling [to
F drowne (forſooth) all other noiſes from the bride-bed or chamber.] That theſe Nuts alſo were brought out of Perſis firſt by commaundement of the Kings, is evident by their Greeke names; for the beſt kind of them, they call Perſicon, and Baſilicon; as one would ſay, the Perſian and Roiall nut: and theſe indeed were the firſt names. Afterwards, the nut came to be named Caryon, (by all mens confeſſion) for the heavineſſe of head which it cauſeth, by reaſon of the

ſtrong ſmell. Their outward huske ſerveth to die wooll, and the little nuts when they come new forth, are good to give the haire of the head a reddiſh or yellow colour: the experiment thereof was firſt found, by ſtaining folkes hands as they handled them. The elder that nuts be and longer kept, the more oleous and fatter they are. The onely difference of the ſundrie kinds, conſiſteth in the ſhell, for that of ſome it is tender and brittle, in others hard; in one ſort it is thin, in another thicke: laſtly, ſome have ſmooth and plaine ſhels, others againe be as full of holes and cranies. C

Walnuts be the fruit alone that Nature hath encloſed with a cover parted in twaine, and ſo is joined and ſet togither; for the ſhell is divided and cleft juſt in the mids, and ech halfe reſembleth a little boat. The kernell within is diſtinguiſhed into foure parts, and betweene every one there runneth a membrane or skin of a woodie ſubſtance. As for other nuts, their meat is ſolide and compact, as we may ſee in Filberds and Hazels, which alſo are a kind of nut, and were called heretofore Abellinæ, of their native place, from whence came good ones at firſt. They came out of Pontus into Natolia and Greece, and therefore they bee called Ponticke nuts. Theſe Filberds likewiſe are covered with a ſoft bearded huske, and as well the ſhale as the kernell is round and ſolide, all of one entire peece. Theſe nuts alſo are parched for to be eaten: and within their belly they have in the mids a little chit or ſpurt, as if it were a navill. H

As for Almonds, they are of the nature of nuts, and are reckoned in a third ranke. An upper huske they have like as Walnuts, but it is thin: like as alſo a ſecond coverture of a ſhell. The kernell differeth ſomewhat; for broader it is and flatter, and their skin more hard, more ſharpe, and hoter in taſt than that of other nuts. Now whether the Almond tree were in Italie during the life of *Cato*, there is ſome doubt and queſtion made; becauſe he nameth the Greeke nuts, which ſome doe hold for a kind of Walnut. Mention maketh he beſides of the Hazle nuts or Filberds, I

* or *Calvæ*, *i.* Bald.

as well the * Galbæ, as the Preneſtine, commended by him above all others, which he ſaith, are put up in pots and kept freſh and greene within the earth. Now adaies the Thaſian and Albeuſian nuts be in great account: and two ſorts beſides of the Tarentine; whereof the one hath a tender and brittle ſhell, the other as hard: and thoſe are the biggeſt of all other, and nothing round. He ſpeaketh alſo of the ſoft-ſhaled Filberds Molluſcæ, the kernels whereof doe ſwell and cauſe their ſhells to cleave in ſunder.

But to returne againe to our Walnuts: ſome to honour them, interpret their names Iuglandes, as a man would ſay, the nuts of *Iupiter*. It is not long, ſince I heard a knight of Rome (a gentleman of high calling and who had been Conſull) profeſſe and ſay, That he had certaine Walnut trees that bare twice a yeare. As for Fiſticks, we have ſpoken alreadie of them. To conclude, K
theſe kind of nuts the above-named *Vitellius* brought firſt into Italy at the ſame time, namely, a little before the death of *Tyberius* the Emperour: and withall, *Flaccus Pompeius* a knight of Rome, who ſerved in the warres togither with him, carried them over into Spaine.

Chap. xxiii.

Of Cheſtnuts, eight kinds.

WEe entitule Cheſtens alſo by the name of Nuts, although indeed they are more aptly to be called a kind of Maſt. This fruit what ever it be, is encloſed within an huske, L
and the ſame defended and armed all over with a rampier and palaiſade (as it were) of ſharpe pricks like the skin of an Vrchin; whereas the Acorne and other maſt is but halfe covered, and that defence in them, is begun only. And certes, a wonderfull matter it is, that we ſet ſo little ſtore by this fruit, which Nature is ſo carefull to hide and defend. Vnder one of theſe husks ye ſhall find ſometime three Cheſtnuts, and thoſe having certain tough pills or ſhells very pliable. But the skin or filme within, and which is next to the bodie or ſubſtance of the fruit, unleſſe it bee pilled off and taken away, marreth the taſt of it, like as it doth alſo in other nut-kernels. Cheſtnuts, if they be roſted, are better and more pleaſant meat than otherwiſe. They uſe alſo to grind them to meale, and therof is made a kind of bread that poore women for hunger will eat. The firſt Cheſtnuts were knowne to grow about Sardis, and from thence were brought, & there- M
fore the Greekes call them Sardinian nuts: but afterwards they came to he named Διὸς Βαχανί, [*i. Iupiters* nuts] when as men began to graffe them; for thereby they became more excellent: and at this day there be many ſorts of them. The Tarentine be gentle, and not hard of digeſtion, and in forme flat and plaine. That which they call Balanitis, is rounder, it will ſoone be pilled and cleanſed,

cleanſed, and of it ſelfe will leape out of the skin. And of this kind, the Salarian is more neat, flat, and ſmooth: the Tarentine not ſo eaſie to bee handled and dealt withall: the Corellian is more commended than the reſt; as alſo the Meterane, which commeth of it by graffing: the manner whereof wee will ſhew when wee come to treat of graffes. Theſe have a red pilling, in which regard they are preferred before either the three cornered, or the blacke common ones, which be alſo called Coctivæ, [*i.* Cheſtnuts to be boiled.] The beſt Cheſtnuts are they which grow about Tarentum, and Naples in Campaine. All the reſt are good in manner for nothing but to feed ſwine: * ſo cloſe ſticketh the pill or inner skin alſo, as if it were ſoudered to the kernell within, and ſo hard is it to ſeparate the one from the other.

* *Scrupuloſa corticis interioris circa nucleos quoque ferrumination.*

Chap. XXIIII.

Of Carrobes: of fleſhie and pulpous fruits: of Mulberries: of liquid kernels or graines, and of berries.

THe fruit called Carobes or Caracts, may ſeeme to come neare unto the foreſaid Cheſtnuts, (ſo paſſing ſweet they be) but that their cods alſo are good to be eaten. They bee as long as a mans finger, and otherwhiles hooked like a faulcheon, and an inch in bredth. As for maſt, it cannot be reckoned among fruit properly called Poma, and therefore we will ſpeake of them apart, according to their nature.

Now are we to treat of the reſt which are of a carnous ſubſtance: and thoſe are divided into fruits that be ſoft and pulpous, and into berries. The carnoſitie in Grapes and Raiſons, in Mulberries, and the fruit of the Arbut tree, differeth one from the other. Again, the fleſhie ſubſtance in Grapes between the skin and the liquid juice, is one, and that in Sebeſten is another. Berries have a carnoſitie by themſelves, as namely Olives. Mulberries yeeld a juice or liquor within the pulpe thereof, reſembling wine. They be ordinarily of three colours: at the beginning, white; ſoone after, red; and when they be ripe, blacke. The Mulberrie tree bloometh with the laſt, but the fruit ripeneth with the firſt. Mulberries when they be full ripe, ſtaine a mans hands with the juice thereof, and make them blacke: but contrariwiſe being unripe, they ſcoure them cleane. There is not a tree againe, wherein the wit of man hath been ſo little inventive, either to deviſe names for them, or to graffe them, or otherwiſe, ſave only to make the fruit fair and great. There is a difference which we at Rome doe make, betweene the Mulberries of Oſtia and Tuſculum.

There is a kind of Mulberries growing upon the bramble, but their skin is much harder than the other. Like as the ground-ſtrawberries differ in carnoſitie from the fruit of the Arbut tree, and yet it is held for a kind of Strawberrie, even as the tree it ſelfe is tearmed the Strawberry tree. And there is not a fruit of any other tree, that reſembleth the fruit of an hearb growing by the ground, but it.

The Arbut tree it ſelfe ſpreadeth full of braunches: the fruit is a whole yeare in ripening: by which means a man ſhall find alwaies upon the tree, yong and old fruit togither one under another; & the new evermore thruſteth out the old. Whether it be the male or female that is barren, writers are not agreed. Surely the fruit is of baſe or no reckoning at all: no marveile therfore if the Latines gave it the name Vnedo, for that one of them is enough to be eaten at once. And yet the Greeks have two names for it, to wit, Comarum and Memecylon: whereby it appeareth, that there be as many kinds among the Latines alſo, although it be tearmed by another name, Arbutus. K. *Iuba* ſaith, that theſe trees in Arabia grow to the heigth of fiftie cubits.

As touching Graines and liquid Kernels, there is great difference between them: for firſt and foremoſt, among very grapes, there is no ſmall diverſitie in the skin, either for tendernes or thickneſſe: in the inner ſtones or pepins, which in ſome grapes are but ſingle, or one alone; in others double, and thoſe commonly yeeld not ſo much wine as the others doe. Secondly, thoſe of Ivie and Elder differ very much: yea and the graines within a Pomegranat are not like to others in their forme, for they alone be made cornered and angle-wiſe; and ſeverall as they be, they have not a particular skin of their owne, but they are altogither clad within one, which is white: and yet they ſtand all wholly of a liquor and pulpous carnoſitie, eſpecially thoſe which have within them but a ſmall ſtone or woodie kernell.

Semblably, there is as much varietie in berries: for Olives differ much from Bay berries: likewiſe thoſe of the Lote tree are divers from them which the Corneil tree beareth. The Myrtle alſo

differeth from the Lentiske in the very berrie. As for the hulver or holly berries, and the hawes of the white-thorne, they are without any juice or liquor: whereas Cherries bee of a middle kind, betweene berries and graines. This fruit is white at the first, as lightly all berries be whatsoever: but afterwards, some wax green, as Olives and Baies; others turn red, as Mulberries, Cherries, and Cornoiles; but in the end they all become blacke, as Mulberries, Cherries, and Olives.

Chap. xxv.

Of Cherries, eight kinds.

BEfore the time that *L. Lucullus* defeated K. *Mithridates*, there were no Cherrie-trees in Italie: but after that victorie (which was about the 680 yeare from the foundation of the city of Rome) he was the man that first brought them out of Pontus, and furnished Italie so well with them, that within six and twentie yeares, other lands had part thereof, even as far as Britaine beyond the ocean. Howbeit (as we have before said) they could never be brought to grow in Ægypt, for all the care and industrie employed about them. Of Cherries, the reddest sort be called Apronia; the blackest, Actia: the Cæcilian be round withall. The Iulian Cherries have a pleasant taste, but they must bee taken newfrom the tree and presently eaten; for so tender they be otherwise, that they will not abide the carriage. Of all other, the Duracine Cherries be the soveraign, which in Campaine are called Pliniana. But in Picardie, and those low countries of Belgica, they make most account of the Portugall Cherries: as they do likewise who inhabit upon the river Rhene. They have a hew with them composed of three colours, between red, black, and green, & alwaies looke as if they were in ripening still. It is not yet full five years since the Cherries which they call Laurea, were known: so called they be, because they were grafted upon a Baytree stocke, and thereof they take a kind of bitternesse, but yet not unpleasant to the taste. There be moreover Macedonian Cherries, growing upon a small tree seldom above three cubits high: and yet there be certain dwarfe Cherries not full so tall, called Chamæcerasti, [*i.* ground cherry-shrubs.] The Cherrie-tree is one of the first that yeeldeth fruit unto his master, in token of thankfulnesse & recognisance of his paines all the yeare long. It delighteth to grow in cold places and exposed to the North. The Cherrie will drie in the sunne, and may be kept in barrels like Olives.

Chap. xxvi.

Of the Corneile and Lentiske tree.

THe same care is had in conditing the berries of the Corneil and the Lentiske, as in preserving Olives: so curious are men to content their tooth, as if all things were made to serve the belly. Thus we see, how things of divers rellishes are mingled togither, and one giveth a taste unto another, and causeth it to be pleasant at the tongues end. Nay we entermingle all climats and coasts of heaven and earth to satisfie our appetite: for to one kind of meat wee must have drugs & spices fetcht as far as from India: to another, out of Ægypt, Candie, and Cyrene: and in one word, for every dish wee have a severall land to find us sawce. To conclude, wee are growne to this passe, that wee cease not to sophisticate our viands, even with hurtfull things, so they taste well: yea and to make dishes of very * poisons, because we would devoure and send all downe the throat. But more plainely hereof, in our professed discourse of the nature and vertue of Hearbs.

* Mushroms.

Chap. xxvii.

The diversitie of tasts and savors.

IN the mean time, as touching those things which are common as wel to all fruits, as juices and liquors: first and foremost we find of tasts thirteen severall kinds; to wit, sweet, pleasant, fattie, bitter, harsh and unpleasant, hot and burning at the tongues end, sharpe and biting, tart or astringent, sowre, and salt. Over and besides all these, there be three others of a most strange and wonderfull nature: The first is that, wherein a man may have a smacke of many tasts togither, as in wines: for in them a man shall find an harsh, sharpe, sweet, and pleasant rellish all at once; and yet these all differ from the native verdure of wine. A second sort there is besides, which carieth a straunge and different taste verily from the thing it selfe, and yet it hath besides the proper and peculiar

A culiar taſt of the owne ſubſtance, as the Myrtle: for it carrieth a ſeverall taſt by it ſelfe, proceeding from a certain kind, mild, and gentle nature, which cannot truly be called either ſweet, fattie, or pleaſant, if we would ſpeake preciſely. Laſt of all, water hath no taſt at all of any juice or liquor whatſoever, and yet therein is a flat taſt by it ſelfe, which is called wateriſh, that nothing els beſides hath: for if a man doe taſt in water a relliſh of any ſap or liquor, it is reputed for a bad and naughtie water.

Furthermore, a great and principall matter of all theſe taſts, lyeth in the ſavour and ſmell; which is connaturall unto the taſt, and hath a great affinitie with it: and yet in water, is neither one or other to be perceived: or if any be felt either by tongue or noſe, it is faultie, that is certain. Finally, a wonderfull thing it is to conſider, that the three principall Elements whereof the world
B is made, namely, Water, Aire, and Fire, ſhould have no taſt, no ſavour, nor participation of any ſap and liquor at all.

Chap. xxviii.

The iuyce and ſap of Fruits and Trees: their colours and odours: the nature of Apples, and ſuch ſoft Fruits: and the ſingular commendation of all Fruits.

TO begin withall, The Peare, the Mulberrie, and the Myrtle-berrie, have a juice or ſap within them, reſembling wine; * no marveile then, of Grapes, if they have the like. Olives, Bay-
C berries, Walnuts, and Almonds, have a fattie liquor in them. The Grape, the Fig, and the Date, carie a ſweet juice with them. Plums have a wateriſh taſt.

There is no ſmall difference in the colour alſo that the juice of fruits doe beare: Mulberries, Cherries, and Corneils, have a ſanguine and bloudie liquor: ſo have the blacke grapes; but that of the white grapes, is likewiſe white. The juice of Figs toward the head or necke of the fruit, is white like milke; but of another colour in all the bodie beſides. In Apples, it is in manner of a froth or fome: in Peaches, of no colour; and yet the Duracina of that kind, be full of liquor; but who was ever able to ſay, what colour it was of?

The odour and ſavour likewiſe of fruits, is as ſtraunge and admirable: for the ſmell of Apples is ſharpe and piercing; of Peaches, weake and wateriſh. As for ſweet fruits, they have none at all:
D for verily we ſee, that ſweet wines likewiſe have little or no ſmell, whereas the ſmall and thin are more odoriferous: and all things in like manner of a ſubtill ſubſtance, doe affect the noſthrils more, than the thicke and groſſer doe: for whatſoever is ſweet in ſent, is not by and by pleaſant and delicat in taſt; for ſent & ſmack are not alwaies of like ſort: which is the reaſon that Pome-citrons have a moſt piercing and quicke ſavor, whereas in relliſh they are rough and harſh: and ſo it fareth in ſome ſort with Quinces. As for Figs, they have not any odor. And thus much may ſuffice in generall, for the ſundry kinds and ſorts of fruits which are to be eaten: it remaineth now to ſearch more narrowly into their nature.

To begin then with thoſe that are encloſed within cods or husks: ye ſhall have ſome of theſe cods to be ſweet, and the fruit or ſeed contained within, bitter: and contrariwiſe, many of thoſe
E graines or ſeeds are pleaſant and toothſome enough; but eaten with the huskes, they bee ſtarke naught and loathſome.

As touching berries, there be that have their ſtone or woodie ſubſtance within, and the fleſhy pulpe without, as Olives, and Cherries: and there bee againe, that within the ſaid woodie ſtone have the carnoſitie of the berry, as ſome fruits in Ægypt, whereof wee have alreadie written. As for berries carnous withoutforth, and pulpous fruits called Apples, they be of one nature. Some have their meat within, & their woodie ſubſtance without, as nuts: others, their carnoſitie without, and their ſtone within, as Peaches and Plums. So that in them we may ſay, That the faultie ſuperfluitie is environed with the good fruit, whereas fruit otherwiſe is ordinarily defended by the ſaid imperfection of the ſhell. Walnuts and Filberds are encloſed with a ſhell: Cheſtnuts be
F contained under a tough rind, which muſt be pulled off before they be eaten; whereas in Medlars, the carnoſitie and it be eaten togither. Acornes, and all ſorts of maſt, be clad with a cruſt; Grapes with a skin, Pomegranats with a rind and a thin pannicle or skin beſides. Mulberries doe conſiſt of a fleſhie ſubſtance and a liquor. Cherries, of a skin & a liquid juice. Some fruits there be, the ſubſtance whereof will ſoon part from their woodie ſhell without, or ſtone within, as nuts

* *Minimè quod miremur uvis.* Others diſtinguiſh thus, *Minimè (quod miremur) uvis*, to this ſenſe: whereas in grapes (& that may be a wonder) there is none ſuch.

and Dates: others ſticke cloſe and faſt thereto, as Olives and Bay berries. And there be againe that participate the nature of both, as Peaches: for in thoſe that be called Duracina, the carnous ſubſtance cleaveth hard to the ſtone, ſo as it cannot be plucked from it; whereas in the reſt, it commeth eaſily away. Now ye ſhall meet with ſome fruits, that neither without in ſhell, nor within-forth in kernell, have any of this woodineſſe, as a kind of Dates [named Spadones.] And there be againe whoſe verie kernell and wood is taken for the fruit it ſelfe, and ſo uſed; as a kind of Almonds, which (as we ſaid) doe grow in Ægypt. Moreover, yee ſhall have a kind of fruits furniſhed with a double ſuperfluitie of excrement to cover them without-forth, as Cheſtnuts, Almonds, and Walnuts. Some fruits have a ſubſtance of a threefold nature, to wit, a bodie without; then, a ſtone or wood under it; and within the ſame, a kernell or ſeed, as Peaches. Some fruits grow thicke and cluſtred togither upon the tree, as Grapes, and likewiſe Serviſes, which claſpe about the braunches and boughes, bearing and weighing them downe as well as grapes. Others for it, hang here and there very thin, as Peaches. And there be againe that lye cloſe, contained (as it were) within a wombe or matrice, as the kernels of the Pomegranats. Some hang by ſmall ſteles or tailes, as Peares: others in bunches, as Grapes and Dates. Ye ſhall have ſome fruit grow by cluſtres, and yet hang by a long taile, as the berries of Ivie and Elder: and others againe cleave faſt to the braunch of the tree, as Bay berries: ſome both waies, as Olives; for there be of them that have long ſteles, and others again ſhort tailed. Some fruits there be alſo, that are formed like cups or mazers, as Pomegranats, Medlars, the Ægyptian Beane or Lote, and that which groweth about the river Euphrates.

As for the ſingularities and commendable parts in fruits, they be of divers ſorts. Dates are moſt ſet by for their fleſhie ſubſtance; and yet they of Thebes above in high Ægypt, are eſteemed onely for their outward coat or cruſt that they have. Grapes, and the Dates called Caryotæ, are in great account and eſtimation for their juice and liquor: Peares and Apples be moſt accepted for their callous ſubſtance next unto their skin or paring; but the honey-apples Melimela, are liked for their carnoſitie and fleſhie pulpe within: Mulberries content the taſt with their griſtle or cartilage ſubſtance: and the beſt part of the nut, is the verie graine of the kernell. In Ægypt, ſome fruits are regarded onely for their utmoſt skin, as drie Figs: when Figges bee greene, the ſame is pilled off and caſt aſide like a ſhell; but be they once drie, the ſaid skin is paſſing good. In all kind of Papyr-reeds, Ferula plants, and the white thiſtle Bedegnar, the verie maine ſtemme is the fruit for to be eaten. The ſhoots alſo and tender ſprigs of the Fig-tree, are reputed for good meat, and alſo medicinable. To come unto the ſhrubs kind, the fruit of Capres is eaten togither with the ſtalke. As for the Carobe, what is it elſe but a meere woodie ſubſtance that folke doe eat? (and yet the ſeed and graines within them, are not altogither to be deſpiſed for the propertie that they have) although to ſpeake preciſely, it cannot properly bee called either fleſh, wood, or griſtle; neither hath it found any other convenient name to bee tearmed by.

Chap. xxix.

Of the Myrtle, eleven kinds thereof.

NAture hath ſhewed her wonderfull power and bountie, eſpecially in the juice of the Myrtle, conſidering that of all fruits, it alone doth yeeld two ſorts both of oile and wine: likewiſe the mixture or compoſition called Myrtidanum, as we have ſaid before. Alſo there was another uſe in old time of Myrtle berries: for, before that Pepper was found and uſed as it is, they ſerved in ſtead thereof: from whence tooke name that exquiſite and daintie diſh of meat, which even at this daie is called Myrtatum. And hereof came that excellent ſauce ſo highly commended for the brawne of the wild Bore, when for the moſt part Myrtle berries are put thereto to dip the meat therein, for to give a better taſt to that kind of veniſon.

As for the very tree it ſelfe, the firſt that ever was ſeene within the compaſſe and precincts of Europe (which beginneth at the mountaines Ceraunia) was about Circeij, where ſtood the tombe ſomtimes of *Elpenor*; and ſtill it retaineth the Greeke name: whereby we may well judge, that it is a ſtraunger. Howbeit there grew a Myrtle tree in old time, when Rome was firſt founded, even in that plot of ground where the cittie now ſtandeth. For thus goeth the hiſtorie: That upon a time the Romanes and Sabines being raunged in battaile array, and at the point

to fight a field, and to trie the quarell (for the wrong which the Sabines pretended, was done unto them, in regard that the Romanes had raviſhed their daughters being young maidens) were reconciled and made friends: and thereupon laid downe their armes and weapons, and were there purified with the ſacred branches of Myrtle, in that very place wherein now the temple & image of *Venus Cluacina* ſtandeth: which thereupon tooke the name (for that *Cluere* in old Latine, ſignified to purge or cleanſe.) Beſides, that tree otherwiſe doth affourd a kind of ſweet perfume to bee burned. Now was this tree choſen for that purpoſe then to make attonement and to ratifie the mariage betweene the Romanes and the Sabine virgines, becauſe *Venus* is the preſident and mother of carnall copulation, and the patroneſſe withall of the Myrtle tree. I will not confidently avouch, but me thinks I may preſume to ſay, That the Myrtle was of all other trees firſt planted in the publicke places of Rome for ſome memorable preſage and fore-tokening of future events and things to come. For whereas the temple of *Quirinus* (that is to ſay, of king *Romulus*) is reputed for one of the moſt antique buildings now extant, there grew even before it for a long time two old and ſacred Myrtle trees: the one named Patritia [*i.* the Myrtle of the Nobilitie:] and the other Plebeia; that is to ſay, the Myrtle of the Comminaltie. The Patritian proſpered and flouriſhed many yeares together, whiles the Plebeian began to fade and wither. And to ſay a truth, ſo long as the Senate was able to maintaine and uphold their authoritie, the Myrtle of the Nobles continued freſh and greene, and ſpread her boughes at large; whereas that other of the Commons ſeemed as it had been blaſted, dried, and halfe dead: but after that the ſtate of the Senate began to quaile and droupe, (which was about the time of the warre with the Marſyans) as their tree decaied and waſted, ſo the Plebeians Myrtle held up the head againe: and ſo by little and little, as the majeſtie of the Senatours was taken downe and abated to nothing, ſo their Myrtle waxed poore and barren untill it became drie and ſtarke dead. Moreover, there ſtood an old chappell and an altar conſecrated unto *Venus Myrtea*, whom now at this day they call Murtia.

Cato in his time wrote of three kinds of Myrtle: to wit, the white, the blacke, and the Conjugula (ſo called haply of wedlock or mariage:) and peradventure it may come of the race of thoſe Myrtles belonging to *Venus Cloacina* abovenamed. Howbeit, in theſe daies we diſtinguiſh our Myrtles otherwiſe; for ſome we repute wild and ſavage, others tame and gentle: and theſe both are likewiſe of two ſorts, to wit, either broader or narrower leaved. To the wild kind properly belongeth the prickie Myrtle Oximyrſine. As for the tame and gentle Myrtles, they bee thoſe that are planted in hort-yards and gardens, wherewith gardeners make arbors, knots, and divers deviſes. Whereof be ſundrie kinds. The Tarentine with ſmall leaves; ours of Italie with broader; and the myrtle *Hexaſtica, which is very ful of leaves, and ordinarily each branch hath ſix ranks thereof. But theſe are altogether out of requeſt: both the other are full of boughes and branches. As touching the abovenamed Conjugula, I ſuppoſe it bee the ſame that our common Myrtle here in Italie. But the moſt odoriferous Myrtle of all others, is that which groweth in Ægypt.

* not Exotica, *Turneb.*

Now concerning the wine of Myrtles, *Cato* hath ſhewed us the manner how to make it: namely, to take the blacke Myrtle berries, to drie them in the ſhade untill they have loſt all their wateriſh humiditie, and ſo to put them in Muſt or new wine, and let them lie there infuſed, or in ſteep. For certainely, if the berries be not dried before, they would yeeld an oile from them. Howbeit, afterwards there was a deviſe found out to make a white wine of the white Myrtle in this manner. Take of Myrtles well beaten or ſtamped, the quantitie of two *Sextares, ſteepe the ſame in three hemires or pints of wine, and then ſtraine and preſſe forth the liquor.

* *i.* wine-quarts.

Moreover, the very leaves of the Myrtle tree, being dried and reduced into a kind of meale, are ſingular good for to cure the ulcers in mens bodies: for certaine it is, that this powder doth gently eat away and conſume the ſuperfluous humours that cauſe putrifaction. And beſides, it ſerveth well to coole and repreſſe immoderate ſweats. Over and beſides, the oile alſo of Myrtles (a ſtraunge and wonderfull thing to tell) hath a certaine rellice and taſt of wine: and withall, the fat liquor thereof is endued with a ſpeciall and principall vertue to correct and clarifie wines; if the bagges and ſtrainers where-through the wine runneth, bee firſt ſoaked and drenched therewith: for the ſaid oleous ſubſtance retaineth and keepeth with it all the lees and dregs, and ſuffereth nothing but the pure and cleare liquour to paſſe through, and more than that, it carrieth with it the commendable odor and principall vertue of the ſaid oile. Furthermore it is ſaid, That if a wayfaring man that hath a great journey for to goe on foot, carrie

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in his hand a ſticke or rod of the Myrtle tree, he ſhall never bee wearie, nor thinke his way long and tedious. Alſo *rings made of Myrtle twigs, without any edged yron toole, keepe downe and cure the ſwelling bunch that riſeth in the groine. What ſhould I ſay more? The Myrtle intermedleth in warre affaires: For *Poſthumius Tubertus*, being Conſull of Rome (who was the firſt that entred in a pettie triumph, ovant into the cittie, becauſe he had eaſily conquered the Sabines, and drawne in manner no bloud of them) rode triumphant in this manner, to wit, crowned with a chaplet of Myrtle, dedicated to *Venus Victreſſe*: and from that time forward the Sabines (even his very enemies) ſet much ſtore by that tree, and held it in great reverence. And ever after, they that went but ovant into the cittie after a victorie, ware this kind of guirland onely, except *M. Craſſus*, who after hee had vanquiſhed the fugitive ſlaves, and defeated *Spartacus*, marched in a coronet of Lawrell. *Maſſurius* writeth, how Generals when they entred triumphant into Rome, riding in their ſtately chariots (which was the greateſt honor of all others) ware upon their heads, chaplets of Myrtle. *L. Piſo* reporteth, That *Papyrius Maſſo* (who firſt triumphed in mount Albanus over the Corſians) uſed ever after to come unto the Games Circenſes, and to behold them, crowned with a guirland of Myrtle. This *Papyrius* was grandfather by the mothers ſide, to the ſecond *Scipio Africanus*. Finally, *M. Valerius*, according to a vow that hee made in his triumphs, uſed to weare coronets as well of Lawrell as Myrtle.

*Virgei annuli. But *Turnebus* readeth *Virgæ Jaculi*, i. ſtaves or Iavelines made of their ſtreit boughes. And, *Expertes ferri*, i. not headed with yron.

Chap. xxx.

Of the Lawrell or Bay tree, thirteene kinds thereof.

LAwrell is appropriate unto triumphs, and beſides groweth moſt pleaſantly before the gates of the Emperors court, and Biſhops pallace; giving attendance there as a dutifull portreſſe or huiſſer, moſt decently. This tree alone both adorneth their ſtately houſes, & alſo keepeth, watch and ward duly at the dores. *Cato* ſetteth downe two kinds of Lawrell, to wit, the Delphicke, and the Cyprian. Hereunto *Pompeius Lenæus* hath joined a third, which he called Muſtacea; becauſe in old time they uſed to lay the leaves thereof under certaine cakes or March-panes (which in thoſe daies they called Muſtacea) as they were in baking: This third kind hath leaves of all others largeſt, flaggie, hanging, and whitiſh withall. As for the Delphick, it carieth leaves of one entire colour, greener than the reſt: the baies or berries thereof likewiſe are biggeſt, and of a reddiſh greene colour. With this Lawrell were they wont to be crowned at Delphos, who woon the priſe at any tournoy or ſolemne games; as alſo the victorious captains who triumphed in Rome. The Cyprian Lawrell hath a ſhort leafe, blacke, criſped, or curled, and about the ſides or edges thereof it turneth up hollow like a gutter or creſt-tile. Howbeit, afterwards there were raunged in the ranke of Lawrels other trees, to wit, the Tinus, which ſome take to be the wild Lawrell, others ſay it is a kind of tree by it ſelfe: indeed, it differeth from other Lawrels in the colour of the fruit; for it beareth blew berries. Then came the roiall Lawrell in place, which began to be called Auguſta or Imperiall. This is a very tall and big tree, with leaves alſo as large in proportion, and the Baies or Berries that it beareth are nothing ſharpe biting and unpleaſant in taſt. But ſome there be that thinke this roiall Bay, is not a Lawrell, but a ſeverall tree apart, as having longer and broader leaves than the reſt of the ordinarie ſort. And theſe writers ſpeaking of other kinds, call our common Bay tree, Baccalia, and namely that which is ſo fruitfull and beareth ſuch a ſort of Berries: as for the fruitleſſe and barren of that ſort they name Triumphall, which, as they ſay, is uſed in triumphs. Whereat I marvell very much, unleſſe this ordinance and cuſtome began of *Auguſtus Cæſar*, by occaſion of that Lawrell which came to him as ſent from heaven (as I wil ſhew anon more at large;) and of all others it is for height loweſt, in leafe ſhort and frizled, very geaſon and hard to be found. Now there is another kind of Lawrell named Taxa, very fit for greene arbors, and to be wrought into knots. Out of the middeſt of the leafe there groweth foorth another little one, in manner of a skirt, tongue, or lappet of the leafe. Alſo without any ſuch excreſſence, there is that, which they name Spadonia, as one would ſay, the guelded Bay, which careth not how ſhadowie the place be where it groweth: for be it never ſo remote out of the Sunne, or overſhadowed howſoever, yet it ceaſeth not to grow and overſpread the ground where it ſtandeth. Moreover in this rank is to be reckoned the wild ſhrub called Lowrier or Chamædaphne. There is beſides the Lawrell Alexandrina, which ſome call Idæa, [i. Mountaine Lawrell] others Hyppoglottion, [i. Horſe-tongue] ſome Daphnitis, others Carpophyllon or Hypelate. This plant putteth forth

braunches

A braunches immediately from the root, of a ſpan or nine inches long: very proper and handſome to draw workes, or to clad arbours withall in a garden, alſo to make guirlands and chaplets. The leaves are more ſharpe and pointed, ſofter alſo and whiter than thoſe of the Myrtle, yea, & have within them a bigger grain or ſeed, of colour red. Great plentie therof groweth upon the mountaine Ida, likewiſe about Heraclea in Pontus: and in one word, never but in hillie and mountaine countries.

As for the hearbe Daphnoeides or Laureola, it hath many names. For ſome tearme it Pelaſgum, others Eupetalon, and there are againe who would have it to be Stephanos Alexandri [*i. Alexanders* chaplet.] This plant alſo is full of branches, carying a thicker and ſofter leafe than the common Lawrell: and if a man taſt therof, it will ſet both the mouth and alſo the throat on a fire:
B the berries that it beareth be blackiſh, inclining to a kind of red. It hath been noted and obſerved in auncient writers, that no kind of Lawrell in old time was to be found in the Iſland Corſica: and yet in theſe daies it is there planted, and thriveth well ynough. The Lawrell betokeneth peace: inſomuch, as if a braunch thereof be held out among armed enemies, it is a ſigne of quietnes and ceſſation from arms. Moreover, the Romans were wont to ſend their miſſive letters adorned with Lawrell, when they would give advertiſement of ſome ſpeciall good newes or joifull victorie: they uſed beſides to garniſh therewith their launces, pikes, and ſpeares. The knitches alſo & bunches of rods, borne before grand captaines and generals of the armie, were beautified and ſet out with Bay branches. Herewith they ſticke and bedecke the boſome of that moſt great and gracious *Iupiter*, ſo often as there commeth glad tidings of ſome late and freſh victorie. And all this
C honor is done to the Lawrell, not becauſe it is alwaies greene, nor for that it pretendeth and ſheweth peace (for in both theſe reſpects the olive is to be preferred before it) but in this regard, That the faireſt and goodlieſt of them grow upon the mountaine Pernaſſus: and therefore alſo is it ſo acceptable to *Apollo*, for which cauſe (as may appeare by *L. Brutus*) the Roman kings in old time were accuſtomed to ſend great preſents and oblations thither to the temple of *Apollo*: or peradventure it was in memoriall of that ground that bare Lawrell trees, and which according to the Oracle of *Apollo*, the ſaid *L. Brutus* kiſſed, when he intended the publicke freedome of the cittie, and minded to deliver it from the yoke and ſervitude of the kings: or haply, becauſe it alone either ſet with the hand before the dores, or brought into the houſe, is not blaſted and ſmitten with lightning. And theſe reaſons verily induce me to beleeve, that in times paſt they choſe the
D Bay tree for their triumphs, before any other: rather than as *Maſſurius* would have it, becauſe the Lawrell ſerved for a ſolemne perfume, to expiate and aſſoile the carnage and execution done upon the enemies. And ſo farre were men in old time from common uſing either Lawrell or Olive, & polluting the ſame in any prophane uſe, that they could not be permitted to burn thereof upon their altars when they ſacrificed or offered Incenſe, although it were to doe honor to the gods, and to appeaſe their wrath and indignation. Evident it is, that the Bay tree leaves, by their crackling that they make in the fire, doe put it from them, and ſeeme to deteſt and abhorre it. It cureth moreover the diſeaſes of the guts [the Matrice and the Bladder] alſo the laſſitude and wearineſſe of the ſinewes. It is reported, that *Tiberius Cæſar* the Emperor uſed ever to weare a chaplet thereof when it thundered, for feare of being ſtrucken with lightening.

E Moreover, certaine ſtrange and memorable events as touching the Bay tree, have happened about *Auguſtus Cæſar*. For *Livia Druſilla*, (who afterwards by mariage with the ſaid *Auguſtus*, became Empreſſe, and was honoured with the title of *Auguſta*) at what time as ſhe was affianced and eſpouſed to *Cæſar*, chaunced as ſhe ſat ſtill, to have an exceeding hote Hen to light into her lap (which an Ægle flying aloft, let fall from on high) without any harme at all to the ſaid pullet. Now when this ladie or princeſſe adviſed and conſidered well the Hen, without being aſtonied & amazed at ſo ſtrange and miraculous a ſight, ſhe perceived that the Hen held in her bill a Lawrell, branched full of Bay berries. The Wiſards and Soothſaiers were conſulted withall about this wonderfull occurrent, and gave adviſe in the end to preſerve the bird and the brood therof: likewiſe to ſet in the ground the foreſaid braunch, and duly to tend and looke unto it. Both the one
F and the other was done and executed accordingly, about a certaine houſe in the countrie belonging to the *Cæſars*, ſeated upon the river Tyberis, neare the cauſey or port-way Flaminia, about nine miles from Rome: which houſe therupon was called, Ad Gallinas, as a man would ſay, The ſigne of the Hens. Well, the foreſaid braunch mightily proſpered, and proved afterwards to be a grove of Lawrels, which all came from that firſt ſtocke. In proceſſe of time, *Auguſtus Cæſar* when

he

he entred in Triumph into Rome, caried in his hand a braunch of that Bay tree, yea, and wore a chaplet upon his head of the same: and so did all the Emperours and *Cæsars* his successors after him. Hereof also came the custome to set againe and replant those braunches of Lawrell that Emperors held in their hands when they triumphed: & thereof continue whole woods & groves distinguished each one by their severall names, and perhaps therefore were they named Triumphall. This is the onely tree knowne in the Latine tongue, whereof a man beareth the name. Againe, there is not another tree besides that hath the leafe to carie in the Latine tongue a denomination and name by it selfe apart, as well as the tree; for where as the plant is named Laurus, the leafe we call Laurea. Moreover, there is a place likewise within the citie of Rome upon mount Aventine, retaining still the name Loretum, which first was imposed upon it by reason of a Lawrell grove which grew there. The Bay tree also is used in solemne purifications before the gods: and to conclude, this would be resolved and agreed upon by the way, That if a branch thereof be set, it will prosper and become a tree; although *Democritus* and *Theophrastus* make some doubt thereof. Thus much of Lawrels and other domesticall and native trees: it remaineth now to write of those that be wild and savage, and of their natures.

THE XVI. BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

The Proëme.

Hitherto have we treated of those Trees that beare Apples and such like fruits: which likewise with their mild juice and sweet liquors made our meats first delightsome, and taught us to mingle together with the necessarie food for sustentation of our lives, that which maketh it delicate and pleasant to content our tast: as well those trees that naturally were so in the beginning, as those which through the industrie and skill of man, what by graffing and what by wedding them (as it were) to others, became toothsome, and delectable to our tongue: whereby also wee have gratified in some sort wild beasts, and done pleasure to the foules of the aire. It followeth now by order, that we should discourse likewise of trees that beare Mast, those trees (I say) which ministred the first food unto our forefathers, and were the nourices that fed and cherished mankind in that rude wild age and poor infancie of the world: but that I am forced to breake the course of mine historie, and prevented with a deepe studie and admiration arising from the truth and ground of experience, to consider, What manner of life it might be, to live without any trees or shrubs at all growing out of the earth.

Chap. 1.

Of nations that have no trees nor plants among them. Of wonderfull trees in the Northerly regions.

WE have shewed heretofore, that in the East parts verily toward the maine Ocean, there be many countries in that estate, to wit, altogether destitute of trees. In the North also I my selfe have seene the people called *Cauchi, as well the greater as the lesse (for so they be distinguished) where there is no shew or mention at all of any tree. For a mightie great compasse, their countrey lieth so under the Ocean,

*i. The low countries of Zeland, &c.

and

and ſubject to the tide, that twice in a day & night by turnes, the ſea overfloweth a mightie deale of ground when it is floud, & leaveth all drie again at the ebbe & return of the water: inſomuch, as a man can hardly tell what to make of the outward face of the earth in thoſe parts, ſo doubtfull it is between ſea and land. The poore ſillie people that inhabit thoſe parts, either keepe together on ſuch high hils as Nature hath afforded here & there in the plain: or els raiſe mounts with their owne labour and handie worke (like to Tribunals caſt up and reared with turfe, in a campe) above the height of the ſea, at any Spring tide when the floud is higheſt; and thereupon they ſet their cabines and cottages. Thus dwelling as they doe, they ſeeme (when it is high water, & that all the plaine is overſpread with the ſea round about) as if they were in little barkes floting in the middeſt of the ſea: againe, at a low water when the ſea is gone, looke upon them, you would take them for ſuch as had ſuffered ſhipwracke, having their veſſels caſt away, and left lying ato-ſide amid the ſands: for yee ſhall ſee the poore wretches fiſhing about their cottages, and following after the fiſhes as they go away with the water. They have not a four-footed beaſt among them: neither enjoy they any benefite of milke, as their neighbour nations doe: nay, they are deſtitute of all meanes to chaſe wild beaſts, and hunt for veniſon; in as much as there is neither tree nor buſh to give them harbour, nor any neare unto them by a great way. Sea-weeds or Reike, ruſhes and reeds growing upon the waſhes & meeres, ſerve them to twiſt for cords to make their fiſhing nets with. Theſe poore ſoules and ſillie creatures are faine to gather a ſlimie kind of fattie mud or oaſe, with their very hands, which they drie againſt the wind rather than the Sunne: and with that earth, for want of other fewell, they make fire to ſeeth their meat (ſuch as it is) and heat the inward parts of their bodie, readie to bee ſtarke and ſtiffe againe with the chilling North wind. No other drinke have they but raine water, which they ſave in certaine ditches after a ſhower, and thoſe they dig at the very entrie of their cottages. And yet ſee! this people (as wretched and miſerable a caſe as they bee in) if they were ſubdued at this day by the people of Rome, would ſay (and none ſooner than they) that they lived in ſlaverie. But true it is, that Fortune ſpareth many men, to let them live ſtill in paine and miſerie. Thus much as touching want of woods and trees.

On the other ſide, as wonderfull it is to ſee the mightie forreſts at hand thereby, which overſpread all the reſt of Germanie: and are ſo big, that they yeeld both cooling and ſhade to the whole countrey. Yea, the very talleſt woods of all the reſt are a little way up higher in the countrey, and not farre from the Cauchi aboveſaid: and eſpecially thoſe that grow about the two great loughes or lakes in that tract. Vpon the bankes whereof, as alſo upon the ſea-coaſts, there are to be ſeene thicke rowes of big Okes, that love their ſeat paſſing well, and thrive upon it in growth exceeding much: which trees happening to be either undermined by the waves and billowes of the ſea under them, eating within their roots, or chaſed with tempeſtuous winds beating from above, carie away with them into the ſea (in manner of Iſlands) a great part of the Continent, which their roots doe claſpe and embrace: wherewith being counterpoiſed and ballaiſed, they ſtand upright, floting and making ſaile (as it were) amid the waves, by the meanes of their mightie armes which ſerve in ſtead of tackling. And many a time verily, ſuch Okes have frighted our fleets and armadoes at ſea: and eſpecially in the night ſeaſon, when as they ſeemed to come directly againſt their proes ſtanding at anker, as if of purpoſe they were driven upon them by the waves of the ſea: inſomuch, as the ſailers and paſſengers within, having no other meanes to eſcape them, were put to their ſhifts, and forced for to addreſſe themſelves, and range a navall battell in order, and all againſt trees, as their very enemies.

Chap. II.

Of the huge and great forreſt Hercynia.

IN the ſame North climate is the mightie forreſt Hercynia. A huge and large wood this is, ſtored with tall and big Okes, that never to this day were topt or lopt. It is ſuppoſed they have beene ever ſince the creation of the world, and (in regard of their eternall immortalitie) ſurmounting all miracles beſides whatſoever. And to let paſſe all other reports which happily would be thought incredible, this is knowne for certaine, That the roots of the trees there, run and ſpread ſo farre within the ground, that they encounter and meet one another: in which reſiſtance they ſwell and riſe upward, yea, and raiſe up mounts of earth with them to a good height in

in many places: or, where as the earth followeth not, a man shall see the bare roots embowed arch-wise, and mounting aloft as high as the very boughes: which roots are so interlaced, or else rub one against the other, striving (as it were) not to give place, that they make a shew of great portailes or gates standing open so wide, that a whole troupe or squadron of horsemen may ride upright under them in ordinance of battell.

Chap. iii.

Of trees bearing Mast.

MAst trees they were all, for the most part, which the Romanes ever so highly honoured and held in best account.

Chap. iiii.

Of the Civicke guirland: and who were honoured with chaplets of tree-leaves.

FRom Mast trees [and the Oke especially] came the Civicke coronets. And in very truth, these were the most honourable badges and ornaments that could possibly bee given unto souldiours and men of warre, in regard of their vertue and manhood: yea, and now for a good while, our Emperours have had this chaplet graunted unto them, in token and testimonie of clemencie: ever since that by our prophane and unkind civile warres the world is growne to this passe, that it is reputed a singular demerite and gracious act, not to kill a cittizen of Rome, but to let him live. To this kind of guirland, none other be comparable: for the Murall and Vallare coronets (bestowed upon them that either skaled the walls, or entred the breach first into an enemie citie, or else mounted over the rampier of a campe) albeit they were of gold, and of greater price by farre, yet they gave place to these. Yea, the very Navall coronets, fashioned like the three forked pikes of ship beake-heads (wherwith they were honoured, who had performed some brave service at sea) came behind these Civick guirlands, due to them who have rescued citizens and saved them out of the enemies hands: and yet in these our daies there have beene knowne twaine in that kind most renowmed above the rest; whereof the one was bestowed upon *M. Varro*, by *Pompey* the Great, for defeating the pyrates, and for scouring & clearing the seas of them: the other likewise given to *M. Agrippa*, by [*Augustus*] *Cæsar*, for vanquishing the Sicilians, who also were no better than rovers.

Now for as much as we are light upon the mention of Navall or Rostrate coronets, this would be noted, That in old time the said brasen beake-heads of ships woon from the enemies, and set upon the front of the Tribunall or publicke pulpit in Rome, served for an ornament to beautifie the Forum or common place of the citie; so as the very bodie of the people of Rome seemed to be crowned and honoured thereby. But after that the Tribunes in making seditious Orations, began to stampe and fare like mad men there, to trample (I say) under foot, and to pollute that sacred place and those goodly ensignes; after that they fell once every man to make his privat and particular profit of the common good, without regard to advance the weale publicke; after that each one sought to strengthen and arme himselfe by the benefite of authoritie, and that to the weakening of the maine state, insomuch as they who were reputed by their place sacrosanct and inviolable, polluted and prophaned all: then the said ornaments of beake-heads, which beautified the place under their feet, served to adorne the heads of Romane cittizens. So as, to returne againe now to the abovenamed *Agrippa*, *Augustus Cæsar* gave unto him a Navall coronet for subduing the Sicilian pyrates: and himselfe received of mankind a Civicke chaplet, for sparing the bloud, and saving the lives of so many citizens.

In auncient time they used to crowne none but the gods. And hereupon it is, that the Poët *Homer* speaketh of no guirlands and chaplets but due to the celestiall & heavenly wights, or at leastwise in the name of a whole armie, for victorie atchieved in some notable battell: for to one man alone hee alloweth not any, no not in regard of the better hand in combate or single fight. And to say a truth, the first that ever set a guirland upon his owne head, was prince *Bacchus*, and the same was made of Ivie: but afterwards, those that sacrificed to the honor of gods, not only ware chaplets themselves, but also adorned therewith the heads of the very beasts which were appointed to be killed for sacrifice. In the end, the custome was taken up to honor them with

guir-

guirlands, who wan prizes at thoſe ſacred and ſolemne games, Olympia, Iſthmia, Pythia, and Nemœa. Howbeit the manner was then, and ſo continueth to this day, To give chaplets to the ſaid victours, not in their owne name, but in the behalfe of their native country, which by open proclamation they pronounce to be crowned and honoured thereby. And hereof it came alſo, that ſuch coronets and chaplets were graunted to them that ſhould triumph, yea and ſoon after to thoſe alſo who had woon the prize in any publick games, upon condition to dedicate them to the temple of the gods.

To diſcourſe what Romane cittizen received this honour firſt of a chaplet or coronet, were a long peece of worke, and nothing pertinent to our purpoſe and matter in hand; conſidering that they were acquainted with none at all, but in regard of ſervice performed in the warres. Yet thus much I may averre for certein, That no nation under heaven, nay put them all togither, can ſhew ſo many ſorts of chaplets and coronets, as this one ſtate and people of Rome. K. *Romulus* crowned *Hoſtus Hoſtilius* with a guirland of bare greene leaves, for that in the forcing and ruining of Fidena, he brake firſt into the citie and made way for the reſt. This man was grandſire to *Tullus Hoſtilius* king of Rome. Semblably in the warre againſt the Samnites, wherein *Cornelius Coſſus* the Conſull was L. Generall, the whole armie crowned *P. Decius* the father with a chaplet of greene leaves, who then was a martiall Tribune or Colonell over a regiment of ſouldiors, for that he had ſaved and delivered the ſaid armie.

But now to come againe to our Civicke guirland, it was made at firſt of the Ilex or Holme tree leaves: afterwards men tooke a better liking to make it of the Æſculus, a tree conſecrated to *Iupiter*. They ſtaied not there, but chaunged ſoone after with the common oke; neither made they any preciſe choiſe, but tooke the leaves of that which came next hand, whereſoever they found it growing; provided alwaies that it bare acorns: for all the honour of theſe guirlands conſiſted principally in the maſt. Moreover, there belong to theſe Civicke guirlands ſtreight lawes and ordinances, in which regard theſe chaplets be proud and ſtately: and wee may be bold to compare them with that Paragon-coronet of the Greekes, which paſſeth all others, given ſolemnly and publiſhed in the preſence of *Iupiter*, and made of the wild Olive dedicated unto him: comparable (I ſay) to any crowne or chaplet whatſoever; even to that, for which a citie in token of joy, would not ſticke to lay open a * breach in their very wall to receive it when it ſhould enter in. The lawes ordained in this behalfe run in this forme. *Imprimis, Hee that is to enjoy the honour of a Civicke chaplet, ought, Firſt, To have reſcued a cittizen, and withall to kill the enemie in whoſe daunger he was. Item, It is required, that the enemies the ſame day held the very ground and were maſters hereof, wherein the reſcue was made and the ſervice performed. Item, That the partie himſelfe ſo ſaved, doe confeſſe the thing, for otherwiſe all the witneſſes in the world availe not in this caſe. Item, The man thus delivered, muſt be a free citizen of Rome in any hand: for ſet caſe that hee were a king which was thus reſcued, if he were a ſtraunger, and came onely among the auxiliaries to aid the Romans, it would not boot, nor gaine any man this honour for to ſave his life. Item, Say that the Generall himſelfe were reſcued and delivered out of daunger, the partie for his good ſervice ſhould have no more honour done unto him, than if he had preſerved but a ſimple common ſouldior, ſo hee were a Romane citizen: for the makers of theſe ordinances aimed chiefly at the life of a citizen whoſoever he was, without regard of any other circumſtance. Item, Hee that was once crowned with this guirland, was endued alſo with theſe priviledges: That he might weare it alwaies after, whenſoever it pleaſed him: That ſo often as he came in place of publicke plaies or games, men ſhould accuſtomably riſe up unto him, yea and the very Senators themſelves, doe him honour in that ſort: That he ſhould have his place allowed him to ſit next to thoſe of Senators degree: That both himſelfe, and alſo his father and grandſire by the fathers ſide, ſhould ever after be exempt from all civile charges and enioy full immunitie.* Thus much concerning the lawes and priviledges attending upon the Civicke guirland. *Siccius Dentatus* (as we have ſpecified before) received fourteen of theſe chaplets for his good ſervice: [*Manlius*] *Capitolinus* ſix, and he verily had one of them for reſcuing *Servilius* being Generall of the armie. As for *Scipio Africanus*, he refuſed this honour when it was offered and preſented unto him, for ſaving the life of his own father at the journey and battaile of Trebia. O the excellent orders & cuſtoms of thoſe times, worthie of immortalitie & everlaſting memorie! ô the wiſdome of men in thoſe daies, who aſſigned no other reward for ſo brave exploits and ſingular works, but honor only! and wheras all other militarie coronets they enriched and adorned with gold, they would not ſet the life of a citizen at any price. A plaine and evident

* As the manner was to receive the Hieronicæ.

profession of our aunceſtors and predeceſſours, That it is an unlawfull and ſhamefull thing to ſeeme for to ſave a mans life, in hope of any gaine and profit thereby.

Chap. v.

Of Maſt, thirteene kinds.

MAny nations there be even at this day, and ſuch as enjoy peace and know not what warre meaneth, whoſe wealth and riches lyeth principally in Maſt: yea and elſewhere in time of dearth and for want of other graine, folke uſe to drie their maſt, grind it into meale, temper it with water, and thereof make dough for bread. Moreover, even at this day throughout Spaine, the manner is to ſerve up acorns and maſt to the table for a ſecond ſervice: & ſweeter it is being roſted under the cinders and aſhes, than otherwiſe. Over and beſides, provided it is by an expreſſe act and law of the twelve tables in Rome, That a man may gather the maſt that falleth from his owne trees into another mans ground.

Divers and ſundrie ſorts there be of Maſt, and their difference conſiſteth in the forme and faſhion of the fruit, in the ſite and ſituation of the place, in the ſex, and in the taſt: for the maſt of the Beech tree is of one figure and making, the Acorne (which is the maſt of the Oke) another; and the maſt of the Holme or Ilex, differeth from them both: yea & in every one of theſe kinds, they doe varie one from another. Alſo, ſome are of trees growing wild; others more mild and gentle, loving places well tilled and ordered by husbandrie. Some like the hillie countries, others the champaine and the plaines. Semblably there is maſt comming from the male trees: there is again that groweth on the female. In like manner, the relliſh and taſt maketh a difference and diverſitie in maſt. The ſweeteſt of all, is the Beech maſt: for *Cornelius Alexander* reporteth, That the inhabitants of Chios, when they were ſtreightly beleaguerd, endured the ſiege a long time by the benefit and ſubſtance onely of the maſt. We are not able diſtinctly to ſpecifie name by name, the ſundrie ſorts of maſt and the trees which beare the ſame, conſidering that in everie countrey they alter their names: for wee ſee the Robur and the Oke to grow commonly everie where, but the Eſculus is not ſo rife in all countries. A fourth ſort there is of the ſame kind, which is not knowne ordinarily in moſt places of Italy. We will therefore diſtinguiſh them according to their nature and properties: yea and when need ſhall require, by their Greeke names alſo.

Chap. vi.

Of the Beech maſt, and other Maſts: of Charcole: and the feeding of Hogs.

THe Beech maſt is like to the kernell of a Cheſtnut, encloſed within a three-cornered skin. The leafe of the tree is thin and very light, reſembling that of the Poplar: it turneth yellow paſſing ſoone. In the middle whereof, for the moſt part, and in the upper ſide, it bringeth forth a little greene berrie, pointed ſharpe at the top. The maſt of Beech, Rats and Mice are much delighted in: marke therefore when there is ſtore of that maſt, yee ſhall have as great encreaſe of that vermin. It will feed alſo Reremice or Dormice fat: and the Ouſels or Blackbirds take a great liking thereto, and will flie unto it. Lightly, all trees are more fruitfull one year than another, and beare moſt every ſecond yeare; but above all, Beeches keepe this courſe. As touching Maſt (which properly is ſo called) it groweth upon the Robur, the common Oke, the Eſculus, Cerrus, Ilex, and Corke tree. All kinds of maſt are conteined more or leſſe, within a rough cup, which lieth cloſe to the utmoſt skin thereof, & claſpeth it about. The leaves of all theſe maſt trees, except the maſt-Holme Ilex, be heavie, fleſhie, large, waved or indented along the ſides, neither be they yellow when they fall, as the Beech leaves are; longer alſo or ſhorter, according to the divers trees whereupon they grow.

Of the Ilex or maſt-Holme tree, there be two ſorts. Thoſe in Italy differ not much in leafe from the Olive. Some Greekes call them Smilaces, but in other provinces Aquifoliæ. The maſt of Ilex, both the one and the other, is ſhorter and ſlenderer than of the reſt: *Homer* calleth it Acylon, by which name he diſtinguiſheth it from other maſt. The male Holms (men ſay) beare no fruit. The beſt maſt and the biggeſt, is the Acorne growing upon the common Oke: next to it is that of the Eſculus: as for that of the Robur, it is but ſmall. The Cerrus carrieth a maſt unpleaſant to the eie, and rough to be handled, for clad it is with a cup beſet with ſharpe pricks like

to

A to the Cheſtnut ſhell. Among the very Acornes, ſome have a ſweeter taſt than others: the female Oke beareth thoſe that be more ſoft and tender; the male, tough, thicke, and maſſie: and the beſt ſimply are thoſe that come of the broad-leafed Oke, for ſo it is called by reaſon of the large leaves. Moreover, there is another difference in maſt and acorns, for ſome be bigger than others; again, there are that have thin & fine skins encloſing the kernell; and ye ſhall find others for them as thicke skinned; likewiſe many of them are covered with a rough and ruſtie tunicle; and as many againe do ſhew immediatly their bare white skin and naked fleſhie ſubſtance. Furthermore, that maſt is accounted good, which at both ends (taking it long-waies) groweth hard in manner of a ſtone: howbeit that which hath an hard ſhell without, and a ſoft bodie within, is better than that which is hardened in the carnous ſubſtance of the bodie; and lightly neither of
B both theſe qualities happeneth to any but the male kind. Over and beſides, ſome you ſhall find faſhioned long like an egge; others as round as a ball; and a third ſort ſharpe pointed. The outward colour alſo yeeldeth varietie: for ſome be blacker than other, but the whiter commonly be the better ſet by. Some are bitter toward the ends, and ſweet in the mids. The length alſo & the ſhortneſſe of the ſtele or taile whereto they hang, maketh a difference. The very tree it ſelfe cauſeth diverſitie of the fruit: for that oke which beareth the biggeſt maſt, is named Hemeris. A ſhorter tree this is than the reſt, with a round head, and putting foorth many hollow armepits (as it were) of boughs and braunches. The wood or timber of the ordinarie and common Oke is tougher and harder than that of others, and leſſe ſubject to putrefaction: full of arms & boughs it is, as the other, but it groweth taller and is thicker in the bodie. The higheſt of all, is the Ægi-
C lops, which loveth to grow in wild and deſart places. Next to it for talneſſe, is the broad leafed Oke, but the timber thereof is not ſo good and profitable for building, howſoever it be emploied for to make charcole: yet being once ſquared to that purpoſe, & cleft, it is ſubject to the worme, and will ſoone rot: and for this cauſe, being in quarters, they uſe not to make cole of it cloven, but of the ſolid and round boughs or braunches thereof. And yet this kind of charcole ſerveth onely the Bloome-ſmithies and furnaces; the hammer-mils alſo of braſſe and copper-ſmiths, whome it ſtandeth in great good ſtead and ſaveth them much fewell; for it burneth and conſumeth no longer than the bellowes goe: let them leave blowing once, preſently the cole dieth; and ſo it laſteth long: for at every new blaſt it is renewed againe and refreſhed: otherwiſe it ſparkleth very much and yeeldeth many cinders. But the charcole made of yong trees is the better.
D Now the manner of making them, is this: when the wood is cut into many clefts & ſplents, freſh and green, they are heaped up on high, and hollow, in manner of a furnace or chimney, and then well luted with clay in the top, and all about: which done, the pile of truncheons aforeſaid, is ſet on fire within; and as the outward coat or cruſt of clay beginneth to wax hard, the workemen or colliars pierce it with poles and pearches, and make divers holes therein for vent, and to let out the ſmoakie vapour that doth ſweat and breath from the wood. The worſt of all other for timber or cole, is the oke named Haliphleos; a thicke barke it hath, and as big a bodie, but for the moſt part hollow and light like a ſpunge or muſhrome: and there is not another beſides it of all theſe kind of trees, that rotteth as it ſtands alive. Beſides, ſo unfortunate it is, that the lightning ſmiteth it, as low as it groweth; for none of them ariſeth to any great height: which is the
E cauſe that it is not lawfull to uſe the wood thereof about the burning of any ſacrifice. Seldome beareth it any Acorns, and thoſe few that it hath, be exceeding bitter, ſo as no other beaſt will touch them, but ſwine again; nor they neither, but for pure hunger, when they can meet with no other food. Moreover, in this regard alſo rejected it is, and not emploied in any religious uſe, for that without blowing at the wood and cole thereof continually, it will not burne cleare and conſume the ſacrifice, but goeth out and lieth dead.

But to returne unto our maſt againe: That of the Beech tree feedeth ſwine quickly, maketh their fleſh and lard faire and pleaſant to the eye, tender to be ſoone ſodden or roſted, light and eaſie of digeſtion, and good for the ſtomacke. The maſt of the Holme cauſeth hogs to gather a more faſt and compact fleſh, their bodies to be neat, ſlender, lanke, and ponderous. Acorns doe engender a fleſhie ſubſtance, more ſquare and ſpreading, and the ſame alſo moſt heavy and hardeſt of digeſtion, and yet they are of all other kinds of maſt, moſt ſweet and pleaſant. Next to them in goodneſſe (by the teſtimonie of *Nigidius*) is that of the tree Cerrus, neither is there bred of any other a courſer fleſh, howbeit hard it is, faſt, and tough. As for the maſt of Ilex, hogs are endaungered by eating thereof, unleſſe it be given them warily by little and little. Hee ſaith

moreover, that of all other it falleth laſt. Moreover, the maſt of Eſculus, Robur, and the Corke, cauſeth the fleſh to be ſpungeous and hollow. To conclude, what trees ſoever beare maſt, carrie alſo certaine nuts called Galls: and lightly they are full of maſt but each other yeare. But the oke Hemeris beareth the beſt galls, and fitteſt for the curriours to dreſſe their leather. The broad leafed oke hath a kind of galls like unto it, but lighter in ſubſtance, and not ſo good by far: it carieth alſo blacke galls (for two ſorts there be) and this is better for the dier to colour wooll.

Chap. vii.

Of the Gall-nuts: and how many other things Maſt-trees doe beare beſides Maſt.

THe nuts called Galls, doe ever breake out all at once in a night, and namely about the beginning of Iune, when the ſunne is readie to goe out of the ſigne Gemini. The whiter ſort thereof commeth to the growth in one day: and if in the firſt ſpring and breaking foorth thereof it be hot weather, it drieth and withereth out of hand, and commeth not to the full bigneſſe and perfection, namely to have a kernell as much as a Beane. The blacke of this kind continueth longer freſh and greene, and groweth ſtill, to the bigneſſe otherwhiles of an apple. The beſt Galls be thoſe of Comagena: the worſt is that of the oke called Robur, which are knowne by the holes they have, that may be ſeen through. The common oke Quercus, over and beſides the fruit (which is the maſt) beareth many other things; for it carieth both ſorts of Gall, the black and the white: certaine berries alſo like Mulberries, but that they be drie and hard, reſembling for the moſt part a Bulls head, conteining within them a fruit much like the kernels of the Olive. Moreover, there grow upon it certain little balls not unlike to nuts, having ſoft flox within good to make candle-wieke or matches for lamps; for burn they will without any oile, like as the black Galls. It beareth alſo other little pills or balls good for nothing, covered over with haire, & yet in the ſpring time they yeeld a certain juice or liquor like honey. Furthermore, there breed in the hollow arme-pits (as it were) of the boughs, other ſmall pills ſetled or ſticking cloſe to the wood, and not hanging by any ſteles, which toward the navill or bottome thereof are whitiſh; otherwiſe they be ſpeckled all over with blacke ſpots, ſave that in the mids betweene they are of a ſcarlet red colour: open them, and hollow they are within, but very bitter. Sometimes alſo this Oke engendreth certain hard calloſities, like Pumiſh ſtones; yea and other round balls made of the leaves folded one within another: on the backeſide alſo of the leafe where it is reddiſh, yee ſhall find ſticking certaine wateriſh pearls, white and tranſparant or cleare within, ſo long as they be ſoft and tender; wherein there breed little flies or gnats: howbeit in the end they ripen and wax harder, in manner of Galls.

Chap. viii.

Of the Catkin called Cachrys: the graine of Scarlet: of Agaricke, and Corke.

THe Oke called Robur, bringeth forth likewiſe a certaine pendant chat or catkin, named in Greeke Cachrys: for ſo they tearme the little pill, which is of a burning and cauſticke nature, and whereof there is uſe in Phyſicke for potentiall cauteries. The like groweth upon Firres, Larch trees, Pitch trees, Lindens or Tillets, Nut-trees, and Planes, namely after that the leaves be falne; and abideth upon the tree in winter time. Theſe chats have a kernell within like to thoſe of the Pine-nuts. It beginneth to grow in winter, and by the ſpring time all of it openeth and ſpreadeth to the proofe; but when the leaves begin to bud and put forth, it falleth off. Thus you ſee how fruitfull theſe Okes be, and how many things beſides maſt, they do bring forth. And yet they ceaſe not nor give over thus, for many times a man ſhall ſee certaine excreſcences growing forth about their roots, ſuch as toadſtools and muſhroms; the laſt deviſes that our gluttons have invented to whet their appetite and ſtomacke, and to maintaine gourmandize. The common Oke breedeth the beſt of this kind: as for thoſe that grow about the Oke Robur, the Cypreſſe, and Pine tree, they are hurtfull to be eaten and venomous. Moreover, *Heſiodus* ſaith, that the Okes Robora do beare Miſſelto, and yeeld honey. True it is indeed, that the honey-dews called Manna, falling from heaven (whereof we have ſpoken before) light not upon any other leaves

leaves more than of thoſe Okes. Moreover, this is knowne for certain, that the aſhes of this oke when it is burnt, hath a qualitie or taſt of nitre or ſalt-peter.

Howbeit for all the riches and fruit that the Oke affourdeth, the Scarlet graine alone which commeth of the Ilex, challengeth yea and overmatcheth it. This graine is no other than a verie excrement or ſuperfluitie ariſing about the ſtem of the ſmall ſhrub called Ilex Aquifolia, ſcraped and pared off from it, like ſuch refuſe as they call Cuſculium or Quiſquilium: but of ſuch price it is, that the poore people of Spaine gather it, & make a good part of their revenew thereby, even as much as will pay halfe their tribute. As touching the commendable uſe thereof in dying, wee have ſufficiently ſpoken in the diſcourſe of the purple tincture. This ſcarlet graine is engendred alſo in Galatia, Africa, Piſidia, and Cicilia. But the worſt of all other is that which commeth out of Sardinia.

As for Agaricke, it groweth in Fraunce principally upon trees that beare maſt, in manner of a white muſhrom: of a ſweet ſavor, very effectuall in Phyſicke, and uſed in many Antidotes and ſoveraigne confections. It groweth upon the head and top of trees: it ſhineth in the night, and by the light that it giveth in the darke, men know where and how to gather it.

Of all Maſt-trees, the Oke called by the Greekes Ægylops, beare certaine drie excreſcences ſwelling out like touchwood, covered all over with a hoarie and haitie moſſe, and theſe not onely beare out from the barke of the fruit, but alſo hang downe from the boughs a cubit in length: and odoriferous they are, as we have ſhewed in our treatiſe of Ointments.

Now concerning Corke, the woodie ſubſtance of the tree is very ſmall, the maſt as bad, hollow, ſpongeous, and good for nothing. The barke onely ſerveth for many purpoſes, which will grow again when the tree is barked, and that of ſuch a thicknes, that it will beare ten foot ſquare. Much uſe there is of it in ſhips, & namely for boys to ancre cables; alſo for flotes to trainels or dragnets that fiſhers doe occupie: moreover in bungs and ſtopples of barrels, bottles, and ſuch like veſſels. Finally, our gentlewomen and daintie dames have the ſoles of their pantofles and winter-ſhoes underlaid therewith. In regard of which barke, the Greekes call it by a prety name, and not improperly, The Barke tree, or the tree all barke. Howbeit ſome would have it to be the female Ilex or maſt-Holm, and ſo they name it: and where there groweth no Ilex, in ſtead thereof they take Corke, eſpecially in carpentrie and cart-wrights worke, as about Elis and Lacedæmon. Neither groweth it in all parts of Fraunce, ne yet in any one quarter of Fraunce.

Chap. IX.

What trees they be that carrie barke good for any uſe.

THe paiſants of the countrey and the ruſticall people employ much, the barke alſo of Beeches, Lindens or Tillets, Firres, and Pitch trees: for thereof they make ſundry veſſels, as paniers, baskets, and certain broad and wide hampers for to carrie their corne and grapes in time of harveſt and vintage, yea and otherwhiles they cover their cottages therewith. Moreover, ſpies uſe to write in barkes (when they be freſh and green) intelligences to their captaines; graving and drawing their letters ſo, as that the ſap and juice thereof covereth them. To conclude, the barke of the Beech tree is uſed in certaine religious ceremonies of ſacrifice: but when the tree is ſpoiled of the barke, it ſoone fadeth and dieth.

Chap. X.

Of Shindles: of the Pine tree, the wild Pine, the Firre, Pitch tree, Larch tree, Torch tree, and the Yew.

THe bourds or ſhindles of the wild Oke called Robur, be of all others ſimply the beſt: and next to them, thoſe which are made of other maſt-trees, and eſpecially of the Beech. The ſhindles are moſt eaſily rent or cloven out of all thoſe trees which yeeld Roſin, but ſetting aſide the Pine-wood onely, none of them are laſting. *Cornelius Nepos* writeth, that the houſen in Rome were no otherwiſe covered over head but with ſhindles, untill the warre with K. *Pyrrhus*, to wit, for the ſpace of 470 years after the foundation of the citie. And of a truth, the chiefe quarters of Rome were divided and diſtinctly named by certain woods and groves neare adjoyning. And even at this day there remaineth the quarter of *Iupiter Fagutalis*, where ſometime ſtood a tuft or

grove of Beeches: also the gate Querquetulana, bearing the name of an Oke-tow: likewise the hill Viminalis, from whence they used to fetch windings and bands of osiers: and many other groves, whereof some were set double, and were two of a name. Wee read in the Chronicles, that *Q. Hortensius* Dictator for the time being, (when as the commons arose, and in that mutinie or insurrection forsook the citie and withdrew themselves to the fort Ianiculum) made a law and published it within a certaine grove hard by, called Esculetum, where there grew a number of trees named Esculi, and the said statute ran in this forme, That whatsoever ordinance should be enacted by the same Comminaltie, it should bind all citizens of Rome whomsoever, to observe and keepe.

In those daies the Pine and Firre, and generally all trees that yeeld Pitch, were held for straungers and aliens, because none of them were knowne to grow near unto the citie of Rome: wherof now we will speake, the rather because the beginning and the whole manner of confecting and preserving wines, might be thereby throughly known. First and formost, some of the trees aforesaid in Asia or in the East parts, doe bring forth Pitch. In Europe there be sixe sorts of trees, seeming all of one race, which yeeld the same. Of which, the Pine and the Pinaster carie leaves thin and slender in manner of haires, long also and sharpe pointed at the end. The Pine beareth least Rosin of all others, howbeit otherwise some it hath in the verie fruit thereof, which we call Pine-nuts or apples (whereof we have alreadie written) yet so little it is, that hardly a man would reckon the Pine among those kind of trees that yeeld Rosin. The Pinaster is nothing els but the wild Pine: it groweth wonderfull tall, putting forth armes from the mids of the trunke or bodie upward; whereas the other Pine, brauncheth only in the head: this of the twaine is more plentifull in Rosin, whereof we will speake more anon. These wild Pines grow also upon plains. There be trees upon the coasts of Italie which men call Tibuli, and many think they be the same, although they carie another name: slender they are and shorter, altogither without knots, and little Rosin they have in them or none: but they serve very well for shipwrights to build frigats & brigandins.

The Pitch-tree loveth the mountains and cold grounds: a deadly and mournfull tree it is, for they used in old time to sticke up a braunch thereof at the dores of those houses where a dead corps was, to give knowledge thereof abroad: yea and commonly it grew greene in churchyards and such places where the manner was to burne the bodies of the dead in funerall fires: but now adaies it is planted in courtyards and gardens near our houses, because it may be easily kept with cutting and shredding, it brauncheth so well. This tree putteth forth great abundance of Rosin, with white graines or kernels comming betweene, so like unto Frankincense, that if it be mingled therewith, unneth or hardly a man may discerne the one from the other by the eye. And hereupon it commeth, that druggists and Apothecaries doe sophisticate Frankincense and deceive folke with it. All the sort of these trees are leafed with short, thicke, and hard prickie bristles, in manner of the Cypresse. The Pitch tree beginneth to shoot forth braunches even from the very root almost, and those be but small, bearing out like armes, and sticking one against another in the sides. Semblably do the Fir-trees, which are so much sought for to serve shipping: and yet this tree delighteth in the highest mountains, as if it fled from the sea of purpose, and could not away with it: and surely the forme and manner of growing is all one with the Pitch tree. The wood thereof is principall good timber for beames, and fitteth our turne for many other necessities of this life. Rosin if it be found in the Firre, is thought a fault in the wood, whereas the only commoditie of the Pitch tree, is her Rosin; and yet sometime there frieth and sweateth out a little thereof, in the extreme heat of the sun. The timber of them both is not alike, for that of the Firre is most faire and beautifull; the Pitch tree wood serveth only for cloven lath, or rent shindles, for Coopers to make tubs and barrels, and for some few other thin bourds and painels.

As for the Larch tree, which is the fift kind of those that beare Rosin: like it is to the rest, and loveth to grow in the same places: but the timber is better by ods, for it rotteth not, but will last and endure a long time: the tree will hardly be killed: besides, it is red of color, and carieth an hoter and stronger smell than the other. There issueth forth of the tree as it groweth, good store of liquid Rosin, in colour like to honey, somwhat more clammie, which will never grow to be hard.

A sixt sort there is of these trees, and it is properly called Teda, [*i.* the Torch-tree:] the same yeeldeth more plentie of moisture and liquor than the rest: lower it is of growth than the Pitch-tree, but more liquid and thin: very commendable also to maintain fire at sacrifices, and to burn in torches for to give light. These trees, I meane the male onely, bring forth that strong and stinking

A king roſin, which the Greekes call Syce. Now, if it happen that the Larch tree prove Teda [i. to be Torch-wood] it is a ſigne that it doth putrifie, and is in the way of dying.

The wood of all theſe kinds beforenamed, if it be ſet a fire, maketh an exceeding groſſe and thicke ſmoke, and preſently turneth into a coale, ſpitting and ſparckling a farre off; except that only of the Larch tree, which neither burneth in light flame, nor maketh coale, ne yet conſumeth in the fire no otherwiſe than a very ſtone.

All theſe trees whereof we ſpeake, continue green all the yeare long: and very like they are in leafe, that men otherwiſe of cunning and good experience, have ynough to doe to diſcerne one from the other by it, ſo neare of kin they be, and their race ſo much intermingled. But the Pitch-tree is not ſo tall as the Larch: for the Larch is thicker in bodie, of a thinner and lighter barke,
B more ſhag leaved, and the ſaid leaves fattier, growing thicker, more pliable, & eaſier to wind and bend: whereas the leaves of the Pitch-tree hang thinner, they be of a driet ſubſtance, more ſlender, and ſubject to cold; and in one word, the whole tree is more rough and hideous to ſee to, and withall, full of roſin; the wood alſo reſembleth the Firre, rather than the Larch.

The Larch tree, if it be burnt to the very ſtumpe of the root, will not ſpring againe and put forth new ſhoots: whereas the Pitch tree liveth ſtill for all the fire, and will grow afreſh: the experience whereof was ſeene in the Iſland Lesbos, at what time as the forreſt Pyrrhæum was ſet on fire, and cleane burnt to the ground.

Moreover, every one of theſe kinds differ in the very ſex: for the male of ech kind is ſhorter and harder: the female taller, having fattier leaves, and the ſame ſoft and plain and nothing ſtiffe and
C rugged. The wood of the male, is tough, and when it is wrought, keepeth not a direct graine, but windeth and turneth, ſo that the Carpenter muſt go every way about it both with axe and plain: contrariwiſe, that of the female is more frim and gentle. And commonly the axe or the hatchet will tell the difference of male and female in any tree; for what wood ſoever it be, it will ſoon find and feele the male, for hardly is it able to enter, but either turneth edge or rebounds again: & whether a man hew or cleave withall, it maketh more craſhing and a greater noiſe where it ſetleth and taketh hold; it ſticketh alſo faſter, and with more adoe is plucked forth. Furthermore, the very wood of any male tree, is of a more browne and burnt colour, yea, & the root of a blacker hew.

About the forreſt Ida within the territorie of Troas, there is another diſtinction of trees in the ſame kind: for ſome grow upon the mountaines, others toward the coaſt and the ſea ſide. In Ma-
D cedonie, Arcadia, and about Elis, theſe trees eftſoones change their names: inſomuch, as the Greeke writers are not agreed how to diſtinguiſh their ſeverall ſorts, and to raunge them duly in their kind. For mine owne part, I have ſet them downe diſtinctly according to the judgement of Romane and Latine Authors.

Of all the trees abovenamed, the Firres ſurpaſſe for bigneſſe: and the females are the taller. The timber is more frim and ſoft, more profitable alſo and eaſier to be wrought: the tree it ſelfe rounder, and ſo it brauncheth arch-wiſe: the boughs as they reſemble wings ſtretched out and diſplaied, ſo they ſtand ſo thicke with leaves, that they will beare off a good ſhower, inſomuch, as no raine is able to pierce through. In ſumme, the female Firre is farre more lovely and beautifull every way than the male.

E All the ſort of theſe foreſaid trees, ſave onely the Larch, beare certaine knobs like Catkins or Chats, compoſed (as it were) of many skales wrought one over another, and thoſe hang downe dangling at the braunches. Theſe knobs or clogs of the male Firre, have in the upper end a kernell within: but thoſe of the female have no ſuch thing. Moreover, the Pitch tree as it hath ſuch Catkins leſſe and ſlenderer; ſo all within, from one end to the other, the kernels be paſſing little and blacke withall, like to lice or fleas: which is the reaſon, that the Greekes call it Phthirophoros. The ſaid Catkins of the male Pitch trees are more flat, and nothing ſo round as thoſe of the females, leſſe gummie alſo and not ſo moiſt of the roſin.

To come now to the Yugh, becauſe we would overpaſſe none: it is to ſee to, like the reſt, but
+ that it is not ſo greene; more ſlender alſo and ſmaller, unpleaſant and fearefull to looke upon, as
F a curſed tree, without any liquid ſubſtance at all: and of theſe kind of trees, it alone beareth Berries. The fruit of the male is hurtfull: for the berries in Spaine eſpecially, have in them a deadly poyſon. And found it hath been by experience, that in Fraunce the wine bottles made thereof for wayfaring men and travellers, have poyſoned and killed thoſe that drunke out of them. *Seſtius* ſaith, that the Greekes call it Smilax: and that in Arcadia it is ſo venomous, that whoſoever

take

take either repoſe or repaſt under it, are ſure to die preſently. And hereupon it commeth, that thoſe poyſons wherewith arrow heads be envenomed, after ſome were called in times paſt Taxica, which now wee name Toxica. But to conclude, it is ſeene by good proofe, that if a braſen wedge or ſpike be driven into the very bodie of the tree, it looſeth all the venomous nature, and becommeth harmeleſſe.

Chap. xi.

How to make all kinds of Pitch. The manner how Cedrium is made. Alſo, of thicke pitch, how it is made, and in what ſort Roſin is boiled.

THe liquid Pitch or Tarre throughout all Europe, is boiled out of the Torch tree: and this kind of Pitch ſerveth to calke ſhips withall, and for many other uſes. Now the manner of drawing Tarre out of this tree, is, to cut the wood thereof into peeces, and when they are piled up hollow into an heape, to make a great fire within, as it were under a furnace, being claied without-forth: thus with the heat of the fire it doth frie and ſeeth againe. The firſt liquour that ſweateth and iſſueth forth, runneth cleare as water, in a channell or pipe made for the purpoſe: and this the Syrians call Cedrium: which is of ſuch force and efficacie, that in Ægypt they uſe to embaulme the dead bodies of men and women departed, and keepe them from putrifaction. At the next running it is thicker, and this ſecond liquor is very Pitch. Howbeit, this is caſt again into certain coppers or cauldrons of braſſe, and together with vinegre ſodden a ſecond time, untill it come to a thicke *conſiſtence: and when it is thus thickened, it taketh the name of Brutian Pitch, good onely for tuns, barrels, and other ſuch veſſels. Much like it is to the former Pitch, but that it is more glutinous and clammie, redder alſo of colour, and more fattie. And thus much concerning the Pitch made of the Torch-tree.

*Palimpaſſa, i. Stone-pitch.

As for that which commeth of the Pitch tree, the Roſin thereof is drawn with red hot ſtones in certain veſſels made of ſtrong and thicke Oken plankes: or, in default thereof the wood is cloven into peeces, and piled together, after the order of a charcole hearth, and ſo the pitch boileth foorth. The uſe hereof, when it is beaten into a kind of meale or powder, is to bee put into wine, and it is of a blacker colour than the reſt. The ſame pitch-roſin, if it be boiled more lightly with water, & be let to run through a ſtrainer, commeth to a reddiſh colour, and is glewie: and thereupon it is called Stilled pitch. And for this purpoſe lightly, is ſet by the more groſſe & faultie ſubſtance of the roſin, together with the barke of the tree. But there is another compoſition and manner of making pitch that ſerveth for headie wine, called Crapula. For the flower of the roſin is taken greene and freſh, as it diſtilleth from the tree, together with a good quantitie of ſmall, thinne, and ſhort ſpils or chips of the tree plucked away with the ſame: the ſame are ſhred and minced ſo ſmall, as they may paſſe through a ſieve or a riddle: which done, all is put into ſcalding water, and there boileth untill it be incorporate with the water. The fat ſubſtance that is ſtrained and preſſed from hence, is the excellent pitch-roſin, hard to come by, and not to bee found in Italie, unleſſe it bee in few places under the Alpes; and ſingular good it is in Phyſicke. Now for to make it paſſing white, there muſt bee taken one gallon of the roſin, and ſodden in two gallons of raine water. But ſome thinke it the better way, to ſeeth it a whole day together at a ſoft fire, without any matter at all, in a pan or veſſell of latton. Others there be likewiſe that boile Terpentine in a hote frying pan, and are of opinion, that this is the beſt of all others. And the next to it in goodneſſe, is the Lentiske roſin, called Maſtich.

Chap. xii.

Of the Pitch Zopiſſa, which is ſcraped from ſhips, and of Sapium. Alſo, what trees are in requeſt for their timber.

IT would not bee forgotten, that the Greekes have a certaine Pitch, ſcraped together with waxe from ſhips that have lien at ſea, which they call Zopiſſa (ſo curious are men to make experiments and trie concluſions in every thing:) and this is thought to bee much more effectuall for all matters that pitch and roſin are good for, by reaſon of the faſt temperature that it hath gotten by the ſalt water.

For

For to draw roſin out of the *Pitch-tree, it muſt be opened on the Sun ſide, not by giving a ſlit or gaſh in the barke, but by cutting out a peece therof, ſo that the tree may gape and lie bare two foot at the moſt: and from the earth, this wound to bee at leaſt a cubite. Neither doe they ſpare the entire bodie and wood of the tree, as they doe in the reſt: for there is no daunger thereof, conſidering that the very chips of the wood being cut out, are full of liquor, and doe ſerve to make pitch. But the nearer that the ſaid ouverture or hole is made to the earth, the better is the roſin that iſſueth forth: for if it be higher, it is bitter. When this is done, all the humour afterwards runneth to the ulcer or inciſion aforeſaid, from every part of the tree. The like it doth in the Torch pine. When it hath left running to the firſt hole, there is a ſecond likewiſe made on another ſide, and ſo ſtill is the tree opened every way: untill at length tree and all is hewed down, and the very pith and marrow thereof ſerveth for Torch wood to burne. Semblably, in Syria they uſe to plucke the barke from the Terebinth, yea, and they pill the boughs and roots too for Terpentine, howſoever in other trees the roſin iſſuing out of thoſe parts, is not counted good. In Macedonie the manner is to burne the male Larch, but the roots onely of the female for to draw out pitch. *Theopompus* wrate, that there is found in the territorie of the Apolloniates, a kind of minerall pitch, called Piſcaſphaltum, nothing inferiour in goodneſſe to the Macedonian. *πίτυς.

The beſt pitch in all countries, is that which is gathered from trees, ſtanding upon the North wind, and in places expoſed to the Sunne-ſhine. As for that which commeth from ſhadowie places, it is more unpleaſant to the eie, and carieth beſides a ſtrong and ſtinking ſavour. If it be a cold and hard winter, the pitch then made is the worſe, there is alſo leſſe ſtore of it, and nothing is it ſo well coloured. Some are of opinion, That the pitch iſſueth in more abundance out of trees in the mountaines, alſo that it is better coloured, ſweeter in taſt, more pleaſant alſo in ſmell, namely, while it is raw pitch-roſin, and as it runneth from the tree: but if it be boiled, it yeeldeth leſſe plentie of pitch than that which commeth of trees in the plaine, and runneth all into a thin liquor in manner of whey, yea, & the very trees themſelves are ſmaller. But both the one and the other, as well the mountaine pines and pitch-trees, as thoſe of the plaines, yeeld not ſo much pitch in a faire and drie ſeaſon, as when the weather is rainie and full of clouds. Moreover, ſome there be of theſe trees that yeeld forth fruit (which is their roſin) the very ſame yeare that immediately followeth their inciſion; others, two yeares after; yea, and ſome again in the third yeare. As for the inciſion or open wound that is made, it filleth up with roſin: for neither dooth it ſouder or unite in manner of a skar, ne yet cloſeth the barke againe: for in this tree, being once devided it will never come together and meet.

Among theſe trees, ſome have reckoned one kind by it ſelfe named Sapium, becauſe it is replanted and groweth of ſome of the ſions or imps of the ſaid trees, in manner as hath been ſhewed before in our treatiſe of nut-kernels. The nether parts of which tree they call Tedaſi. Torch-wood:] whereas indeed this tree is no other than the Pitch-tree, brought to a more mild and gentle nature by tranſplanting. As for that which the Latines call Sapinus, it is nothing elſe but the wood or timber of theſe kind of trees, being hewed or cut downe, as we will *hereafter declare in place convenient. *Chap. 39 of this booke.

Chap. xiii.

Of the Aſh, foure kinds thereof.

THere be many trees beſides that Nature hath brought forth, onely for their wood and timber: and among them the Aſh, which of all others, groweth moſt plenteouſly in every place. A tall tree this is, and groweth round, bearing leaves ſet in manner of feathers or wings; much ennobled by the praiſe and commendation that the Poet *Homer* giveth it, as alſo for the ſpeare or launce of *Achilles*, made thereof. And in very truth, the wood ſerveth right well for many uſes. As for the timber of the Aſh, growing upon the forreſt Ida in Troas, it is ſo like the Citron-wood, that when the bark is off, a man may hardly diſcern the one from the other, inſomuch, as the merchants and chapmen are deceived therewith.

The Greekes have made two kinds of the Aſh: the one runneth up tall and even without a knot: the other is lower, more tough and hard, and withall, of a more brown and duskiſh colour: and the leaves reſemble the Lawrell. In Macedonie they have an Aſh, which they call Bumelia, which of all other is the talleſt and biggeſt, the wood wherof is moſt pliable and bending. Others have

have put a difference betweene Ashes, according to the places: for that of the plaine and champion countrey, hath a more curled or frisled graine than the other of the mountaines, but contrariwise, the wood of this is more compact and harder than the other. The leaves of this tree, according to the Greekes, are hurtfull, venomous, and deadly to Horses, Mules, and such labouring garrons; but otherwise to beasts that chew cud, they be harmelesse. Howbeit, in Italie, if horses, &c. doe brouse of the leaves, they take no harme thereby. Moreover, they be excellent good, and nothing so soveraigne can be found against the poyson of serpents, if the juice thereof bee pressed forth, & given to drinke; or to cure old ulcers, if they be applied and laid thereto in manner of a cataplaster: nay, so forcible is their vertue, that a serpent dare not come neare the shaddow of that tree, either morning or evening, notwithstanding at those times it reacheth farthest; you may be sure then they will not approch the tree it selfe, by a great way. And this am I able to deliver by the experience which I have seene, that if a man doe make a round circle with the leaves thereof, and environ therewith a serpent and fire together within, the serpent will chuse rather to goe into the fire, than to flie from it to the leaves of the ash. A wonderfull goodnesse of dame Nature, that the Ash doth bloome and flourish alwaies before that serpents come abroad; and never sheddeth leaves, but continueth green, untill they be retired into their holes, and hidden within the ground.

Chap. XIIII.

Of the Line or Linden tree, two sorts thereof.

GReat difference there is every way between the male and female Linden tree; for, the wood of the male is hard and knottie, of a redder colour also, and more odoriferous than the female. The barke moreover is thicker, and when it is plucked from the tree, it is stiffe, and will not bend. It beareth neither seed nor flower, as the female doth: which also is rounder and bigger in bodie, and the wood is whiter and more faire and beautifull by farre than is the male. A strange thing it is to consider, that there is no living creature in the world will touch the fruit of the Linden tree, and yet the juice both of leafe and barke is sweet ynough. Between the barke and the wood of this tree there bee thin pellicles or skins lying in many folds together, whereof are made bands and cords called Bazen ropes. The finest of these pellicles or membranes served in old time for to make the labels and ribbands belonging to chaplets, and it was reputed a great honour to weare such. The timber of the Linden or Tillet tree will never be worme-eaten.* The tree it selfe is nothing tall, but of a meane height, howbeit the wood is very commodious.

* *Plinie* herein is deceived. For the Line-tree with us, is cõparable to the highest Okes in talnesse.

Chap. XV.

Ten kinds of the Maple tree.

THe Maple in bignesse is much about the Linden tree: the wood of it is very fine and beautifull, in which regard, it may bee raunged in the second place, and next to the very Citron tree. Of Maples there bee many kinds: to wit, the white, and that is exceeding faire and bright indeed, growing about Piemont in Italie, beyond the river Po, and also beyond the Alps, and this is called the French Maple. A second kind there is, which hath a curled graine running to and fro with diverse spots; the more excellent worke whereof, resembling the eies in the Peacockes taile, thereupon tooke also the name. And for this rare and singular wood, the countries of Istria and Rhætia bee cheefe. As for that which hath a thicke and great graine, it is called Crassivenium of the Latines, and is counted to bee of a baser kind. The Greekes distinguish Maples by the diverse places where they grow. For that of the champion or plaine countrey (which they name Glinon) is white, and nothing crisped: contrariwise, the wood of the mountaine Maple is harder and more curled, and namely, the male of that sort, and therefore it is in great request for most exquisite and sumptuous workes. A third sort they name Zygia, which hath a reddish wood, and the same easie to cleave: with a barke of a swert colour, and rough in handling. Others would have it to be no Maple, but rather a tree by it selfe, and in Latine they call it Carpinus.

Chap.

Chap. xvi.

Of the Bosses, Wennes, and Nodosities, called Bruscum and Molluscum: Of the wild Fistick or Bladder nut-tree called Staphylodendron: also, three kinds of the Box-tree.

THe bunch or knurre in the Maple, called Bruscum, is passing faire, but yet that which is named Molluscum, excelleth it. Both the one and the other swell like a wen out of the Maple. As for the Bruscum, it is curled & twined after a more crawling and winding manner: whereas the Molluscum is spread with a more direct and streight course of the graine. And certes, if there might be plankes hereof found, broad ynough to make tables, doubtlesse they would be esteemed and preferred before those of the Citron-wood. But now it serveth only for writing tables, for painels also and thin bords in wainescot work, to set out beds heads and seelings, and such are seldome seene. As for Bruscum, there bee tables made of it, inclining to a blackish colour. Moreover, there be found in Alder trees, such nodosities; but not so good as those, by how much the wood of the Alder it selfe is inferiour to the Maple, for beautie and costlinesse. The male-Maples doe put forth leaves and flourish before the female. Yea, and those which grow upon drie grounds, are ordinarily better esteemed than those of moist and wateriſh places, in like sort as the Ashes.

Beyond the Alpes there is a kind of Bladder nut-tree, whereof the wood is very like unto the white Maple, and the name of it is Staphylodendron. It beareth certaine cods, and within the same, kernels in tast like the Filberd or Hazell-nut.

Now for the Box-tree, the wood thereof is in as great request as the very best: seldome hath it any graine crisped damaske wise, and never but about the root, the which is dudgin and full of worke. For otherwise the grain runneth streight and even without any waving: the wood is sad ynough and weightie: for the hardnesse thereof, and pale yellow colour, much set by and right commendable. As for the tree it selfe, gardeners use to make arbours, borders, and curious works thereof. Three sorts there be of the Box-tree: the first is called the French boxe, it groweth taperwise, sharpe and pointed in the top, and runneth up to a more than ordinarie height. The second is altogether wild, and they name it Oleastrum, good for no use at all; and besides carieth a strong and stinking savor with it. The third is our Italian Boxe, and so called. Of a savage kind I take this to be also: howbeit, by setting and replanting, brought to a gentle nature. This spreadeth and brancheth more broad: and herewith a man shall see the borders and partitions of quarters in a garden, growing thicke and greene all the year long, and kept orderly with cutting and clipping. Great store of Box-trees are to be seene upon the Pyrenæan hils, the Cytorian mountaines, and the whole Berecynthian tract. The thickest and biggest Box-trees be in Corsica, and they beare a lovely and amiable flower, which is the cause, that the honie of that Island is so bitter. There is not a beast that will eat the fruit or graine thereof. The Boxes of Olympus in Macedonie, are more slender than the rest, and but low of growth. This tree loveth cold grounds, yet lying upon the Sunne. The wood is as hard to burne as yron: it will neither flame or burne cleare it selfe, nor serve to make charcole of.

Chap. xvii.

Of the Elme, foure kinds.

BEtween these wild trees abovesaid, and those that beare fruit, the Elme is reckoned of a middle nature, in regard of the wood and timber that it dooth affoord, as also of the friendship and acquaintance that it hath with Vines. The Greekes acknowledge two sorts thereof: namely, the one of the mountaines, which is the taller and bigger: and the other of the plaines and champion; which is the rather more like a shrub, the branches that it shooteth foorth are so small and slender. In Italie men hold the Elmes about Atinum to bee the tallest, and of those they preferre them which grow in drie grounds, and have no water comming to them, before those by river sides. A second sort of them, which are not all out so great, they call the French Elmes. The third kind be Italian Elmes, thicker growne with leaves than the rest, and those proceeding in greater number from one stemme. In the fourth place bee raunged the wild Elmes.

The

The Atinian Elmes aboveſaid beare no Samara (for ſo they call the ſeed or graine of the Elme.) All the kind of them are planted of ſets taken from the roots, whereas others come of ſeeds.

Chap. xviii.

The nature of trees, as touching the place where they grow.

HAving thus diſcourſed in particular of the moſt famous and noble trees that are. I thinke it not amiſſe to ſay ſomewhat of their natures in generall. And firſt to begin with the mountain high countries: the Cedar, the Larch, and the Torch-tree love to grow among the hils; like as all the reſt that engender roſin: ſemblably, the Holly, the Boxe-tree, the Maſt-holme, the Iuniper, the Terebinth, the Poplar, the wild Aſh Ornus, the Cornell tree, and the Carpin. Vpon the great hill Apennine there is a ſhrub named Cotinus, with a red or purple wood, moſt excellent for inlaid workes in Marquettrie. As for Firres, the wild hard Okes (Robora) Cheſtnut-trees, Lindens, Maſt-holmes, and Cornell trees, they can away with hils and valleies indifferently. The Maple, the Aſh, the Servis tree, the Linden and the Cherry-tree, delight in the mountaines neare to waters. Lightly a man ſhall not ſee upon any hill, Plum-trees, Pomgranate trees, wild Olives, Walnut-trees, Mulberrie trees, and Elders. And yet the Cornell tree, the Hazell, the common Oke, the wild Aſh, the Maple, the ordinarie Aſh, the Beech, and the Carpin, are many times found to come downe into the plaines: like as the Elme, the Apple tree, the Peare tree, the Bay tree, the Myrtle, the Bloud ſhrubs, the Holme, and the Broome (which naturally is ſo good for to die clothes) doe as often climbe up the mountaines. The Servis tree gladly groweth in cold places: ſo doth the Birch, and more willingly of the twaine. This is a tree which is meere French, and came firſt out of Fraunce: it ſheweth wonderfull white, and hath as fine and ſmall branches or twigs, which are ſo terrible to the offenders, as wherewith the Magiſtrats rods are made for to execute juſtice. And yet the wood of this tree is paſſing good for hoopes, ſo pliable it is & eaſie to bend: the twigs thereof ſerve alſo for to make paniers and baskets. In France they uſe to boile the wood, and thereof draw a glutinous and clammie ſlime in manner of Bitumen. In the ſame quarters there loveth to grow for companie the white thorn, which in old time they were wont to burne for torches at weddings, and it was thought to be the moſt fortunat and luckie light that could be deviſed, becauſe (as *Maſſurius* doth report) the Romane ſheepheards and heardmen who raviſhed the Sabine maidens, were furniſhed every one with a branch thereof, to make them torches. But now adaies the Carpine and the Hazell are commonly uſed for ſuch nuptiall lights. The Cypreſſe, Walnut, Cheſtnut-trees, and the Laburnum cannot in any wiſe abide waters. This laſt named, is a tree proper unto the Alpes, not commonly knowne: the wood thereof is hard and white: it beareth a bloſſome of a cubite long, but Bees will not ſettle upon it. The plant likewiſe called Iovis Barba, ſo handſome to bee cut in arbours and garden workes, which groweth ſo thicke and round withall, full of leaves, and thoſe of a ſilver colour, hateth waterie places. Contrariwiſe, Willowes, Alders, Poplars, & Oiſiars, and the Privet which is ſo good for to make dice, will not grow well and proſper but in moiſt grounds. Alſo the Vacinia or Whortles, ſet and ſowed in Italie for the fowlers to catch birds withall; but in France for the purple colour, wherewith they uſe to die cloths for their ſervants and ſlaves.

To conclude, this is a generall rule, What trees ſoever will grow indifferently as well upon hils as plaines, ariſe to be taller, bigger, & carie a fairer head to ſee to in the low champion grounds: but timber is better, and carieth a more beautifull graine upon the mountaines, except onely Apple-trees and Pyrries.

Chap. xix.

A diviſion of trees, according to their generall kinds.

MOreover, ſome trees looſe their leaves: others continue alwaies greene. And yet there is another difference of trees before this, and wherupon this dependeth. For trees there be which are altogether wild & ſavage: there be again which are more gentle and civile: and theſe names me thinks are very apt to diſtinguiſh them. Thoſe trees therfore which are ſo kind and familiar unto us, as to ſerve our turns either with their fruit which they bear, or their ſhade which they yeeld, or any other vertue or propertie that they have, may very aptly and fitly be called civile and domeſticall.

Chap.

Chap. xx.

Of trees that never shed their leaves: also of Rhododendron.

AMong these trees and plants which are of the gentle kind, the Olive, the Lawrell, the Date tree, Myrtle, Cypresse, Pines, Ivie, and the Oleander, loose not their leaves. As for the Oleander, although it bee called the Sabine hearb, yet it commeth from the Greekes, as may appeare by the name Rhododendron. Some have called it Nerion, others Rhododaphne: it continueth alwaies green leafed, beareth flowers like roses, and brauncheth very thicke. Hurtfull it is and no better than poison, to Horses, Asses, Mules, Goats, and Sheep, and yet unto man it serveth for a countrepoison, and cureth the venime of serpents.

Chap. xxi.

What trees shed not their leaves at all: which they be that loose them but in part: and in what countries all trees are ever greene.

OF the wild sort, the Firre, the Larch, the wild Pine, the Iuniper, the Gedar, the Terebinth, the Box tree, the mast-Holme, the Holly, the Corke tree, the Yew, and the Tamariske, be greene all the yeare long. Of a middle nature betweene these two kinds abovenamed, are the Adrachne in Greece, and the Arbut or Strawberrie tree in all countries: for these loose the leaves of their water-boughs, but are ever green in the head. Among the shrubs kind also, there is a certaine bramble and Cane or Reed, which is never without leaves. In the territorie of Thurium in Calabria, where sometime stood the city Sybaris, within the prospect from the said cittie, there was one Oke above the rest to be seene, alwaies green and full of leaves, and never began to bud new before midsummer: where by the way, I marveile not a little, that the Greeke writers delivered thus much of that tree in writing, and our countrymen afterwards have not written a word thereof. But true it is, that great power there is in the climat: insomuch as about Memphis in Ægypt, and Elephantine in the territorie Thebais, there is not a tree (not so much as the verie vine) that sheddeth leaves.

Chap. xxii.

The nature of such leaves as fall from trees: and what leaves they be that chaunge colour.

ALl trees without the raunge of those before rehearsed (for to reckon them up by name particularly were a long and tedious peece of worke) doe loose their leaves in winter. And verily this hath been found and observed by experience, that no leaves do fade & wither, but such as be thin, broad, & soft. As for such as fall not from the tree, they be commonly thicke skinned, hard, and narrow: and therefore this is a false principle and position which some hold, That no trees doe shed their leaves which have in them a fattie sap or oleous humiditie: for who could ever perceive any such thing in the mast-Holme? a drier tree there is not, and yet it holdeth alwaies green. *Timæus* (the great Astrologer and Mathematician) is of opinion, that when the sunne is in the signe Scorpio, he causeth leaves to fall, by a certain venomous and poisoned infection of the aire, proceeding from the influence of that maligne constellation. But if that were true, we may well and justly marveile, why the same cause should not be effectuall likewise in all other trees. Moreover, we see that most trees doe let fall their leaves in Autumne: & some are longer ere they shed, and continue greene untill winter bee come. Neither is the timely or slow fall of the leafe long of the early or late budding; for wee see some that burgen and shoot out their spring with the first, and yet with the last shed their leaves and become naked: as namely the Almond trees, Ashes, and Elders. And contrariwise, the Mulberrie tree putteth foorth leaves with the latest, and is one of them that soonest sheddeth them againe. But the cause hereof lyeth much in the nature of the soile: for the trees that grow upon a leane, drie, and hungrie ground, doe sooner cast leafe than others: also old trees become bare before younger: and many of them also loose their leaves ere that their fruit be fully ripe: for in the Fig-tree, that commeth and beareth late, in the winter Pyrrie, and Pomegranate, a man shall see in the latter end

of the yeare, fruit only and no leaves upon the tree. Now as touching those trees that continue ever greene, you must not thinke that they keepe still the same leaves, for as new come, the old wither and fall away: which happeneth commonly in mid-Iune about the summer Sun-stead. For the most part, the leaves in every kind of tree, doe hold one and the same colour, and continue uniforme, save those of the Poplar, Ivie, and Croton, which wee said was called also Cici, [i. Ricinus, or Palma Christi.]

Chap. xxiii.

Three sorts of Poplar: and what leaves they be that chaunge their shape and figure.

OF Poplars, there be found three sundrie kinds, to wit, the white, the black, and that which is named * Lybica, or the Poplar of Guynee: this hath least leaves, and those of all other blackest; but most commendable they are for the frugous meazles (as it were) that come forth thereof. As for the white Poplar leafe, it is of two colours; the upper side is whitish, the nether part greene. Both of it, and of the black Poplar, the leaves when they be young, are as round as if they were drawne with a paire of compasses, like unto those of Croton before-named: but as they grow elder, they run out into certaine angles or corners. Contrariwise, the Ivie leaves, at the first be cornered, and afterwards become round. All Poplar leaves are full of downe: as for the white Poplar (which is fuller of leaves than the rest) the said down flieth away in the aire, like to mossie chats or thistle-downe. The leaves of Pomegranats and Almond trees stand much upon the red colour. But very straunge it is and wonderfull which happeneth to the Elme, Tillet or Linden, the Olive tree, Aspe, and Sallow or Willow: for their leaves after midsummer, turne about upside downe, in such sort, as there is not a more certaine argument that the sunne is entred Cancer, and returneth from the South point or summer Tropicke, than to see those leaves so turned.

* Taken by some, to be our Aspe.

Chap. xxiiii.

What leaves they be that use to turne every yeere. Of Palme or Date tree leaves, how they are to be ordered and used. Also certaine wonderfull observations about leaves.

THere is a certain generall and universall diversitie and difference observed in the very leafe: for commonly the upper side which is from the ground, is of greene grasse colour, more smooth also and polished. The outside or nether part of the leafe, hath in it certain strings, sinewes or veines, brawnes and joynts, bearing out like as in the backe-part of a mans hand: but the inside, cuts or lines, in manner of the palme of ones hand. The leaves of the Olive, are on the upper part whiter, and lesse smooth; and likewise of the Ivie. But the leaves of all trees for the most part, every day doe turne and lie open to the Sunne, as desirous to have the inner side warmed therewith. The outward or nether side toward the ground of all leaves, hath a certaine hoarie downe more or lesse here in Italy, but in other countries so much there is of it, that it serveth the turne for wooll and cotton. In the East parts of the world, they make good cordage and strong ropes of Date tree leaves (as we have said before;) and the same are better, and serve longer within, than without. With us these Date leaves are pulled from the tree in the spring, whiles they be whole and entire; for the better are they which are not cloven or divided. Beeing thus plucked, they are laid a drying within-house foure daies togither: after that, they be spred abroad and displaied open to the sunne, and left without dores to take all weathers both day and night, and to bee bleached, untill they be drie and white: which done, they be slived and slit for cord-worke. But to come againe unto other leaves, the broadest are upon the Figge-tree, the Vine, and the Plane; the narrowest, upon the Myrtle, Pomegranat, and Olive: as for those of the Pine and Cedar, they be hairie. The Holly leaves, and all the kinds of Holme, are set with sharpe pricks. As for the Iuniper, in stead of leafe it hath a very pointed thorne. The Cypresse and Tamariske carrie fleshie leaves: those of the Alder be most thicke of all other. The Reed and the Willow have long leaves: the Date tree hath them double. The leaves of the Peare tree are round, but of the Apple tree pointed; of the Ivie cornered; of the Plane tree divided into certain incisions; of the Pitch tree and the Firre cut in, after the manner of comb-teeth; of the wild

hard

A hard Oke, waved and indented round about the edges; of the brier and bramble, ſharpe like thornes all the skin over. Of ſome, they be ſtinging and biting, as of Nettles: of others, readie to pricke like pins or needles, as of the Pine, the Pitch tree, the Larch, the Firre, the Cedar, and all the ſorts of Holly. The leaves of the Olive tree, and the maſt-Holme, hang by a ſhort ſtele, the Vine leaves by a long. The Poplar or Aſpen leaves doe ſhake and tremble, and they alone keepe a whiſtling and ruſtling noiſe one with another. Moreover, in the very fruit it ſelfe, and namely in a certaine kind of Apples, ye ſhall have ſmall leaves breake out of the very ſides in the mids, in ſome ſingle, in others double and two togither. Furthermore, there bee trees that have their leaves comming forth about their boughs and branches, others at the very end and ſhoot of the twig: as for the wild oke Robur, it putteth leaves forth of the trunke and maine ſtocke. Over and
B beſides, the leaves grow thicker or thinner in ſome than in others; but alwaies the broad and large leaves, are more thin than others. In the Myrtle tree, the leaves grow in order by rankes; thoſe of the Box tree turne hollow; but in the Apple trees they are ſet in no order at all. In Pyries and Apple trees both, yee ſhall ſee ordinarily many leaves put forth at one bud, hanging at one and the ſame taile. The Elme, and the Tree-trifolie, are full of ſmall and little braunches. *Cato* addeth moreover and ſaith, That ſuch as fall from the Poplar or the Oke, may bee given as fodder to beaſts, but he willeth that they be not over drie: and he ſaith expreſſely, that for kine and oxen, Fig leaves, maſt-Holme leaves, and Ivie, are good fodder: yea and ſuch kind of beaſts may well brouſe and feed of Reed leaves and Bay leaves. Finally, the Serviſe tree looſeth her leaves all at once, others ſhed them by little and little one after another. And thus much for the leaves
C of trees.

Chap. xxv.

The order and courſe obſerved in Nature as touching plants and trees, in their conception, flowring, budding, knotting, and fructifying. Alſo in what order they put forth their bloſſoms.

THe manner and order of Nature yeare by yeare, holdeth in this wiſe: firſt, trees and plants doe conceive by the means of the Weſterne wind Favonius, which commonly beginneth to blow about ſixe daies before the Ides of Februarie: for this wind is in ſtead of an huſ-
D band to all things that grow out of the earth, and of it they deſire naturally to be conceived, like as the Mares in Spaine, of which we have written heretofore. This wind is that ſpirit of generation which doth breath life into all the world; which the Latines call thereupon Favonius, *à favendo*, [*i.* of cheriſhing and nouriſhing every thing] as ſome have thought. It bloweth directly from the Æquinoctiall Sun-ſetting, and evermore beginneth the Spring. This time, our ruſticall peaſants call the Seaſoning, when as Nature ſeemeth to goe proud or aſſaut, and is in the rut and furious rage of love, deſirous to conceive by this wind, which indeed doth vivifie and quicken all plants and ſeeds ſowne in the ground. Now all of them conceive not at once, but in ſundrie daies: for ſome are preſently ſped in a moment, like as living creatures: others are not ſo haſtie to conceive, but long it is firſt ere they retaine, and as long againe before their vitall ſeed
E doth put forth; and this is thereupon called their budding time. Now are they ſaid to bring forth and be delivered, when in the Spring they bloome, and that bloſſome breaketh foorth of certaine matrices or ventricles. After this, they become nources all the while they cheriſh & bring up the fruit: and this time alſo the Latins call Germinatio, [*i.* the breeding ſeaſon.] When trees are full of bloſſomes, it is a ſigne that the Spring is at the heigth, and the yeare become new againe. The bloſſome, is the very joy of trees, and therein ſtandeth their chiefe felicitie: then they ſhew themſelves freſh and new, as if they were not the ſame; then be they in their gay coats; then it ſeemeth they ſtrive avie one with another in varietie of colours, which of them ſhould excell and exceed in beautifull hew. But this is not generall, for many of them are denied this pleaſure, and enjoy not this delight; for all trees bloſſome not: ſome are of an heavie and ſad
F countenance, neither cheare they at the comming of this new ſeaſon and gladſome Spring: for the maſt-Holme, the Pitch tree, the Larch, and the Pine, doe not bloome at all, they are not arrayed in their robes, they have not their liveries of divers colours to fore-ſignifie (as meſſengers and vantcourriers) the arrivall of the new yeare, or to welcome and ſolemnize the birth of new fruits. The Figge trees likewiſe both tame and wild, make no ſhew of flowers: for they are

not to soone bloomed (if they bloome at all) but they bring forth their fruit. And a wonderfull thing it is to see what abortive fruit these Figge-trees have, and how it never commeth to ripenesse. Neither doe the Iunipers bloome at all. And yet some writers there be who make two kinds thereof: and they say, that the one doth flower, and beare no fruit: as for the other which doth not blossome, it brings forth fruit upon fruit, and berie upon berie, which hang two yeers upon the tree before they come to maturitie. But this is false, for in verie truth all Iunipers without exception, have evermore a sad looke, and at no time shew merie. And this is the case and condition verily of many a man, whose fortune is never in the flower nor maketh any outward shew to the world. Howbeit there is not a tree but it buddeth, even those that never blossome: And herein the diversitie of the soile is of great power: for in one and the same kind, such as grow in marish grounds, do shoot and spring first; next to them, those of the plains; and last of all they of the woods & forrests. And generally the wild Pyrries growing in woods do bud later than any other. At the first comming of the westerne wind Favonius, the Corneill tree doth bud; next to it, the Bay; and somwhat before mid-march or the spring Æquinoctiall, the Tillet or Linden, and the Maple. The Poplar, Elme, Willow, Alder, and Filberds or Hazell nut trees, bud with the first. The Palme also maketh hast and is loth to come behind. All the rest at the point and prime of the spring, namely the Holly, the Terebinth, the Paliurus, the Cheston, and the Walnut-trees, or Mast-trees. Appletrees are late ere they bud, but the Corke tree longest of any other. Trees there be that put forth bud upon bud, by reason that either the soile is exceeding battill and fat, or else the weather fair and pleasant: and this hapneth more to be seen in the blades of corne. But trees if they happen to be over ranck in new shoots and buds, they wax wearie and grow out of heart.

Ex Theophrast. διὸς βλάστ.

Moreover, some trees there be that naturally doe sprout at other seasons besides the spring, according to the influence of certaine starres, whereof the reason shall be rendered more convenient, in the third booke next ensuing after this. Meanetime this would bee observed, That the winter spring of trees is about the rising of the Ægle-star: the Summer budding at the rising of the Dog-star: and a third, when the star Arcturus is up. And for the latter twaine, some would have them to be common verily to all trees, but most evidently seen, in Fig-trees, Vines, Pomgranate trees: and they yeeld a cause, For that in Thessalie and Macedonie the Fig tree about these times putteth forth most plenteously: & in Ægypt this reason is to be seen most apparantly. As for all other trees, certain it is, that when they begin once to bud, they hold on and shoot forward continually without intermission. The wild Oke, the Fir, and the Larch tree, have their severall shoots in one yeere, and spring at three sundry times, giving over betweene whiles; and therefore they put forth their sprouts between the skales of their barks: a thing usually hapning to all trees in their budding & breeding time; for after they be once conceived, their rind or bark doth burst withall. Now their first budding is in the prime and beginning of the spring, and continueth much about fifteene dayes. They bud a second time in the moneth of May when the sun passeth through the sign Gemini: by which time it is evidently to be seen, how the bud heads that came first, are driven and thrust up higher by those that follow after; and that appeareth more plainly by the encrease of the knots and joynts. As for the third budding, it is very short, namely at * midsommer, and lasteth not above a seven-night: and even then also may a man perceive manifestly by the knots and joynts of the shoots how much they are put forth and grown. The Vine alone shooteth twice, to wit, when she first beginneth to burgen and put forth a grape; and a second time, when she doth forme and digest or concoct the same. As for those trees that blossome not, they have no more to do but only to bring forth their fruit, and so proceed to ripen it. Now there are some trees, which no sooner bud, but they shew also a blossome; and yet as hasty as they be that way, they take their leisure afterwards, and long it is ere their fruit come to be ripe: and such are the Vines. Others againe bee as backward and slow both to bud and blossome; but they make speed to ripen their fruit, as the Mulberie tree, which of civile and domesticall trees, is the last that doth bud, and never before all the cold weather is past; and therefore she is called the wisest tree of all others: but after that she begins once to put forth buds, she dispatcheth her busines out of hand, insomuch as in one night she hath done; and that with such a force, that in the breaking forth a man may evidently heare a noise. Of those trees which do conceive in winter, about the rising of the Ægle-star, (as we have sayd before) the Almond tree is the first that doth blossome in the moneth of Ianuarie, and by March the Almond is ripe. The next that blossome

* *Solstitium.*

A bloſſome after it, be the Peach-plum trees of Armenia, then the Injube trees called Tuberes, and the Abricots. As touching thoſe former, they be meere ſtraungers, but theſe Abricots are forced by Art and induſtrie of man. As for wild and ſavage trees, by courſe of nature the Elder flowreth firſt, and hath of all other moſt plentie of pith or marow within, wheras the male Corneil hath none at all. But of domeſticall and civile trees, the Apple tree beginneth to bloſſome, and ſoone after the Pyrry, Chertie tree, and Plum tree, inſomuch as they ſeeme all to floure togither. Next to them, is the Lawrell; anon after it, the Cypreſſe; and then the Pomegranat, and the Fig tree: Vines and Olive trees doe but then burgen and bud, when thoſe other be in their flowre: for in truth they conceive late, namely, at the riſing of the Vergiliæ or Broodhen; for this is the proper ſtar to the influence whereof theſe trees be ſubject: and it is Iune firſt and the ſummer Sun-ſtead, before the vine doth bloome; and ſo it is with the Olive tree, but that it commeth ſomewhat later. All trees be ſeven daies at the leaſt in their bloſſoming; and ſome are longer ere they give over, but none paſſe a fortnight: and done they have ever by the eigth day before the Ides of Iuly, which are the fore-runners of the Eteſian winds. Finally, ſome trees there are which doe not knit or ſhew their fruit immediatly upon their blooming.

B

Chap. xxvi.

Of the Corneil tree. Alſo, what is the proper time wherein every tree beareth: which trees be they that beare not, and which be reputed unluckie. Alſo of thoſe trees which ſooneſt looſe their fruit. Laſt of all, what trees ſhew fruit before leafe.

C

AS for the Corneil tree, it is about midſummer or the ſummer Sun-ſtead, before it putteth forth any fruit, which at firſt is white, afterwards red as bloud. But the female of this kind beareth after Autumne, ſowre berries, and ſuch as no beaſt will abide to taſt. The wood thereof alſo is ſpungeous, hollow, and good for nothing; whereas that of the male is counted among the hardeſt that be: ſo great difference there is in trees of one and the ſame kind. Moreover, the Terebinth, Maple, and Aſh, yeeld their fruit or ſeed in harveſt time: Walnuts, Apples, and Peares (unleſſe they be ſome winter fruits, or of the haſtie kind) ordinarily are readie to bee gathered in the Autumne. All maſt-trees be later ere they render their fruit, to wit, about the go-

D ing downe of the Vergiliæ or beginning of the winter, ſave onely the Æſculus, which paſſeth not the Autumne. As for certain Apple trees and Peare trees both, as alſo the Corke tree, their fruit is not to be gathered before winter begin. The Firre putteth foorth a bloſſome of a yellow colour like Saffron, about mid-Iune or the ſummer ſun-ſtead; but the Broodhen-ſtarre is downe before the fruit be ripe. The Pine, and Pitch tree, do bud before the Firre ſome fifteen daies, or thereabout; but it is winter firſt, and the foreſaid Vergiliæ or Brood-hen is likewiſe ſet, before their fruit is ripe. Citron trees, Iunipers, and maſt-Holmes, are counted trees that beare all the yeare long, and the old fruits of the former yeare tarieth on the tree untill new come, and they hang both togither. But above all other trees, the Pine is a wonder in nature; for a man ſhall ever find upon it ſome of the fruit readie to be ripe; and ſome againe that will remaine unto the

E next yeare, and the third yeare before it will be readie: and there is not another tree that is more forward and greedie (as it were) to put foorth it ſelfe, and give greater hope of encreaſe, than it doth: for look in what moneth ſoever the Pine-nuts are gathered from the tree, in the very ſame others are in good forwardneſſe of ripening; and in ſuch ſort ſhe ordereth the matter, that every moneth a man ſhall have ripe fruit upon her. Thoſe Pine-apples or nuts which cleave and open upon the tree, bee called Zamiæ; and well may they be ſo named, for unleſſe they be plucked, they hurt and corrupt the reſt. The only trees that beare no fruit at all, that is to ſay, not ſo much as ſeed, are theſe; the Tamariske, good for nothing but to make beeſoms of; the Poplar, Alder, Atinian Elme, and the Alaternus, which hath leaves reſembling the Holme, and partly the Olive. As for ſuch trees which neither at any time are ſet or planted, nor yet beare fruit, they bee holden for unfortunate, accurſed, and condemned, in ſuch ſort, as there is no uſe of them in any ſacrifice or religious ſervice. *Cremutius* writeth, That the (Almond) tree whereon ladie *Phyllis* hanged her ſelfe, had never (after) greene leaves on it. Such trees as yeeld gum, after they have put forth their bud, doe cleave and open: howbeit the gum that iſſueth forth, never commeth to any thickneſſe, untill the fruit thereof be gathered. Young trees commonly beare not, ſo long

as they shoot and grow. The Date tree, the Fig tree, the Almond tree, the Apple tree, and the Pyrrie, doe sooneſt of all other let their fruit fall before it be fully ripe. Semblably, the Pomegranate tree, which is so tender besides, that with every thicke and heavie dew, white frost, and foggie rime, she will be bitten and shed the blossom: which is the cause that folk use to bend the boughs thereof downward to the ground, that both dew and rime may sooner fall off which lighteth upon them, and otherwise would over-load and hurt them. The Pyrrie and the Almond tree cannot abide close and cloudie weather, especially if the wind be Southerly, although no raine doe fall: for in such daies, if they chaunce to blossome, they not only shed their flower, but loose their fruit new knit. But the Sallow or Withie tree, is of all other most tickliſh, & sooneſt doth forgoe the seed or chats that it beareth before it commeth to any ripeneſſe: for which cause, called it is of *Homer* * Loose-fruit, or Spill-fruit. Howbeit the age ensuing (naught as it was) hath interpreted that Epithet of his, in another sense, according to the wicked experience they had of it, whereby it was found, that the seed thereof causeth barrainneſſe in women, and hindreth conception. But in this regard, Nature also hath done well to prevent this mischiefe and inconvenience, in that shee hath not been very carefull to preserve the seed: and yet for the maintenance of the whole kind, shee hath endued it with this gift, To grow very quickly, if a man doe pricke into the ground but a cutting or twig thereof. And yet (by report) there is one Willow in Candie, and namely about the very descent of *Iupiters* cave, which is wont ordinarily to carie the graine or seed thereof untill it be full ripe, and then is it of a rough and writhen shape, of a wooden and hard substance, and withall, of the bigneſſe of a cich peaſe.

* Οδυσ. μ. ὀλεσικαρπος, *Frugiperda.*

Moreover, some trees there be that proove barraine and fruitleſſe by occasion of the imperfection of the soile and territorie where they grow: and namely in the Isle Paros, there is a whole wood or coppise that usually is lopt and cut, but it never beareth any fruit. The Peach trees in the Island Rhodos blossome only, and otherwise are fruitleſſe. Over and besides, this difference of trees (that some be fruitfull and others barrain) ariseth of the sex also; for commonly the males beare not: howsoever some affirme cleane contrarie, and say, They are the male onely which be fruitfull, and the female barraine. Furthermore, it falleth out many times that trees be fruitleſſe, either because they grow too thicke one by another, or els are overcharged and too ranke with boughs and braunches: but of such as doo beare, some bring forth their fruit both at the sides, and also at the very tips and ends of their braunches; as the Peare tree, Pomegranat tree, Figge tree, and Myrtle. As for others, they are of the nature of corne and pulse; for the one groweth in the eare or spike alone, the other by the sides, and not otherwise. The Date tree onely (as hath been said before) conteineth fruit within certain pellicles, and the same hangeth downe in clusters after the manner of grapes. Other trees beare their fruit under the leafe for their safeguard and defence, except the Fig tree, which hath her Figs above the leafe, because it is so large and overshadowie. Moreover, the leafe of the Figge tree commeth forth after the Figge. One notable thing is reported of a kind of Figge trees, in Cilicia, Cyprus, and Hellas, to wit, that they have this propertie singular by themselves, To bring foorth their perfect Figs under leafe, and their greene abortive Figs that come to no proofe, after the leafe. The Figge tree beareth moreover certaine hastie Figs, which the Athenians call Prodromos, *i.* vant-courriers or forerunners, because they be long ripe before others. The Laconian Figge trees bring the faireſt and greateſt Figs.

Chap. xxvii.

Of trees that beare twice and thrice in one yeere. Also what trees sooneſt wax old: and of their ages.

IN the same countries above-named, there be Figge trees also that beare Figges twice in one yeare. And in the Island Cea, the wild Figge trees beare thrice in the same yeare: for the second encrease is put foorth upon the first, and the third upon the second: and by this third fruit, the Figges of the tame Figge tree receive their maturitie by way of caprification: and those wild greene Figgs of theirs come foorth above the leafe. Moreover, there be some Pyrries and Apple trees that bring forth fruit twice in a yeere: as also there bee others of the hastie kind, which beare both Peares and Apples betimes in the yeare. There is a kind of Crab tree also or Wilding, that in like manner beareth twice a yeere; and the latter fruit is ripe presently after

A after the middeſt of September, eſpecially in places lying well upon the Sunne. As touching Vines, there bee of them alſo, that after a ſort beare three times in the yeare, which thereupon men call Inſanas, [*i.* The mad or fooliſh Vines:] for whiles ſome of the grapes bee ripe, others begin to ſwell and waxe big, and a third ſort againe are but then in the flower. *M. Varro* writeth, That in Smyrna by the ſea ſide there was a Vine which bare fruit twice a yeare, as alſo an Apple-tree in the territorie of Conſentia. But this is an ordinarie thing throughout all the countrey about Tacapa in Affrica, and never is it ſeene otherwiſe there, ſo fertile is the ſoile; but thereof will we write more at large hereafter in another place. As for the Cypreſſe trees, they faile not but come with fruit thrice in one yeare: and their Berries bee gathered in Ianuarie, May, and September, and all of a diverſe bigneſſe, one from the other. Over and be-
B ſides, the very trees themſelves are not laden with fruit after one and the ſame manner: for the Arbut or Strawberrie tree is more plenteous in the head, & toward the top: the Oke, the Walnut-tree, Fig-tree (and namely that which beareth the unſavourie great figges Mariſcæ) are more fruitfull beneath. Generally, all trees the elder they are, the ſooner they beare and make more haſt to ripen their fruit; the rather alſo, if they grow in a ground leane and expoſed to the Sun. Contrariwiſe, trees that bee wild are later in bearing than other: and ſome of them never yeeld fruit fully ripe. Moreover, ſuch trees under which the ground is tilled and laid hollow, have their fruit ſooner ripe, and are more fruitfull withall, than thoſe that are neglected and not looked unto. Beſides all this, there is a difference in trees as touching bearing their fruit, according to the age: for the Almond tree and the Pyrrie are moſt fertile when they be old, as alſo Maſt trees, & a cer-
C taine kind of Fig-trees. All others, the younger they are, the more fruitfull they be, howbeit, later it is ere their fruit bee ripe: a thing moſt plainely to bee obſerved in Vines. For the better wine commeth from the elder Vines: but more plentie from the younger. As for the Apple-tree, it becommeth of all other ſooneſt old, and in that age the fruit is nothing ſo good as in youth: for both leſſer be the Apples, and alſo more worme-eaten, inſomuch as the very worms will breed in them upon the tree. The Fig is the fruit alone of all trees, that needeth ſome helpe of *Phyſick to ripen. And this may be noted for a ſtrange and miraculous thing in them, That the latter figs be in more price than the haſtie and early ripe, and that there ſhould bee more reckoning made of prepoſterous and artificiall things beſide the courſe of kind, than of the naturall. Alſo, this is a generall rule, Whatſoever tree is exceeding fruitfull, and beareth moſt, the ſame continueth
D leaſt while, and ſoone waxeth old. Yea, and ſome of them are to be ſeene for to die right out, and that very quickly, becauſe they enjoied ſo favourable a ſeaſon, to cauſe them ſo to ſpend themſelves with bearing; as we may marke moſt eaſily in Vines.

*To wit, by caprification.

Chap. xxviii.

Of the Mulberrie tree.

COntrariwiſe, the Mulberrie tree laſteth long, and is very late ere it ſeemeth old. For why? it is not given greatly to beare fruit, neither is overloden with Mulberries. To conclude, looke what trees have a curled graine in the wood, as the Maple, Date-tree, and Poplar, they continue a long time before they decay. And in one word, ſuch as have their roots digged or delved often and laid bare about, are not long lived, but ſoone age and decay.

Chap. xxix.

Of wild trees.

AS for wild trees, they endure longeſt of all others. And generally, as carefull tending and looking to trees, maketh them more fertile: ſo there is nothing ſooner bringeth age upon them, than fruitfulneſſe and much bearing. Hereupon it is likewiſe, that ſuch trees both bud and alſo bloſſome ſooner than others, yea, and ordinarily their fruit is ripe before the reſt: in regard whereof, they are more ſubject to the injurie of the time and the weather, which cauſeth alſo divers and ſundrie infirmities. Moreover, as wee have ſaid alreadie in the chapter of Maſt-trees, there be many that bring forth fruits of different ſorts: among which may be reckoned the Lawrell, with her variable flowers and Berries growing ſo thicke; and principally the barren of that kind, which beareth nothing elſe, and therefore is eſteemed of ſome the male. The Hazels alſo

so and Filbard trees, besides, their nuts doe carie certaine chats with a callous substance of skales joined one within another, but good for nothing.

Chap. xxx.

Of the Box-tree: the Greeke Beane or the Lotus.

All this *Theophrastus* reporteth of Ilex, and not of Buxus.

AMong these is to bee raunged the Box-tree, which bringeth forth the most varietie of all others. For it putteth forth a seed of her owne, also, a graine which they call Carthegon: besides, on the North side Misselto, and on the South Hyphear: whereof wee will write anone more at large: so that otherwhiles a man shall find foure divers things upon the Boxe all together.

Moreover of trees, some be simple or single, to wit, such as from the root have one trunke or bodie, and no more, and yet many boughes and braunches; as the Olive, Fig-tree, and the Vine: others be of a shrubs kind, and put forth many shoots from the root besides the maine trunke, as the Rhamne-thorne Paliurus, and the Myrtle. In like manner the Hazell nut-tree. Howbeit, the better is the tree and more plenteous in fruit, when it is well braunched from the bodie, and hath not those suckers from the root. Yee shall find some againe have no principall stocke at all, as we may see in a kind of Boxe, and a certaine Lotus beyond sea. Others beforked in twain, yea, in five, immediately from the root: and yee shall meet with those that put up many trunkes out of the earth, but braunch not into boughes, as namely, the Elders; as also with others that forke not, nor are devided at all, howbeit, they be full of armes and boughes, as the Pitch-trees. Moreover, some there be which have their boughs disposed in good order, as the Pitch-tree, Firre, or Deale: others againe be as disorderly, as the Oke, Apple-tree, and Pyrrie. As for the Firre verily, where it is devided into boughs, they grow directly upright unto heaven, & spread not in breadth about the sides. But a strange and wonderous thing it is of this tree, that if it bee headed, or the tops onely of those armes cut off, the whole dieth thereupon: but if they bee lopped off close to the bodie, it continueth still alive. Nay, in case it be cut under the place where the braunches put forth, the stocke or stumpe that is left, will take no harme by it, but remaine and live: crop the head onely thereof, and the whole tree dieth. To proceed, some trees spread into armes immediately from the root, as the Elme, others branch onely toward the top, as the Pine, and the Greek Beane, which at Rome for the pleasant tast of the fruit, resembling cherries very much, although K it be of a wild nature, they call Lotus. This tree is much planted about faire houses, in the court yards, especially because the boughs spread so large; for albeit the stock or bodie it selfe bee but very short and small, yet it brancheth so, as that it yeeldeth much shade: yea, and oftentimes the boughs reach to the neighbour housen. But there is not a tree againe that maintaineth this shade a lesse while: for when Winter is once come, the leaves shed, and then it admitteth the warme Sunne for it. Moreover, there is not another tree that beareth a fairer barke, nor more pleasant to the eie, nor that carieth either longer boughs, and more in number than it, or stronger: a man that seeth them, would say they were so many trees by themselves. As touching the use and commodities of this tree, the barke serveth to colour skins and leather: the root to die wooll. And as for the fruit or Apples that it beareth, they are a speciall kind by themselves: for all L the world they resemble the snouts or muzzles of wild beasts, and many of the smaller sort seeme to hang to one that is bigger than the rest.

As concerning boughs of trees, some are tearmed blind, because they put not forth certaine eies or chits where they should bud: which happeneth sometime by a naturall defect, when they are not of validitie to thrust out a bud; otherwhiles it is occasioned by some wrong and injurie done, namely, when they be cut off, and in the place of the cut, there groweth as it were a callous skar that dulleth the vertue of the tree. Furthermore, looke what is the nature that forked trees have in their boughs, the same hath the Vine in her eies and burgeons; the same also have canes and reeds in their joints and knots. Over and besides, all trees toward their root, and the neerest to the ground, are thicker than elsewhere. Some run up altogether in height, and therein shew M their growth, as the Firre or Deale tree, the Larch, Date-tree, Cypresse, Elme, and generally all that rise up in one entire stocke, and are not devided. Of those also that branch and put out many boughes, there is a kind of Cherry-tree that is found to beare armes like beames fortie cubites long, and two foot in thickenesse square throughout the whole length.

Chap.

Chap. xxxi.

Of the Boughs, Barke, and Roots of trees.

THere are trees, that immediatly from the root thruſt out boughs and branches, as doe the Apple-trees. Some be covered with a thin rind, as the Lawrell and Line-tree : others with a thicke barke, as the Okes. In ſome a man ſhall find the barke even and ſmooth, as in the Apple-tree and Fig-tree: the ſame in others is rough and rugged, as is to bee ſeene in Okes and Date-trees. And ordinarily, all old trees have more riveled barkes and furrowed, than the younger. In many trees, the Barke naturally dooth breake and cleave of the owne accord, and namely in the Vine. From ſome it ſhaleth and falleth off, as from the Apple-tree and the Arbut. The Corke and the Poplar have a fleſhie and pulpous barke: the rind of the Vine and the reed, is made in manner of a membrane or thin skin. In Chery-trees it is as ſlender as Paper, and runneth into rolls: but Vines, Lindens, and Firs, are clad with tunicles and coats of many folds. In ſome again the rind is but ſingle, as in the Fig-tree, and the cane or reed. And thus much of Barke.

There is as great difference in the root. For the Fig-tree, the Oke, and the Plane, have great ſtore of roots and large ſpurns: contrariwiſe, in the Apple-tree they are ſhort and ſmall. The Fir and Larch have one tap root and no more : for upon that one maine maiſter-root they reſt and are founded; howbeit, many ſmall ſtrings and petie ſpurns ſhoot out of the ſides. In the Bay-tree the roots be more groſſe and unequally emboſſed, & likewiſe in the Olive, which alſo ſpreadeth out into many branches. But thoſe of the Oke bee of a carnous ſubſtance: and verily, all the kind of Okes doe root deepe into the ground. Certes, if wee give credite to *Virgill*, that ſort of them which are called Eſculi, goe down as deepe into the earth with their roots, as they ariſe & mount above ground with their heads. The roots of the Apple-tree, Olive, and Cypreſſe, lie very ebbe, and creepe hard under the ſourd of the ground. Moreover, there bee roots that runne direct and ſtreight, as thoſe of the Bay and Olive: there be againe that wind and turne as they goe, as thoſe of the Fig-tree. Some are all overgrowne and full of hairie ſtrings, as the Firre root, and many others of wild trees that grow in forreſts: from which the mountainers uſe to plucke thoſe fine fibres and ſmall threds, wherwith they twiſt goodly faire paniers, covers for flaggons and bottels, and worke many other veſſels and pretie deviſes. Some* writers hold opinion and have put down in their bookes, that no roots goe lower into the earth, than that the Sunnes heat may pierce unto them and give them a kind warmth; the which is more or leſſe, ſay they, according to the nature of the ſoile, as it is either lighter and leane, or maſſier, richer, and faſter compact. But I take this to be a meere untruth. This is certaine that wee find in auncient writers, that a young Firre, when it was to be tranſplanted and ſet againe, had a root that went eight cubits within the earth; and yet it was not digged up all whole, but broken in the taking up, and left ſomewhat behind. The roots of Citron trees are biggeſt of all other, and ſpread moſt. Next to them are thoſe of the Planes, Okes, and other Maſt-trees. Some trees there be, the roots whereof like better and live longer, the more ebbe that they lie within the upper face of the ground, and namely, Lawrels; and therefore they ſpring freſh againe, and put forth better, when the old ſtocke is withered and cut away. Others hold, that trees which have ſhort ſtumped roots, doe ſooner decay, & live leſſe while. But deceived they are, and may bee reproved by the inſtance of Fig-trees, which live leaſt while, and yet their roots are longeſt of any other. I ſuppoſe this alſo to bee as falſe, which ſome have held and delivered in writing, That the roots doe diminiſh and decay, as the trees doe wax old: for the contrarie hath been ſeene by an aged Oke, which by the violent force of a tempeſt was overthrowne, the root whereof tooke up a good acre of ground in compaſſe.

* namely, *Theophraſtus.*

Moreover, a common thing it is and ordinarie, to replant and recover many trees that have been blowne downe and laid along: for they will rejoine, knit againe, and revive, by meanes of the earth, even as a wound doth unite by the ſolder of a callous cicatrice. And this is a moſt uſuall and familiar practiſe obſerved in the Planes, which by reaſon of their great heads ſo thicke of boughs, gather winds moſt, and are ſooneſt ſubject to their rage : if any one of them by that meanes bee fallen, they lop their boughs, and diſcharge them of their weightie load, and then ſet them upright againe in their owne place, as it were in a ſocket, and they will take root and proſper. And in good faith, this hath been done heretofore alreadie in Walnut trees, Olives, and many other, to the like proofe.

Chap.

Chap. xxxii.

Of certaine prodigious trees, and presages observed by them. By what meanes trees grow of their owne accord. That all plants grow not every where: and what trees they be that are appropriate to certaine regions, and are not elsewhere to be found.

WE read in Chronicles and records, that many trees have fallen without wind and tempest, or any other apparent cause, but onely by way of prodigie and presage of some future event: and the same have risen againe of themselves without mans helpe. This happened during the warres against the Cymbrians, to the great astonishment of the people of Rome, who thereupon gathered a fore-tokening of great consequence: for at Nuceria in the grove of *Iuno*, there was an old Elme fell, and after the head was lopped off, because it light upon the very altar of *Iuno*, it arose of it owne accord; and that which more is, immediately upon it put forth blossomes and flourished. And this was observed, That from that very instant, the majestie of the people of Rome began to take heart, revive, and rise againe, which had been decaied and enfeebled by so many and so great losses that the Romanes had received. The like chanced (by report) neare the citie Philippi, unto a Willow tree which was fallen downe, and the head of it cut off cleane: semblably, to an Aspen tree at Stagyræ, neare unto the colledge or publick place of Exercise there. And all these were fortunate presages of good lucke. But the greatest wonder of all other was this, of a Plane-tree in the Isle Antandros, which was not onely fallen, but also hewed and squared on all sides by the Carpenter; and yet it rose againe by it selfe, and recovered the former greenenesse and lived, notwithstanding it bare fifteene cubits in length, and foure elns in thicknesse or compasse.

All trees that we are beholden unto the goodnesse of Nature for, wee have by three meanes: For either they grow of their own accord, or come of seed, or else by some shoot springing from the root. As for such as we enjoy by the art and industrie of men, there bee a great number more of devises to that effect: whereof wee will speake apart in a severall booke for that purpose. For the present our treatise is of trees that grow in Natures garden onely, wherein shee hath shewed her selfe many waies after a wonderfull manner, right memorable.

First and formost, as we have shewed and declared before, every thing will not grow in every place indifferently: neither if they bee transplanted, will they live. This happeneth sometimes upon a disdaine, otherwhiles upon a peevish frowardnesse and contumacie, but oftener by occasion of imbecilitie and feebleneſſe of the very things that are remooved and translated: nay, one while the climate is against it, and envious; otherwhiles the soile is contrarie thereunto. The Baulme tree can abide no other place but Iurie. The Assyrian Pome-Citron tree will not beare elsewhere than in Syria. As for the Date-tree, it scornes to grow under all climates: or, if it bee brought to that passe by transplanting, it refuseth to beare fruit. But say, that it fortune by some meanes, that she giveth some shew and apparence of fruit, shee is not so kind as to nourish and reare up to perfection, that which she brought forth, forced against her will. The Cinnamon shrub hath no power and strength to endure either the aire or earth of Syria, notwithstanding it be a neare neighbour to the naturall region of her nativitie. The daintie plants of Amomum or Spikenard, may not away with Arabia, albeit they be brought out of India thither by sea: for king *Seleucus* made triall thereof: so strange they are to live in any other countrey but their own. Certainely, this is a most wonderfull thing to bee noted, That many times the trees for their part may be entreated to remove into a forraine countrey, and there to live; yea, and otherwhiles the ground and soile may bee perswaded and brought to accord so well with plants (bee they never such strangers) that it will feed and nourish them; but unpossible it is to bring the temperature of the aire, and the climate, to condiscend thereto and bee favourable unto them. The Pepper-trees live in Italie; the shrub of Casia or the Canell likewise in the Northerly regions; the Frankincense tree also hath been knowne to live in Lydia: but where were the hote gleames of the Sunne to be found in those regions, either to drie up the watterish humor of the one, or to concoct and thicken the gumme and rosin of the other? Moreover, there is another marvell in Nature, welneere as great as that, namely, that she should so change and alter in those same places, and yet exercise her vertues and operations otherwhiles againe, as if there were no change nor alte-

alteration in her. She hath assigned the Cedar tree unto hote countries: and yet we set it to grow in the mountaines of Lycia and Phrygia both. Shee hath so appointed and ordained, that cold places should be hurtfull and contrarie to Bay-trees, howbeit, there is not a tree prospereth better, nor groweth in more plentie upon the cold hill Olympus, than it. About the streights of the Cimmerian Bosphorus, and namely, in the cittie Panticapæum, both king *Mithridates*, and also the inhabitants of those quarters, used all meanes possible to have the Lawrell and the Myrtle there to grow, onely to serve their turnes when they should sacrifice to the gods: it would never be, did they what they could: and yet even then, there were good store of trees there growing of a warme temperature; there were Pomgranates and Fig-trees plentie; and now adaies there bee Apple-trees and Pyrries in those parts, of the best and daintiest sort. Contrariwise, yee shall not find in all that tract any trees of a cold nature, as Pines, Pitch-trees, and Firres. But what need I to goe as farre as to Pontus for to averre and make good my word? Goe no farther than Rome, hardly and with much adoe will any Chestnut or Cherie-trees grow neare unto it, no more than Peach-trees about the territorie of Thusculum. And worke ynough there is to make Hazels and Filbards to like there: turne but to Tarracina thereby, yee shall meet with whole woods full of Nut-trees.

Chap. xxxiii.

Of the Cypresse tree: That oftentimes some new plants doe grow out of the ground, which were never knowne to be there before time.

THe Cypresse hath beene counted a meere stranger in Italie, and most unwilling there to grow, as wee may see in the workes of *Cato*, who hath spent more words, and made oftener mention of the Cypresse alone, than of all other trees whatsoever. Much ado there is with it before it come up; and as hard it is to grow, and when all is done, the frut is good for nothing. The Berries that it beareth, bee wrinckled, and nothing lovely to the eie; the leaves wherewith it is clad, bitter in tast; a strong and violent smell it hath with it; not so much as the very shade thereof is delectable and pleasant; and the wood but small & not solide, but of an hollow substance; insomuch, as a man may raunge it among the kinds of shrubs. Consecrated is this tree to *Pluto*; and therefore men use to set a bough thereof as a signe, before those houses wherein a dead corpes lieth under bourd. As touching the female Cypresse, it is long ere she beareth. The Cypresse tree for all this, in the end growing up to a pyramidall form sharpe pointed, is not rejected but much set by, if it were for nothing else but to stand betweene every row and ranke of Pine-trees: howbeit, now adaies it is ordered with cutting and clipping for to grow thicke in borders about garden quarters along the allies, also to climbe upon walls in manner of seeling: and being thus kept downe, it is by this meanes alwaies small and tender. Moreover, thereof are drawne many vinets and borders about storie-workes in colours: for so fine is the leafe, so short & greene withall, that it may be brought in a traile to wind about pictures either of hounds and hunters, or of ships and sailers, or any counterfets and images whatsoever, most daintily.

Two sorts there are of the Cypresse tree. First, that which runneth up into a pyramidall point, winding upward as a round spire, which also is called the female. As for the male, it sendeth out braunches, and spreadeth broad: it is lopped also, and serveth in frames to beare up Vines. Both the one and the other is suffered to grow for perches, railes, and plankes, to be made of their boughs when they are cut. Once in thirteene yeares there is made a fall, and not one of those but are sold for a Romane denier apeece. A wood thereof planted in this manner, is of all others most gainefull, and yeeldeth greatest profite: insomuch, as in old time they were wont commonly to say, That one fall of such Cypresse poles would yeeld a man a portion sufficient to give with his daughter in mariage.

The Island Candie is the naturall countrey of the Cypresse tree, howsoever *Cato* hath called it a Tarentine tree: haply, because it came thither first. In the Isle Ænaria, the Cypresse trees spring againe after they bee cut downe to the roots. But in Candie, looke what ground soever a man doth breake up and plough, unlesse he sow or set it with some other thing, Cypresses will come up, and presently shew above ground. In many places also of that Isle, they spring and grow of themselves, even in ground otherwise untilled; and principally in the mountaines of Ida; and those which they call the white Hils: upon the very crests and tops whereof, which are

alwaies

alwaies covered with snow, they are to be seen in greatest plentie. A wonderfull thing, considering that in all other places they love warmth, and without it, will not grow: and besides, when they have met with a familiar ground unto them, yet they care not much for it, but disdaine so kind a nource: whereby a man may see, that not onely the nature of the soile, and the ordinarie power of the climat serveth much for these plants, but also certaine sodaine and temporarie impressions of the aire doe wonderfully worke in this case: for some showers there bee, that oftentimes doe bring seeds with them and engender plants. The same rains do fall sometime after one certaine manner; otherwhiles also in such straunge sort, as men are able to give no reason thereof: A thing that befell to the countrey about Cyrene in Barbarie, at what time as the hearb Laserpitium (which beareth the gum Benjoine) grew there first: as hereafter we will write more at large in our treatise of Hearbs. Moreover, about the 430 yeare after the foundation of Rome citie, there sprung up a very forest or wood neare unto the same citie, by reason of a certaine thicke and glutinous showre like to Pitch, that then fell.

Chap. xxxiiii.

Of Ivie.

It is said, that now the Ivie tree groweth also in Asia: and yet *Theophrastus* in his time delivered the contrarie, and affirmed, That neither it was to bee found there, nor yet throughout all India, but only upon the mount Merus. Over & besides, it is reported, that *Harpalus* did what he could to store the countrey of Media therewith, but all in vaine. And as for *Alexander* the Great, when he returned from out of India with victorie, for the rareneſſe therof he would have all his souldiours go in a sumptuous shew, wearing chaplets therof upon their heads; resembling herein prince *Bacchus*, in solemnities and high feasts of which god, the people of Thracia even at this day are furnished from this tree, and doe with Ivie set out and garnish the heads of their launces, pikes, and javelins, their mourrons also and targuets.

An enemie is Ivie doubtlesse to trees, and generally to all plants and sets whatsoever: it cleaveth and breaketh sepulchres built of stone, it undermineth citie walls; good only to harbour serpents, and most comfortable for their cold complexions: so that I cannot chuse but marveile much that it should bee honoured at all, and accounted of any worth. But to enter into a more particular consideration and discourse of Ivie, two principall kinds are found thereof, like as of all other trees, to wit, the male and the female. The male is described to bee a more massive and greater bodie, to be clad with a harder and fattier leafe, and to shew a flower inclining to purple: and yet the flower of them both, the male as well as the female, doth resemble that of the wild Rose or Eglantine, save that it hath no smell at all. These generall kinds containe each of them three particular sorts: for there is the black & the white Ivie, & a third besides named Helix. And yet we must admit other subdivisions of these also: for of the white, there is one sort that beareth white fruit onely, and another that hath white leaves withall: moreover, of such as carrie only white fruit, one kind hath big beries growing thicke togither, and bunching round in manner of grapes, which clusters be called of the Greeks and Latins Coryuti. A second sort there is of the white Ivie, named Selenitium, which beareth smaller beries, and those not so close set and thicke couched togither. Semblably, it is to be said of the black: for there is an Ivie that beareth also a blacke graine or seed: another with a fruit of a Saffron colour; and hereof are the guirlands made which Poets weare: some call it Nysia, others Bacchica: the leaves of it are not altogither so blacke, but it beareth the greatest bunches and biggest beries of all the blacke kind. And verily of this Ivie there be some Greeke writers that make two sorts, according to the divers colours of the beries: for, the one they call Erythranus, [*i.* the Red;] the other Chrysocarpos, as one would say, the golden-berry Ivie. Now as touching the rampant or climbing Ivie, Helix, there be many and sundrie sorts thereof, differing in their leafe especially: for first and foremost the leaves of this Ivie are small, cornered, and better fashioned than the rest, which in deed are but of a plaine and simple making. There is a difference likewise in the length betweene every knot and joynt, but especially in this, that it is barrain and beareth no fruit at all. And yet some there be, who attribute that to the age, and not to a severall kind of Ivie by it selfe; saying, That the same which at first was Helix, and clasped trees, in tract of time chaunged the leafe and became a very Ivie tree: but foully they are deceived, and disprooved plainly they may be by this,

That

That of the ſaid claſping Ivie Helix, there be many kinds, and three principall above the reſt. The firſt, of graſſe greene colour, which groweth moſt common: the ſecond, with a white leafe: and the third, called alſo the Thracian Ivie, which hath leaves of divers colours. The foreſaid greene Ivie is fuller of leaves, and thoſe finer and ſet in better order than others; wheras the contratie is to be ſeene in the white kind: alſo in the third ſort with varietie of colours, ſome have ſmaller and thinner leaves, couched likewiſe in good order, and thicker growing; whereas in the middle kind, no ſuch thing may be obſerved. Over and beſides, the leaves of Ivie are bigger or leſſe, ſpotted alſo and marked; in which regard one differeth from another. Among the white Ivies, ſome bee whiter than other. The greene Ivie, groweth moſt of all others in length: the white killeth trees, for by ſucking and ſoking all the ſap and moiſture out of them, it feedeth and thriveth ſo well it ſelfe, that it becommeth in the end as big as a tree. A man may know an Ivie being come to his perfection, by theſe ſignes: The leaves are very big and large withall; the tree putteth foorth young ſhoots ſtraight, whereas in others they be crooked and bend inward: the berries alſo ſtand in their cluſters directly upright. Moreover, whereas the branches of all other Ivies be made like unto roots, this hath boughs ſtrong and ſturdie above the reſt; and next unto it, the blacke kind: howbeit this propertie hath the white Ivie by it ſelfe, That amid the leaves it putteth forth armes that claſpe and embrace the tree round on every ſide: which it doth upon walls likewiſe, although it cannot ſo well compaſſe them. And hereupon it is, that although it be cut aſunder in many places, yet it continueth and liveth ſtill: and looke how many ſuch armes it hath, ſo many heads likewiſe of roots are to be ſeene, whereby it maintaineth it ſelfe ſafe and ſound; and is beſides of that force, as to ſucke and choke the trees that it claſpeth. Furthermore, there is gteat diverſitie in the fruit, as well of the white as the blacke Ivie. As for the reſt, the berries of them are ſo exceeding bitter, as no bird will touch them. And yet there is one kind more of Ivie, which is very ſtiffe and ſtandeth alone of it ſelfe without any prop to beare it up: & this of all others only, is thereupon called Ciſſos, or Ivie in deed. Contrariwiſe, Chamæciſſos, [*id eſt*, ground-Ivie] is never knowne but to creepe along the ground.

Chap. XXXV.

Of the Bind-weed or Ivie called Smilax.

Like unto Ivie, is that plant which they call Smilax, or rough Bind-weed. It came firſt out of Cilicia, howbeit more commonly it is to be ſeene in Greece: it putteth forth ſtalkes ſet thicke with joynts or knots, and thoſe thruſt out many thornie braunches. The leafe reſembleth Ivie, and the ſame is ſmall, and nothing cornered: from a little ſtele that it hath, it ſendeth forth certain pretie tendrils to claſpe and wind about: the flower is white, and ſmelleth like to a Lillie: it beareth cluſters comming nearer to thoſe grapes of the wild vine Labruſca, than to the berries of Ivie; red of colour, whereof the bigger containe within them three kernels or pepins apeece, the ſmaller but one, and thoſe be hard and blacke withall. This Smilax is not uſed in any ſacrifices or divine ſeruice of the gods, nor ſerveth for guirlands and chaplets; for that it is held to be dolefull and ominous, or of an unluckie preſage, by occaſion of a certaine young ladie or damſell of that name, who for the love of the young gallant and knight *Crocus*, was turned into this ſhrub or plant, retaining ſtill her name: which the ignorant people not knowing, but taking it for a kind of Ivie, ſticke not to make coronets thereof; profaning by that meanes many times their high feaſts and ſacred ſolemnities: and yet who woteth not with what chaplets Poëts are crowned, and what guirlands prince *Bacchus* or *Silenus* uſed to weare? Of this Smilax are made certain manuell writing-tables. And this propertie moreover hath the wood thereof, That if a man hold it cloſe to his eare, he ſhall heare it to give a pretie ſound.

But to returne againe to the Ivie indeed, it hath (by report) a ſtraunge and wonderfull vertue to trie wines, whether they bee delaied with water or no: for make a cup of Ivie wood, and put wine thereinto, all the wine will ſoke and run through, but the water (if any be mingled therwith) will tarie behind.

Chap. XXXVI.

Of Reeds, Canes, and other water ſhrubs.

IN this diſcourſe as touching plants that love cold places, it will not be amiſſe to treat of thoſe that grow in waters. Among which, the Reeds and Canes may bee raunged in the firſt place:

* for Arrowes and Darts.
* for Writing-pens.
* for Flutes and Pipes.

for necessarie they bee in time both of * warre and * peace: they have their use besides, and are accepted among the *delightsome pleasures of this world. Moreover, in the Northern regions, the people use therewith to cover and thatch their houses: and this kind of rouse will last many ages, if it be laid with a thicke coat, even upon high and stately houses. In other parts also of the world, they are woont with it to make their arch-rouses, and hanging floores of most slight worke. As for Canes particularly, and those of Ægypt by name, which have a certaine resemblance of the Papyr reed in Nilus, they serve for writing-paper. Howbeit those of Gnidos, and which grow in Asia along the lake or meere of Anaia, be held for the best. As for ours here in Italy, they are of a more spungeous substance and gristly matter, apt to sucke and drinke up any liquor. The same within-forth is full of holes and concavities, but converted aloft into a fine woodie rind, and in time becommeth drie, fast, and hard. Apt it is to cleave, and the clifts evermore carie with them a very sharpe edge; and besides, it is full of joynts. Now this woodie substance being thus distinctly parted by knots, runneth alwaies even and smooth, growing smaller and smaller untill it proove sharpe pointed in the top; with a head consisting of a good thicke downe or plume, which serveth also to right good purposes: for either in stead of feathers they use to stuffe beds therewith in common Innes; or when it is growne hard and hath a slimie callositie about it, they in Picardie and those nether-lands doe stampe it, and therewith calfret or calke the joynts of their ships, betweene the ribs and plankes: and herein it hath no fellow, for it taketh faster hold than any glew, and for filling up any rifts and chinkes, no solder so strong, no pitch so sure and trustie. Of Reeds, the Easterlings make their shafts; and archers they be that fight their battailes and determine all quarels. These shafts they arme with sharpe barbed arrow heads in manner of fish-hookes, which wound with a mischiefe, because they cannot be drawne out of the bodie againe: and to make these arrowes flie the faster and kill more presently, they set feathers unto them. Now say that a shaft be broken as it is set fast in the bodie, that end without the flesh will serve againe to be shot: and so inured are the people in those parts to these kind of weapons, so practised withall in discharging of them so nimbly, that a man seeing how thick the shafts flie in the aire, would say they were a cloud of arrowes that shadowed the very sunne. And therefore when they goe to battaile, they wish ever for faire weather and Sunne-shine dayes. Winds and raine, as most adverse unto their warres, they cannot abide: then are they quiet and rest in peace, full sore against their wills, because their weapons at such a time will not serve their turne. Certes if a man would fall to an exact reckoning and æstimate of Æthyopians, Ægyptians, Arabians, Indians, Scythians, and Bactrians, of so many nations also of the Sarmatians, and other East countries, togither with all the kingdomes of the Parthians, hee should find, that the one moietie or halfe of the world hath been vanquished and conquered by the meanes of arrowes and darts, made of Reeds. The Candiots above all others, were so readie and perfect in this kind of feat, that the overweening of their owne skill, and the confidence which they had in this manner of service, made them too bold, and was in the end their owne overthrow. But herein also, as in all other things else whatsoever, Italie hath carried the name, and woon the prize: for there is not a better Reed growing for to make shafts, than that which is found along the Rhene, a little river running under Bononia: verie full of marow or pith; stiffe also it is and weightie withall; it cutteth the aire, it flyeth away most swiftly; and last of all, it will hold the owne and stand in the weather so countrepoised, that no wind hath any power on it. And those Reeds in Picardie and the low countries, are nothing comparable; ne yet of Candie, how highly soever they bee commended for warre-service. And yet the Reeds that grow in India be preferred before them, and beare the name, which indeed some thinke to be of another nature, considering they be so firme and bigge withall, that beeing well headed with yron, they serve in stead of speares and javelins. In very truth, the Indian Canes for the most part, grow to the bignesse of trees, such as we see commonly in temples, standing there for a shew. The Indians doe affirme, that there is a difference among them also, in regard of sex; and namely, that the substance and matter of the male, is more fast and massie; but that of the female, larger and of greater capacitie within. Moreover, (if wee may beleeve their words) the very Cane betweene every joynt, is sufficient to make a boat. These great Canes doe grow principally along the river Acesine. All Reeds in generall, doe shoot and spring in great number from one root and principall stocke: and the more they bee cut, the better they come againe. The root liveth long, and without great injurie offered unto it, will not die: it also is di-

vided

A vided into many knottie joynts. Thoſe onely of India, have ſhort leaves. But in all of them, the leafe ſpringeth out of the joynt, which embracing the Cane, doth clad it round about with certaine thin membranes or tunicles, as farre as to the middle ſpace betweene the joynts; and then for the moſt part they give over to claſpe the Cane, and hang downward to the ground. As well Reeds as Canes, ſpread their leaves like wings round one after another, on either ſide upon the very joynts, and that in alternative courſe alwaies verie orderly; ſo as if the one ſheath come foorth of the right ſide, the other at the next knot or joynt above it, putteth out on the left, and thus it doth throughout by turnes. From theſe nodoſities, otherwhiles a man ſhall perceive (as it were) certaine little braunches to breake foorth, and thoſe be no other but ſmall and ſlender Reeds.

B Moreover, there bee many kinds of Reeds and Canes: for ſome of them ſtand thicker with joynts, and thoſe are more faſt and ſolide than others, and ſmall diſtance there is betweene the ſame: there be againe, that have not ſo many of them, and greater ſpace there is from the one to the other, and ſuch Canes for the moſt part are of a thinner ſubſtance. Ye ſhall have a Cane all full of holes within, called thereupon Syringias; and ſuch are very good to make whiſtles or ſmall flutes, becauſe they have within them neither griſtly nor fleſhie ſubſtance. The Orchomenian Cane is hollow throughout from one end to the other, and this they call Auleticus, or the pipe Cane; for as the former was fit for flutes, ſo is this better for great pipes. Now you ſhall meet with Canes alſo that ſtand more of the wood, and have but a narrow hole and concavitie within; and this is full of a ſpungeous pith or marow within-foorth. Some be ſhorter, ſome
C longer than other: and where you have one that is thin and ſlender, you ſhall ſpie a fellow to it more groſſe and thicker. That which braunch eth moſt, and putteth foorth greateſt ſtore of ſhoots, is called Donax, and is never knowne to grow but in mariſhes and waterie places, (for herein alſo lyeth a difference) and preferred it is farre before the Reed that commeth up in drie ground. The Archers Reed is a ſeverall kind by it ſelfe (as we have ſhewed before;) but of this ſort, thoſe in Candie have the greateſt ſpaces betweene every joynt; and if they be made hote, they are verie pliable, and will bend and follow which way ſoever a man would have them.

Moreover, Reeds are diſtinguiſhed one from another by the Leafe, not for the number, but the ſtrength and colour. The leaves of thoſe about Lacedæmon, * are ſtiffe and ſtrong, grow- * *Varia*, or *Versicolor*, ποικίλα, *Theoph. i.* of divers colors.
D ing thicker of the one ſide than the other. And ſuch as theſe are thought generally to grow along ſtanding pooles and dead waters, farre unlike to thoſe about running rivers: and beſides, to be clad with long pellicles, which claſpe and climbe about the Cane higher above the joynt, than the reſt doe. Furthermore, there is another kind of Reeds that groweth crooked and winding travers, and not upright to any height, but creeping low toward the ground, and ſpreading it ſelfe in manner of a ſhrub. Beaſts take exceeding great delight to feed thereof, and namely, when it is young and tender, for the ſweet and pleaſant taſt that it hath. Some call this Reed, Elegia.

Over and beſides, there breedeth in Italie alſo among the fennes, a certaine ſalt ſome, named * Adarca, ſticking to the rind or utmoſt barke of Reeds and Canes, onely under the verie * *Calamachne.*
tuft and head: paſſing good it is for the tooth-ach, by reaſon of the hote and cauſticke qualitie
E that it hath like to Senvie or Muſtard-ſeed. As touching the Reed-plots about the Orchomenian lake, I muſt needs write more exactly, conſidering in what admiration they were in times paſt: for in the firſt place, they called that Cane which was the thicker and more ſtrong, Characias; but the thinner and more ſlender, Plotia. And this verily was woont to bee found ſwimming in the Iſlands that floted in the ſaid lake; whereas the other grew alwaies firme upon the bankes and edges thereof, how farre ſoever it ſpred and flowed abroad. A third ſort alſo there is of Canes, which they called Auleticon, for that it ſerveth to make flutes and pipes of: but this commonly grew but every ninth yeare: for the ſaid lake alſo kept that time juſt, and encreaſed not above that tearme; but if at any time it chaunced to paſſe that time and to continue full two yeares togither more than ordinarie, it was holden for a prodigious and fearefull ſigne. The
F which was noted at Chæronia, in that unfortunate battaile wherein the Atheniens were overthrown and defeated: and many times elſe is obſerved to happen about Lebadia, namely, when the river Cephiſus riſeth ſo high, that he ſwelleth over his bankes, and is diſcharged into the ſaid lake. Now during that ninth yeare (whiles the inundation of the lake continueth) theſe Canes proove ſo bigge and ſtrong withall, that they ſerve for hawking poles, and fowlers pearches:

and then the Greeks call them Zeugitæ. Contrariwise, if the water hold not so long, but doe fall and returne back within the year, then the Reeds be small and slender, named Bombyciæ. Howbeit the females of this kind, have a broader and whiter leafe, little or no down at all upon them, and then they are knowne by a pretie name and called Spadones, as one would say, guelded. Of these Reeds were made the instruments for the excellent close musicke within-house: wherein, I cannot passe with silence, what a wonderfull deale of paines and care they tooke to fit them for their tune, and make them to accord: insomuch, as wee are not to be blamed but borne withall, if now adaies we chuse rather to have our pipes and hautboies of silver. And in truth, unto the time of *Antigenes* (that excellent minstrell and plaier upon the pipe) all the while that there was no use but of the plaine musicke and single instrument; the right time of cutting down and gathering these Reeds for this purpose, was about September, when the signe Arcturus is in force: then were they to have a seasoning and preparation for certain yeares, before they would serve the turne: yea and then also much adoe there was with them, and long practise and exercise they asked, before they could be brought into frame and good tune: so as a man might well say, that the very pipes were to be taught their sound and note, by means of certain tongues or quils that strucke and pressed one upon another; and all to give contentment and shew pleasure unto the people assembled at Theatres, according as those times required. But after that musicke came once to be compound, and that men sung and plaied in parts with more varietie and delight, they began to gather these Reeds before mid-Iune, and in three yeares space they had their perfection and grew to their proofe: then were those tongues or holes made more wide and open, for to quaver and chaunge the note the better: and of such are the flutes and pipes made, which be used at this day. But in those times men were perswaded, that there was a great difference in the parts of any Reeds for to serve these or those instruments: in such sort, as that joynt which was next unto the root, they held to be meeter for the Base pipe that was fitted for the left hand; and contrariwise for the Treble of the right hand, those knots that were toward the head and top of the Reed. Howbeit of all others, by many degrees were those preferred which grew in the river Cephisus. Now adaies the Hautboies that the Tuscanes play upon at their sacrifices, bee of Box-wood; but the pipes used in plaies for pleasure only, are made of the Lotos, of asses shankbones, and of silver. The best Faulconers Reeds wherewith they use to chase foules, came from Panhormus: but the Canes for angle-rods that fishers occupie, are brought out of Africk from Abaris. The Italian Reeds and Canes be fittest for to make perches to lay over frames, & props for to bear up vines. Finally, as touching the setting of Reeds, *Cato* would have them to be planted in moist grounds, after they have been first delved and laid hollow with a spade; provided alwaies that the œleth stand three foot asunder, and that there be wild Spatages among, whereof come the tender crops for sallads; for those like well and sort togither with the Canes.

Chap. xxxvii.

Of the Willow or Sallow, eight kinds thereof: and what trees besides the Willow are good for buildings. Also of Briers and Brambles.

MOreover (after the opinion of the said *Cato*) it is good to plant Withies also about river sides, and neare to Reeds: for surely there is not more profit arising from any other tree of the waters, than from it; howsoever the Poplars are well liked and loved of the vines, and doe nourish the good wines of Cæcubum: howsoever the Alders serve in stead of rampiers and strong fences against the inundation and overflowing of rivers, withstanding their forcible eruptions; howsoever they stand in the waters as mures and walls to fortifie the banks, or rather as sentinels to watch and ward in the borders of country farmes; and being cut down to the root, doe multiply the rather, and put forth many shoots and imps as heirs to succeed. And to begin withall, of Sallows there be many kinds: for some there be, that in the head beare pearches of a great length to prop and make trailes for vines to run upon: and the rind or skin as it were pilled from the wood, is as good as a belt or thong to bind or gird any thing withall. Others againe there are, and namely the red Willowes, which carie twigs and rods that are pliable and gentle to wind as a man would have them; fit also for buildings. Ye shall have of these Osiers, some that are very fine & passing slender, wherof are wrought pretie baskets and many other daintie devises; others also that are more tough and strong, good to make paniers, hampers, and a thousand other

A other neceſſarie implements for countrey houſes, and to fit the husband-men. Beeing pilled, they are the fairer and whiter, more ſmooth alſo and gentle in hand, whereby they are excellent good for the more delicate ſort of ſuch wicker ware, and better farre than ſtubborn leather; but principally for leaning chaires, wherein a man or woman may gently take a nap, ſitting at eaſe and repoſe moſt ſweetly. A Willow, the more that it is cut or lopt, the better ſpring will it ſhoot at root, and beare the fairer head. Let that which you cut or ſhred, be ſo little and ſhort withall, that it reſemble a mans fiſt, rather than a bough, the thicker will it come againe: a tree no doubt that would not be ſet in the loweſt ranke, but be well regarded, howſoever we make but baſe reckoning thereof: for ſurely there is not a tree for revenue and profit, more ſafe and certaine; for coſt, leſſe chargeable; and for injurie of weather, in better ſecuritie. Certes *Cato*, among the
B commodities that commend a good ferme or manour, eſteemeth it in the third place, and preferreth the encreaſe and benefit thereby, before the gaine that groweth from Olive rowes, corne fields, and good medowes. Yet hereof wee muſt not infer, that wee are not furniſhed with many other things which will ſerve for bands to bind withall; for we have certain ſorts of Spart or Spaniſh broome, wee have Poplars, Elmes, the Sanguine-ſhrubs, Birch, cloven Reeds, leaves of Cane; as for example in Liguria: the cuttings alſo of the very Vine, and Briars, ſo their ſharpe pricks be cut away, to tie withall; yea and the Hazell wands alſo, ſo they be writhen and twined: wherein a man may ſee a wonderfull propertie, That a wood ſhould be ſtronger for to bind withall, when it it is cruſhed and bruiſed, than whiles it was entire and ſound. All theſe (I ſay) are good for bands, and yet the Willow hath a gift therein beyond all the reſt. The Greek Willow is red,
C and commonly is ſliven for to make withes. The Amerian Oſier is the whiter, but more brittle, and ſoone will cracke, and therefore it is put to that uſe of binding ſound and whole as it groweth, and not cloven through. In Aſia, they make account of three ſorts of Willows: the blacke, which they employ to wind and bind withall, ſo tough and pliant it is: the white, wherewith husbandmen make their wicker paniers and baskets, with other ſuch veſſels for their uſe: as for the third, it is the ſhorteſt of all other, and they call it Helix, or Helice. With us alſo here in Italie, there be as many kinds, and thoſe diſtinguiſhed by their ſeverall names: the firſt, which is of a deepe purple colour, they call the free Oſier or Willow; and that is ſo good for bands: the ſecond, which is more thin and ſlender, is named * Vitelina, for the bright hew that it hath: the third that is ſmalleſt of all three, is the French Willow.

* or, *Vitellinam* rather, for the yellow colour of the yolke of egs.

D To come now to the brittle Ruſhes that grow in mariſh grounds, which ſerve to thatch houſes and to make mats; and the pith whereof when the rind is pilled, maketh wieke for watch-candles, and funerall lights to burne by a dead corps whiles it lieth above ground: they cannot juſtly be reckoned in the ranke either of Shrubs, or Brier-buſhes and Brambles, ne yet of tall plants growing up with ſtems and ſtalkes, no more than among Hearbs and Weeds creeping along the ground; but are to be counted a ſeverall kind by it ſelfe. True it is, that in ſome places there are to be found ruſhes more ſtiffe, hard, and ſtrong, than in others. For not onely mariners and watermen in the river Po doe make ſailes thereof, but fiſhermen alſo of Affrick in the maine ſea: howbeit they hang their ſailes betweene the maſts, from maſt to maſt, after a prepoſterous manner contrary to all other. The Mores alſo doe cover their cottages with Bulruſhes: and ſure-
E ly if a man looke nearely to the nature of them, they may ſeeme to ſerve for that uſe which the Papyr reeds in the neather-land of Ægypt are put unto, about the deſcent and fall of the river Nilus.

As touching Brambles, they may goe among the ſhrubs of the water: ſo may the Elders alſo, which conſiſt of a ſpongeous kind of matter, & yet cannot well be counted among thoſe plants which be tearmed Fenels-gyant: for ſurely the Elder ſtandeth more upon the wood than they doe. The ſhepheards are verily perſuaded, that the Elder tree growing in a by-place farre out of the way, and from whence a man cannot heare a cocke crow out of any town, maketh more ſhrill pipes and lowder trumpes than any other. The Brambles beare certaine berries like the Mulberries, even as the ſweet Brier of another kind, which they call Cynosbatos or the Eglantine,
F carrieth the reſemblance of a Roſe. A third ſort there is of Brambles, which the Greeks call Idæa, of the mountaine Ida. This is the Raſpis: ſmaller it is and more ſlender than the reſt, with leſſe pricks upon it, and nothing ſo ſharpe and hooked. The flower of this Raſpis beeing tempered with honey, is good to be laid to bleared and bloodſhotten eyes; as alſo to the wild-fire or diſeaſe called Saint *Anthonies* fire. Being taken inwardly, and namely drunke with water, it is verie

comfortable to a weake ſtomacke. The Elder beareth certaine blacke and ſmall Berries, full of a G
groſſe and viſcous humor, uſed eſpecially to die the haire of the head blacke. If they be boiled in water, they are good and wholeſome to be eaten, as other pothearbes.

Chap. xxxviii.

Of the juice or humor in trees. The nature of their wood and timber. The time and manner of felling and cutting downe trees.

TRees have a certaine moiſture in their barkes, which we muſt underſtand to bee their verie bloud, yet is it not the ſame, nor alike in all: for that of the Figge trees is as white as milke, and as good as rendles to give the forme to cheeſe. Cherrie trees yeeld a glutinous and gummie humor, but Elmes a thin liquor in manner of ſpittle. In Apple trees the ſame is fattie and viſcous; in Vines and Pyrries, wateriſh. And generally, thoſe trees continue and live longeſt that have ſuch a glewie moiſture in them. In ſumme, there are to bee conſidered in the ſubſtance and bodie of trees, like as of all other living creatures; their skin, their bloud, fleſh, ſinewes, veines, bones, and marrow. For in lieu of their hide is the barke. And I aſſure you, a ſtraunge and marvellous thing it is to be obſerved here in the Mulberrie, that when Phyſicians ſeeke to draw the foreſaid liquour out of it, at ſeven or eight a clocke in a morning, if they ſcarifie or lightly cut the barke with a ſtone, it iſſueth forth, and they have their deſire; but if they cruſh or cut it deeper in, they meet with no more moiſture than if it were ſtarke drie. In moſt trees next to the skin lieth the fat: this is nought elſe but that white ſap, which of the colour is called in Latin Alburnum. As it is ſoft in ſubſtance, ſo is it the worſt part of the wood; and even in the ſtrong Oke, as hard as otherwiſe it is, ye ſhall have it ſoone to putrifie and rot, yea, and quickly to bee worme-eaten. And therefore, if a man would have ſound and good timber, this white muſt be alwaies cut away in the ſquaring. After it, followeth the fleſh of the tree; and ſo the bone, which is the very heart and beſt of the wood. H I

All trees whereof the wood is over drie, beare fruit but each other yeare, or at leaſtwiſe more in one yeare than another, as namely, the Olive tree. A thing obſerved more in them, than in thoſe that have a pulpous and fleſhie ſubſtance, as the Cherrie tree. Neither are all trees indifferently furniſhed with ſtore of the ſaid fat or fleſh, no more than the moſt fierce and furious beaſts. As for the Boxe, Cornell, and Olive trees, they have neither the one nor the K
other, ne yet any marrow at all, and but verie little bloud. Semblably, the Serviſe tree hath no heart, the Elder no carnoſitie, (and yet both of them are ſtored well ynough with marrow, which is their pith) no more than canes or reedes for the moſt part. In the fleſhie ſubſtance or wood of ſome trees, there are to bee found graine and veine both. And eaſie it is to diſtinguiſh the one from the other: for commonly the veines bee larger and whiter; contrariwiſe, the graine (which the Latines call Pulpa) runneth ſtreight and direct in length, and is to bee found ordinarily in trees that will eaſily cleave. And hereupon it commeth, That if a man lay his eare cloſe to one end of a beame or peece of timber, he ſhall heare the knocke or pricke that is made but with a penknife at the other end, bee the peece never ſo long, by reaſon that the ſound goeth along the ſtreight graine of the wood. By this meanes alſo a man ſhall find L
when the timber doth twine, and whether it runne not even, but bee interrupted with knots in the way.

Some trees there be that have certaine hard bunches, bearing out and ſwelling like to kernels in the fleſh of a Swines necke, and theſe knobs or calloſities, have not in them long graine and broad veine, as is aboveſaid: but onely a brawnie fleſh (as it were) rolled round together. And to ſay a truth, when ſuch knurs and calloſities as theſe bee, are found either in Citron or Maple trees, men make great account of them, and ſet no ſmall ſtore by that wood. All other ſorts of tables, when the trees are cloven or ſawne into plankes, are brought into a round compaſſe with the graine: for otherwiſe, if it were ſlit overthwart to make them round againſt the grain, it would ſoone breake out. As touching the Beech, the graine of it runneth croſſe two contrarie waies M
like combe teeth; but in old time the veſſels made of that wood, were highly eſteemed. As for example, *Manius Curius* having ſubdued his enemies, proteſted, and bound it with an oth, That of all the bootie and pillage taken from them, hee hath not reſerved any thing for himſelfe, but onely a cruet or little ewer of Beech wood, wherewith he might ſacrifice unto the gods.

There

A There is no wood but floteth aloft the water, and waveth in length: like as that part which is next to the root, is farre more weightie, ſetleth faſter downe and ſinketh. Some wood hath no veines at all, but conſiſteth onely of a meere graine, ſtreight and ſmall in manner of threds: and ſuch commonly is eaſie to be cloven. There is againe wood which hath no ſuch direct grain, and that will ſooner breake out than cleave, and of this nature is the Olive and Vine-wood. Contrariwiſe, the whole bodie and woodie ſubſtance of the Fig-tree, is nothing but fleſh. The Maſtholme, Cornell, Oke, Tretrifolie, Mulberrie, Ebenie, and Lotus, which have no pith and marrow within, as is beforeſaid, are all heart. All wood for the moſt part turneth to a blackiſh colour. The Cornell tree is of a deepe yellow, whereof are made the faire Bore-ſpeare ſtaves, which ſhine againe, and bee ſtudded (as it were) with knots, and chamfred betweene, both for decencie and
B handſomeneſſe. The Cedar, Larch, and Iuniper wood, is red.

Chap. xxxix.

Of the Larch, the Firre, and the Sapine: the manner of cutting or falling ſuch like trees.

THere is a female Larch tree which the Greekes call Ægis: the wood whereof is of a pleaſant colour, like to honie. Painters have found by experience, that it is excellent good for their tables, both for that it is ſo even and ſmooth, not apt beſides to chinke and cleare; as alſo becauſe it will endure and laſt for ever. And that part they chuſe which is the very heart of it,
C and next the pith, which in the Fir tree the Greekes call Leuſon. In like ſort the heart of the Cedar is hardeſt, which lieth next to the pith or marrow abovenamed (much after the manner of bones in the bodies of living creatures) when the muddie carnoſitie is ſcraped off & taken away. The inward part alſo of the Elder by report is wonderous hard and tough, and they that make thereof ſtaves for Bore-ſpeares, prefer it before any wood whatſoever. For it ſtandeth onely upon skin and bone, that is to ſay, of the rind and heart.

Theophraſtus writeth this of the Cornell tree.

As touching the falling and cutting downe of trees, to ſerve either in temples or for other uſes, round and entire as they grow, without any ſquaring; as alſo for to bark them; the only time and ſeaſon is, when the ſap runneth, and that they begin to bud forth: otherwiſe you ſhall never be able to get off their barke: for barke them not, they will rot and become worme-eaten under
D the ſaid barke, and the timber withall waxe duskiſh and blacke. As for the other timber that is ſquared with the axe, and by that meanes rid from the barke, it would bee fallen or cut downe betweene mid-winter and the time that the wind Favonius bloweth: or, if wee bee forced to uſe the timber before, and to prevent that time, trees may be fallen at the ſetting of the ſtar Arcturus, or of the Harpe ſtar before it. Finally, the utmoſt and laſt time thereof is at the Summer Sunſtead. But for as much as moſt men be ignorant of theſe ſeaſons, and know not when theſe ſtars abovenamed doe either riſe or fall, I will hereafter ſhew the reaſon both of the one and the other in place convenient. For this preſent, as touching the time of felling trees, the common ſort make no more ſcruple, but thinke it ſufficient to obſerve, that no trees which are to be hewne ſquare for Carpenters worke be caſt downe and laid along before they have borne their fruit. As
E for the hard and ſavage Oke, if it bee felled in the Spring, it will be ſubject to the worme: but cut it downe in midwinter, it will neither warpe, nor yet cleave and chinke: being otherwiſe ſubject unto both, namely, as well to caſt and twine, as to rift and gape: a thing incident to the Corke wood, bee it cut downe in as good a ſeaſon as it is poſſible. Moreover, it paſſeth to ſee how much the age of the Moone availeth in this caſe. For it is commonly thought, that timber would not be fallen but in the wane, and namely, in the laſt quarter, from the twentieth day of the Moone, untill the thirtieth. And this is generally received among all good workemen, That the beſt time to cut downe any timber, is in the conjunction of the Moone with the Sunne, even the very day of the change, before ſhe ſheweth new. Certes, *Tiberius Cæſar* the Emperour, gave order to fell the Latch trees that came out of Rhœtia, to repaire and reedifie the bridge that ſerved to repre-
F ſent the ſhew of a navall battell upon the water (which fortuned to be conſumed with fire) juſt at the chaunge of the Moone. Some ſay, that we muſt preciſely obſerve the point of the conjunction, and that the Moone withall be under the earth, when ſuch trees ſhould be felled: which cannot be but in the night. But if it fall out beſides, that this conjunction or change of the Moone, and the laſt day of the winter Sunſtead meet together at one inſtant: the timber then cut downe

will

will last a world of yeares. Next unto it is that timber which is fallen in the daies and signs above rehearsed. Others affirme moreover, that the rising of the Dog star would be considered & chosen for this purpose: for at such a time was that timber felled, which served for the stately hall or pallace of *Augustus*. Moreover, for to have good and profitable timber, the trees would bee cut downe that are of a middle age, for neither young poles nor old runts are fit for durable building. Furthermore, there bee that hold opinion, That for to have the better timber, the trees should have a kerfe to the very heart and pith round about, and so let it stand an end still, that all the humor by that meanes might run out, before they be overthrowne and laid along. And verily, a wonderfull and miraculous thing is reported in old time, during the first Punicke war against the Carthaginians, namely, That all the ships of that fleet which was conducted by Generall *Duellius* the high Admirall, were shot into the sea and under saile, within threescore daies after that the timber whereof they were built, was cut downe in the wood. And *L. Piso* hath left in writing, That against king *Hiero*, there were two hundred and twentie ships made and furnished in five and fortie daies after the timber grew. Also in the second Punicke war, the Armado which *Scipio* emploied, was set aflote and bare saile fortie daies after the fall of the timber. See how forcible and effectuall in all things is the season & opportunitie of time duly taken, especially when need driveth to make speed and hasten apace.

Cato the cheefe and onely man of all others for experience and knowledge in every thing, in his Treatise of all kind of timber to be emploied in building, giveth these rules following, Make thy pressing planke especially of the black *Sapine or Hornbeame tree. *Item*, Whensoever thou meanest to storke up either Elme, Pine, Walnut tree, or any other whatsoever for timber, see thou dig it out of the ground, in the wane of the moone, and that in the afternoone, and take heed in any wise that the wind be not South. *Item*, The right season to fell a tree for timber, is when the fruit is full ripe. *Item*, Beware in any case, that thou neither draw foorth of the ground, nor yet square a tree, when the dew falleth. And a little after. Beware thou meddle not with timber trees but either at the change or full of the Moone. And in no hand, neither storke it up then, nor hew it hard to the ground. But within foure daies after the full Moone, plucke up trees hardly, for that is the best time. *Item*, Be well advised, that thou neither fell, square, nor touch with the ax, any timber that is blacke, unlesse it be drie. And meddle not with it, if either it be frozen, or full of deaw. *Tiberius* the Emperour abovenamed, observed likewise the chaunge of the Moone, for cutting the haire both of head and beard. And yet *M. Varro* gave a rule, That to prevent baldnesse and the shedding of haire, the Barber should be sent for alwaies after the full Moone.

Sapino or, *Carpine.*

But to come againe unto our timber trees. The Larch and Fir, both, but the Fir especially, if they be cut down, bleed a long time after, and yeeld abundance of moisture. Indeed, these twaine of all other bee the tallest, and grow most streight and upright. For Mast poles, and crosse-Saile-yards in ships, the Fir or Deale is commended and preferred before all other, for the smoothnes and lightnesse withall. The Larch, the Fir, & the Pine, have this propertie common to them all, To shew the graine of their wood, running either parted in foure, forked in twaine, or single one by one. For fine Carpentrie and Ioiners seeling within house, the heart of the tree would be cloven or rent. The quarter timber, or that which runneth with foure graines, is simply the best, and more pleasant to be wrought than the rest. They that be skilfull woodmen and have experience in timber, will soone find at the first sight the goodnesse of the wood by the very barke. That part of the Fir tree which groweth next to the earth, is without knots, even and plaine: the same is laid to soke and season in the water, and afterwards the barke is taken off, and so it commeth to bee called Sapinus. The upper part is knottie and harder than the nether, and the Latines name it Fusterna. In summe, what tree soever it be, that side which regardeth the North, is more strong and hard than the other. And generally, the wood of those trees that grow in moist and shadie places is the worse: contrariwise, that which commeth from ground exposed to the Sunneshine is more fast and massie, and withall, endureth a long time. And hereupon it is, that at Rome the Fir trees that come from the nether sea side out of Tuscane, be in better request than those from Venice side, upon the coast of the upper sea.

Moreover, there is great ods betweene Fir trees, in regard of diverse countries and nations where they grow. The best are those of the Alpes and the Apennine hils. Likewise within France there are excellent good Firs upon the mountaines Iura and Vogesus: as also in Corsica, Bithynia, Pontus, and Macedonia. A worse kind of them grow in Arcadia and about the mountaines neare

A neare Ænea. The worſt be thoſe of Pernaſſus,& Eubœa: for in thoſe parts they be full of boughs and grow twined,beſides,they ſoone doe putrifie and rot.

As for Cedars,the beſt ſimply be thoſe that grow in Candie,Affricke,and Syria. This vertue hath the oile of Cedar, That if any wood or timber be throughly annointed therewith,it is ſubject neither to worme nor moth,ne yet to rottenneſſe.

The Iuniper hath the ſame propertie that the Cedar. They prove in Spaine to bee exceeding big and huge,the Berries alſo greateſt of all others.And whereſoever it groweth,the heart therof is more ſound than the Cedar.

A generall fault and imperfection there is common to all wood,When the grain,& the knots run into round balls;and ſuch they call in Latine Spiræ.Alſo in ſome kind of timber, like as in
B marble alſo there bee found certaine knurs like kernils, as hard they be as naile heads, and they plague ſawes,whereſoever they light upon them.Otherwhiles they fall out to be in trees,by ſome accidentall occaſion,as namely,when a ſtone is gotten into the wood,and encloſed within it: or, in caſe the bough of ſome other tree be incorporate or united to the foreſaid wood. There ſtood a long time a wild Olive in the market place of Megara,upon which the hardie and valiant warriors of that citie uſed to hang and faſten their armour, after ſome worthie exploit performed: which in tract and continuance of time were overgrowne with the barke of the ſaid tree,& quite hidden. Now was this a fatall tree unto the ſame citie and the inhabitants thereof,who by way of Oracle were forewarned of their wofull deſtinie and utter ruin; which was to happen,When that a tree ſhould be with young,and delivered of harneis: which Oracle was fulfilled when this tree
C was cut downe,for within the wombe thereof were found the mourrions,jambriers or greives,of brave men in times paſt. To conclude, it is ſaid,That ſuch ſtones ſo found in trees bee ſingular good for a woman with child,to carie about her,that ſhe may goe her full time.

Chap. xl.

Of diverſe ſorts of timber. Of certaine trees of extraordinarie bigneſſe. What trees they be that never be worme-eaten,nor decay and fall. What wood doth endure and continue alwaies good.

D THe greateſt tree that to this day had ever beene knowne or ſeene at Rome, was that,which being brought with other timber for the rebuilding of the foreſaid bridge called Naumachiaria, *Tiberius Cæſar* commanded to be landed and laid abroad in view for a ſingular and miraculous monument to all poſteritie: and it remained entire & whole,untill the time that *Nero* the Emperour built his ſtately Amphitheatre. This peece of timber was of a Larch tree: it contained in length 120 foot, and carried in thickneſſe every way two foot, from one end to the other. Whereby a man may gueſſe and judge the incredible height of the whole tree beſides,to the very top. Such another tree there was to be ſeene in our daies, which *M. Agrippa* left for the like ſingularitie & wonder of men,in thoſe ſtately porches and cloiſters that he made in *Mars* field: and it continued ſtill after the building of the muſter place and treaſurers hall named Diribitorium. Shorter it was than the former by twentie foot, and caried a foot and halfe in
E thickneſſe. As for the Fir tree, which ſerved for a maſt in that huge ſhip,which by the commaundement and direction of *C. Caligula* the Emperour tranſported and brought out of Ægypt, that Obeliske which was erected and ſet up in the Vaticane hill, within the Cirque there, together with the foure entire ſtones which bare up the ſaid Obeliske as ſupporters;it was ſeene of a wonderfull and ineſtimable height above all others: and certaine it is, that there was never knowne to flote upon the ſea a more wonderfull ſhip than it was. She received 120000 Modij of Lentils for the very ballaiſt; ſhee tooke up in length the greater part of the left ſide of Hoſtia harbour: for *Claudius* the Emperour cauſed it there to be ſunke,together with three mightie great piles or dams founded upon it, and mounted to the height of towers, for which purpoſe there was
F brought a huge quantitie of earth or ſand from Puteoli. The maine bodie of this maſt contained in compaſſe foure fadome full. And a common by-word it is, currant in euery mans mouth, that Fir maſts for that purpoſe,are uſually ſold for eight hundred Seſterces apeece,and more monie: whereas for the moſt part plankes which are ſet together and ſerve in ſtead of boats,ordinarily coſt but fortie. Howbeit,the kings of Ægypt and Syria,for default and want of Fir,have uſed(by report)in ſteed thereof Cedar wood about their ſhipping. And verily,the voice goeth of an exceeding

ceeding big one which grew in Cyprus, and was cut downe for a maſt to ſerve that mightie galleace of king *Demetrius*, that had eleven bankes of oares to a ſide; a hundred and thirtie foot it was high, and three fatham thicke. And no marvell, ſince that the pyrates and rovers who haunt the coaſts of Germanie, make their punts or troughs of one entire peece of wood and no more, wrought hollow in manner of a boat, and ſome one of them will hold thirtie men.

To proceed now unto the ſundrie natures of wood. The moſt maſſie and faſt wood, and therefore the weightieſt of all other, by judgement of men, is that of the Ebene and the Boxe: both ſmall trees by nature. Neither of them twain ſwimmeth above the water, no more will the Corke wood, if it be barked, nor the Larch. Of all the reſt, the ſaddeſt wood is that of Lotus, I meane that which at Rome is ſo called. Next to it, is the heart of Oke, namely, when it is rid of the white ſappie wood: the heart (I ſay) which commeth neare to a blacke colour: and yet the Cytiſus or Tretrifolie is blacker, and ſeemeth moſt to reſemble the Ebene. Howbeit, you ſhall have ſome, who affirme that the Terebinths of Syria bee blacker than it. There was one *Thericles* a famous Turner, who was wont to make drinking cups, mazers, and bowles of the Terebinth; which is a ſufficient proofe, that the wood is fine and hard. This wood alone of all others, loveth to bee oiled, and ſurely the better it is for the oile. But a marvellous pretie deviſe there is to ſet a paſſing faire blacke colour, and a ſhining gloſſe upon it; with Walnuts and wild Peares, namely, boiling theſe together, and making thereof a mixture and compoſition to give the ſaid tincture. All theſe trees abovenamed have a ſad and faſt wood. Next to them in that reſpect is the Cornell tree: and yet I cannot properly raunge it in the order of timber trees, ſo ſmall and ſlender it is. Neither is the wood thereof good in manner for nought els but for ſpokes in cartwheeles, alſo to make wedges to cleave wood, and tough pins, which will hold as faſt well neare as yron ſpikes. In like ſort, the Maſt-holme, the Olive both wild and tame, the Cheſtnut tree, the Hornebeame, and the Poplar, be of an hard ſubſtance, and meet for this purpoſe. The wood hereof hath a curled graine like the Maple, and ſurely would bee as good timber as any, but for often lopping the boughs, which gueldeth and deminiſheth the ſtrength. Moreover, many of them there bee, and the Oke eſpecially, ſo hard, that unleſſe they be ſoked firſt in water, it is impoſſible to bore a hole into them with an augoer, nor to plucke forth a naile if it be once ſet faſt, water them as much as you will. Contrariwiſe, the Cedar will not hold a naile. The wood of the Linden tree ſeemeth of all other to be moſt ſoft, and hoteſt withall: for proofe whereof, this reaſon men doe alleadge, becauſe it ſooneſt turneth and dulleth the axe edge. Of a hote nature alſo are the Mulberrie tree, the Lawrell, and the Yvie, and in one word, all thoſe that ſerve to ſtrike fire with. This experiment was firſt found out by ſpies, that goe betweene campe and campe, by ſheepheards alſo in the field: for having not flint evermore readie at hand to ſmite and kindle fire withall, they make ſhift for to rub and grate one wood againſt another, & by this attrition there flie out ſparckles, which lighting upon ſome tinder, made either of drie rotten touchwood, or of bunts and withered leaves, very quickly catch fire, and burne not out. And for this intent, there is nothing better than to ſtrike the Yvie wood, with the Bay. In this caſe alſo the wild Vine (I meane not Labruſca) is much commended: and it climbeth and runneth upon trees in manner of Yvie.

The trees that grow in waterie grounds be coldeſt of all others: but ſuch be tougheſt, & therfore beſt to make bucklers and targuets, the wood whereof, if it bee cut, commeth quickly together, and cloſeth up the gaſh again, & in that regard, much adoe there is to pierce it through with any weapon whatſoever. And of this ſort are Fig trees, Willowes, Lindens, Birch, Elder, Aſh, and Poplar. Of all theſe, the Fig tree and the Willow bee lighteſt, and therefore fitteſt for that purpoſe. Theſe trees laſt rehearſed, bee good for caskets and foſſers: wicker baskets alſo and prettie paniers, which be made of winding twigs. Their wood beſides is faire and white, ſtreight alſo and eaſie to be graven. The Plane wood is ſoft and gentle, but moiſt withall; and ſo is the Alder. Elme likewiſe, Aſh, Mulberrie, and Cherry-tree wood, is pliable, but drier and more powderous. The Elme, of all kinds of wood, will keepe ſtreight and ſtiffe beſt, and not warpe at all: and becauſe it twineth and caſteth not, it is paſſing good for hinges and hookes, for ſawne bords, for ledges in dores and gates: ſo as this regard bee had of exchange, that the upper end of the bord which grew toward the head of the tree, bee fitted to the nether hinge or hooke of the dore; and contrariwiſe the butt end, ſerve the higher. The Date tree and the Corke, have a ſoft & tender wood: the Apple tree, Peare tree, and Maple, have as ſad and maſſie; but brittle it is, like as all wood that goeth with a croſſe and frizled graine. And looke what tree ſoever is naturally hard

and

A and tough, the wild and the male of the same kind, have their wood more churlish than otherwise it is in the rest. Semblably, those that beare no fruit, are of a faster and firmer wood than the fruitfull: unlesse it bee that the males bee bearers, and the female barren, of which sort are the Cypresse and Cornell trees. The wood of Cypresse, Cedar, Ebene, Lotus, Box, Yewgh, Iuniper, and the Olive both savage and gentle, is never worme-eaten, ne yet rotteth for age. As for all other trees, long it is before these decay, to wit, the Larch, the Oke, the Corke tree, Chestnut and Walnut tree. The Cedar, Cypresse, and Olive wood, never doth chinke or cleave of it selfe, unlesse it be by some accident.

It is commonly thought, that the Boxe, the Ebene, the Cypresse, and Cedar wood, is everla- 4.
sting and will never be done. An evident proofe thereof as touching all these sorts of timber, by
B the judgement and choise of so many men, was to bee seene in that famous temple of *Diana* in Ephesus: for all Asia set to their helping hand and contributed toward that worke, which in four yeares and not before, they brought to an end and finished. The beames, rafters, and spars that went to the making of the roufe, were by the generall voice of the whole world, of Cedar timber. As touching the statue or image it selfe of the goddesse *Diana*, it is not so certainely known of what wood it was: all writers, save onely *Mutianus*, report that it was of Ebene. As for him, a man who had been thrice Consull of Rome, and one of the last who upon their owne sight of the said thing, wrate thereof, avoucheth that it was made of Vine wood; and that, howsoever the temple was ruined and rebuilt againe no lesse than seven times, yet the foresaid image was never altered nor chaunged. Who saith moreover, that *Canetias* chose that wood for the best (for
C so he named the workman that cut and carved it.) And I much marvell thereat, considering that by his saying this image was of greater antiquitie than that of ladie *Minerva*, much more than of prince *Bacchus*. He addeth moreover and saith, that this statue was embaulmed within, by reason of the precious oile of Spikenard, which was distilled into it at many holes: by meanes of which medicinable liquor, the wood was nourished, and the joints held close and fast together: whereat I cannot chuse but marvell againe very much, that considering the statue was so small, it should have any peece or joint at all. Now as touching the leaves of the dores belonging to this temple, they were by his report, of Cypresse wood: and continued still fresh and new to the eie, notwithstanding it is foure hundred yeares well neare since they were made. Where, by the way, this is to be noted, that these dores stood foure yeares glewed in the clave. And verily, this wood
D was chosen for that purpose, because among other properties, the Cypresse alone hath this gift, to looke alwaies shining and polished, and never loseth the glosse and beautie. And for to prove this, we need not to goe farre: Looke but upon the image of * *Vejovis* in the Capitoll, made of Cypresse wood, doth it not endure still faire and trim? and yet was it dedicated and consecrated in that temple, in the yeare after the foundation of Rome, 551. * or, *Jupiter.*

A famous and memorable temple there is of *Apollo* at Vtica, where the beames and maine peeces of timber, made of Numidian Cedars, remain as whole and entire as at the first day when they were set up, which was when the citie was first founded: by which computation, they have continued alreadie 1188 yeares. Moreover, it is said, that at Saguntum a citie of Spaine, there is a temple of *Diana* still standing, a little beneath the citie: and yet as king *Bacchus* mine Authour
E saith, 200 yeares before the ruine & destruction of Troy, the same men which brought the image of the said *Diana* from the Island Zacynthus, founded the temple aboveſaid. For the antiquitie and religion whereof, *Anniball* made some conscience to demolish it, and would not once touch it: and therein are to be seene at this day the beames and rafters of Iuniper, sound and good. But above all other, memorable is the temple of the said goddesse *Diana* in Aulis, which was built many hundred yeares before the Trojane warre: but what kind of timber was emploied about the Carpentrie thereof, is not well knowne. Howbeit, this we may boldly resolve upon, that the more odoriferous any wood is, the more durable also it is, and everlasting.

Next to those trees above rehearsed, the wood of the Mulberrie tree is most commended, which in tract of time as it groweth to be old, waxeth also blacke. Moreover, some kinds of wood
F as they be more lasting than other: so they continue better being emploied in one kind of work, than they doe in another. The Elme timber will well abide the aire and the wind. The wild Oke Robur loveth to stand within the ground, and the common Oke is good in the water: let it bee used above ground to take the aire and the weather, it will cast, warpe, and cleave, too bad. The Larch wood agreeth passing well with water workes, and so doth the black Alder. As for the Oke

Robur,

Robur, it will corrupt and rot in the sea. The Beech will doe well in water, and the Walnut tree likewise: but to stand within the earth, they are principall good, and have no fellow. And for the Iuniper, it will hold the owne, being laid under ground: but for building above in the open aire, it is excellent good. The Beech and the Cerrus wood rot quickly. The small Oke called Esculus cannot abide the water. The Cherrie tree wood is firme and fast: the Elme and the Ash are tough; howbeit, they will soone settle downeward and sag, being charged with any weight, but bend they will before they breake: and in case before they were fallen, they stood a while in the wood, after they had a kerfe round about, for their superfluous moisture to run out untill they were well dried, they would be the better & surer in building. It is commonly said, that the Larch wood if it be put into ships at sea, is subject to the worme: like as all other kinds of wood, unlesse it be the wild and tame Olive. For to conclude, some timber is more readie to corrupt & be marred in the sea, and others againe upon the land.

Chap. xli.

Of wormes that breed in wood.

OF vermine that eat into wood, there bee foure kinds. The first are called in Latine Teredines: a very great head they have for the proportion of the bodie, and with their teeth they gnaw. These are found onely in ships at sea, and indeed properly none other bee Teredines. A second sort there bee, and those are land wormes or mothes, named Tineæ. But a third kind resembling gnats, the Greekes tearme by the name of Thripes. In the fourth place bee the little wormes: whereof some are bred of the putrified humour and corruption in the verie timber: like as others againe engender in trees, of a worme called Cerastes: for having gnawne and eaten so much, that hee hath roume ynough to turne him about within the hole which he first made, hee engendreth this other worme. Now, some wood there is so bitter, that none of these vermine will breed in it, as the Cypresse: others likewise so hard, that they cannot eat into it, as the Boxe. It is a generall opinion, that if the Firre bee barked about the budding times, at such an age of the Moone as hath been before said, it will never putrifie in the water. Reported it is by those that accompanied *Alexander* the great in his voiage into the East, that in the Island Tylos lying within the red sea, there be certain trees which serve for timber to build ships, the which were knowne to continue two hundred yeares: and being drowned in the sea, were found with the wood nothing at all perished. They affirmed moreover, that in the same Island there grew little plants or shrubs, no thicker than would well serve for walking staves to carie in a mans hand, the wood whereof was massie and ponderous, striped also and spotted in manner of a Tygres skin; but so brittle withall, that if it chaunced to fall upon a thing harder than it selfe, it would breake into fitters like glasse.

Chap. xlii.

Of timber good for Architecture and Carpentrie: what wood will serve for this or that worke: and which is the strongest and surest timber for rouses of building.

WEe have here in Italie, wood and timber that will cleave of it selfe. For which cause our Maister Carpenters give order to besmeare them with beasts dung, and so to lie a drying, that the wind and piercing aire should not hurt them. The joists and plankes made of Firre and Larch, are very strong to beare a great weight, although they bee laid in length overthwart. Contrariwise, the rafters made of the wild Oke Robur, and Olive wood, will bend, and yeeld under their load: wheras the other named before, do resist mainly and withstand, neither will they easily breake, unlesse they have much wrong: nay sooner doe they rot, than faile otherwise in strength. The Date-tree wood also is *tough and strong, for it yeeldeth not, but curbeth the contrarie way. The Poplar setleth and bendeth downeward: whereas the Date-tree contrariwise riseth upward archwise. The Pine and the Cypresse are not subject either to rottennesse or worme-eating. The Walnut-tree wood soone bendeth, and is saddle-backt as it lieth, (for thereof also they often use to make beames and rafters) but before that it breaketh, it will give warning by a cracke; which saved many a mans life in the Island Antandros, at what time

*Valida, ex Theophrast.

A time as being within the common baines, they were skared with the cracke that the floore gave, and ran forth ſpeedily, before all fell. Pines, Pitch trees, and Allar, are very good for to make pumps and conduit-pipes to convey water; and for this purpoſe their wood is boared hollow: lying buried under the ground, they will continue many a yeare ſound and good; let them be uncovered without any mould and lie above-ground, they will quickely decay. But if water alſo ſtand above the wood, a wonder it is to ſee how they will harden therewith and endure. Firre or Deale wood, is of all other ſureſt and ſtrongeſt for rouſes above head: the ſame alſo is paſſing good for dore leaves, for bolts and barres: alſo in all ſeelings and wainſcot whatſoever it be, whether Greekiſh, Campaine, or Sicilian, it is the beſt, and maketh very faire worke. A man ſhall ſee the fine ſhavings thereof run alwaies round and winding, like the tendrils of a vine, as the B Ioyner runneth over the painels and quarters with his plainer. Moreover, the timber of it is commendable for coches and chariots. And there is not a wood that maketh a better and ſtronger joynt with glew, than it doth: inſomuch, as the ſound planke will ſooner cleave in any other place, than in the joynt where it was glewed.

Chap. xliii.

Of glewing timber: of rent, cloven, and ſawen painell.

C GReat cunning there is in making ſtrong glew, and in the feat of joyning with it, as well in regard of ſeelings and wainskot made of thin bourd and painell, as of marquetrie & other inlaid workes: and for this purpoſe, Ioyners doe chuſe the miſtreſſe threadie graine that is moſt ſtreight, which ſome call the Fertill veine, becauſe ordinarily it breedeth others; and yee ſhall ſee it braunching and curled, as if it ſhed teares and thoſe trickling downe. In every kind of wood whatſoever, the criſped graine will not take glew and bear a joynt. Some wood it is impoſſible to glew and joyne, with peeces of their owne kind, much leſſe of other wood; as the hard oke Robur. And lightly yee ſhall not have peeces of a divers nature, knit and unite well in a joint, no more than if a man ſhould goe about to glew and joyne ſtone & wood together. The Serviſe tree wood cannot in any wiſe ſort in a joynt with the Corneill wood; no more can the Hornebeame and the Box: after them, the Tillet or Linden wood may hardly away with his ſocietie. To ſpeake generally, whatſoever wood is gentle and apt to bend, (ſuch as we call pliant) the ſame is D good and eaſie to bee wrought to any worke that a man would have: to which, you may put the Myrtle and wild Fig-tree. Durable and handſome withall, either to bee cut, ſquared, cloven, or ſawen, are all thoſe kinds of wood which be by nature moiſt. As for drie peeces of timber, they give not way ſo faſt to the ſaw, as greene: and yet you muſt except the Oke and the Box wood, which although they be greene, doe ſtiffely withſtand the ſaw-gate, choking and filling up their teeth even; by which meanes the ſlit is hindred, and the worke goeth not forward: which is the cauſe alſo that the ſawyers draw up and let downe the ſaw twice, before the teeth ſend from them any duſt into the pit. As for the Aſh, it is moſt eaſie to be wrought, put it to what uſe you will, and maketh the faireſt worke: and namely for horſemens ſtaves, better it is than Hazell, lighter than the Corneil, and more gentle and pliable than the Serviſe wood. The French white Aſh, it will E bend well for cart-thills and fellies. The Elme would be very like vine-wood, but that it is more ponderous and heavie. The Beech is eaſie to bee wrought into any forme, brittle though it be and tender: yet thereof are made fine trenchers, thin ſhindles, and ſuch like, as will wind & bend every way: and therefore it is the only wood commendable for to make pretie caskets, paniers, and boxes. The maſt-Holme alſo may be cut into fine thin foile or leaves like plates, and thoſe alſo are of a daintie and pleaſant colour: but ſingular good is the wood thereof for ſuch things as fret and weare with rubbing, and namely, the axeltrees in wheeles: and as the Holme (I ſay) is fit for this purpoſe in regard of the hard wood; ſo the Aſh likewiſe, becauſe it is ſo lyth and pliable: in which two reſpects, the Elme is choſen before them both. Moreover, the wood of theſe trees before-named, are notable to make many pretie tooles that ſerve artizans in their daily F worke: and therefore it is commonly ſaid, That the wood of the wild Olive, Box, maſt-Holme, Elme, and Aſh, are excellent good for awgre-handles and wimble-ſtocks. Of the ſame alſo are made mallets; but beetle heads of the bigger ſort, of the Pine and Holme. A great reaſon why theſe kinds of wood are the more tough & harder, is when the trees have their right ſeaſon, and be cut downe in their beſt time, rather than too ſoone and before they are come to maturitie.

Thus it hath been knowne that doore-hinges and hookes made of Olive wood (which otherwise is most hard) if they have rested any long time, and not been worne by shutting and opening too and fro, have put forth fresh buds, as if they had growne still in the plant. As for dore-barres and bolts, *Cato* would have them made of Holly, Bay-tree, and Elme. The handles and helves of rusticall tooles, mattocke steles, and spade trees, *Hyginus* willeth they should be either of Horne-beame, Holme, or Cerrus. For fine painell in fret-worke, for seeling also and overlaying other wood, these are the chiefe, the Citron, Terebinth, Maple of all sorts, Boxe, Date tree, Hulver, Holme, Elder root, and the Poplar. The Alder tree likewise (as hath been said) doth affourd certaine swelling bunches and hard knots, which may be cut and cloven into most daintie flakes and pretious leaves, as faire and pleasant to the eye for their damaske braunch, as either Citron or Maple: serting which three aside, there be no knurres and nodosities in any tree worth ought and of account.

Moreover, ye shall have trees ordinarily in the mids toward the heart, carie a more crisped and curled wood; and the nearer it is to the butt or root end, the finer is the graine, more braunching also, and the streakes winding in and out. Loe, from whence first came the superfluous expence to cover and seele one wood with another! See how those trees which for their very wood were of no price, are become more costly and deerer, when they serve as a barke to clad others! that one tree forsooth by this means, should be sold many and sundrie times at a severall price. Thus have been devised (I would not else) thin leaves of wood, like gold or silver-foile. And yet that is not all: for there is come up of late a devise, to paint and die in sundry colours the hornes of beasts, to cut and saw their teeth into thin plates: and whereas at first there was fret-works only inlaid and set out with Ivorie here and there, soone after it came to passe, that the wood was covered all over therewith. Neither hath the royot and wastfull prodigalitie of the world staied there, but proceeded farther, even to search into the deepe sea for that, which might serve in stead of wood and timber. Thus the Tortoise shell hath been cut into flakes and leaves, for want forsooth of wood upon drie land. And now of late daies, certaine monstrous spirits, during the Empire of *Nero*, have found out a devise to disfigure the Tortoise shell also with paintings, that it might be sold the deerer when it lookt like wood. Thus meanes are wrought, that the price of beds should be raised and set up by this means: thus they would have the Terebinth wood to be excessive deere and above the woorth: thus must the Citron wood be enhaunsed to an higher rate: and thus the Maple is counterfeited, Tortoise shels are foisted in the place and bought for it. To conclude, of late daies the curiositie of men was such, that they could not content themselves with rich and costly wood; and now for to beautifie and set out their wood, Tortoise shels must needs be bought, there is no remedie.

Chap. xliii.

The age of trees: what kind of trees they be that are of least continuance. Semblably of Misselto, and the Priests called Druidæ.

IF a man would consider the hidden corners of the world, and the inaccessible desarts that be in it, he might by infallible arguments conclude and resolve, that there be some trees which have continued time out of mind, and lived infinitely. But to speake of their age only that are knowne (even by the testimonie of auncient records, & those faithfully delivered unto us) there are to be seen standing and growing at this day, about Linternum (a town in Campaine) certain Olive trees, which *Scipio Africanus* (the first of that name) planted long since with his own hand. In the same place also there is a Myrtle tree, of a rare and admirable greatnesse; and under it, a cave or hole in the ground, wherein (by report) there lyeth a dragon that keepeth the ghost and soule of the said *Scipio*. And at Rome, in the court-yard belonging to the chappell of goddesse *Diana Lucina*, there is yet to be seene a Lote tree standing before the said chappell, built in the yeare of the Anarchie, what time as Rome stood desolate of all magistrates, and that was 369 yeares after the foundation of the citie: but how much more auncient this tree is than the said temple, God knoweth: for, elder it is without all question, considering that of the grove or tuft of trees there growing, which the Latins call Lucus, the said goddesse *Diana* tooke her name * *Lucina*. Now is it 450 yeares or thereabout, since that time, and so old it is doubtlesse. Another Lote tree there is and elder than that, but the age thereof is likewise uncertein: known it is by

* *Gratia Lucinæ dedit hæc tibi nomina Lucus.* Ovid.

A by the name Capillata, [*i.* hairie:] ſo called, becauſe the haire of the veſtall Nuns heads is uſually thither brought, and there conſecrated. And yet is there a third Lotus at Rome in the court-yard and cloiſter about the temple of *Lucane*, which *Romulus* built for a perpetuall monument and memoriall of a victorie, and defraied the charges out of the tenths of the pillage and ſpoile that hee woon from his enemies; and this tree is at leaſt full as old as the citie of Rome, if it be true that *Maſſurius* writeth. The roots thereof, paſſing along the ſtreet where the Burgeoiſes uſe to keepe their reſidence, doe reach as farre as the ſtately market-place or Hall of *Cæſar*. There grew by it a Cypreſſe tree alſo of the ſame age, the which by an overſight and careleſſe neglect, fell downe no longer ſince than the laſt yeere of *Nero* the Emperour. But why ſtand wee long hereupon? there is an Holme growing in the Vaticane, elder than Rome it ſelfe, with a plate of
B braſſe upon it engraven in Tuſcane letters, containing an inſcription or title: whereby it appeareth, that even in thoſe daies the ſaid tree for antiquitie, was worthie of peoples devotion. Moreover, it is well knowne, that the Tyburtines are more auncient than the Romans, and their citie Tybur founded many a yeare before Rome: and yet certaine it is, that there bee yet three Holmes there remaining alive, elder than *Tyburtus* himſelfe, their firſt founder: upon which trees (as the voice goeth) hee obſerved the flight of birds, and thereby tooke his auſpices and warrant from the gods to build the ſaid citie. And (by report) the ſonne he was of *Amphiaraüs*, who died at Thebes an hundred yeares before the Trojane warre. Writers there be who affirme, that both that Plane tree which groweth before the temple of *Apollo* at Delphos, was ſet by king *Agamemnons* owne hand: as alſo another in the ſacred grove of Caphys in Arcadie. Furthermore,
C at this day, there be trees near unto the ſtreight of Callipolis, ſometime called Helleſpontus, over-againſt the citie of the Ilians, where old Troy ſtood, growing cloſe unto the tombe or ſepulchre of *Proteſilaus*: which every fourteen yeares ſo ſoon as they are ſhot up ſo tall only as they may ſeeme to diſcover and ſee the citie Ilium, immediatly begin to wither and fade; & afterwards ſpring againe and grow anew unto that age and height aforeſaid. Hard by the citie of Ilium, there be certaine Okes alſo (as folke ſay) neare unto the tombe of *Ilus*, which were then planted or ſet of acorns, when Troy began to be called Ilium. It is reported moreover, that the Olive tree remaineth yet alive at Argos, unto which *Argus* tied ladie *Iö*, after ſhee was transformed or turned into an Heifer. About Heraclea in Pontus, there be certaine altars erected to the honour of *Iupiter* ſurnamed *Stratius*, over which there ſtand two Okes, both ſet by the hands of
D *Hercules*. In the very ſame tract there is an haven, ennobled and renowmed by the name of *Amycus* the K. of the Bebrycians there ſlaine. His tomb, from the very day of his ſepulture, hath ben overſhadowed with a Bay tree (planted there and then for that purpoſe) which the people of that countrey doe call The raging or mad Lawrell; for plucke but a braunch or twig thereof be it never ſo ſmall, and carie it into a ſhip, all the mariners & paſſengers within, will fall a brawling, and never agree untill it be caſt out and throwne away out of the veſſell, which was brought thither from the tree aforeſaid. Of a certaine region we have before written, called Aulocrene, lying in the way betweene Apamia and Phrygia; and there the paiſants of that countrey can ſhew you that very Plane tree, on which *Marſyas* the muſician hung himſelfe in a melancholly mood, for that he was overmatched in his owne cunning and profeſſed skill, by *Apollo*: and ſurely like it is,
E that even then he made choiſe of that tree for the bigneſſe. Over and beſides, in the Iſland Delos, there is a Date tree to be ſeen, which hath remained there ever ſince that the ſaid god *Apollo* was borne and reared there. The wild Olive tree at Olympia (whereof *Hercules* ware the firſt coronet or guirland) is kept and tended ſtill with great devotion. The very ſame Olive tree alſo (by folkes ſaying) continueth this day at Athens, which ſprung up at the very time that *Minerva* and *Neptune* ſtrove togither about giving the name to the citie of Athens. And thus much of long-lived trees.

Contrariwiſe, Pomegranat trees, Fig trees, and Apple trees, live a very ſhort time: & of theſe, the haſtie kind or Ienitings, continue nothing ſo long as thoſe that bear and ripen later: neither yet thoſe that carie ſweet fruit, laſt ſo well as they that bring foorth ſower. The Pomegranat tree
F alſo with the more pleaſant fruit, is ſhorter lived than the other. The like is to bee ſaid of Vines, and namely, ſuch as bear greater burden of grapes and yeeld moſt wine. Howbeit *Græcinus* ſaith, That there have been vine trees knowne to live threeſcore years. It ſeemeth alſo, that trees which come up in wateriſh and moiſt places, are not of any long continuance, but ſoone die. In deed Bay trees, Apple trees, and Pomegranat trees, do age & looke old quickly; howbeit, they ſpring

fresh againe from the root. Well then, the Olive trees hold out life and live very long: for after the common opinion and agreement of all writers, they continue ordinarily 200 years. There is a little hill named Carne within the territorie of Tusculum, not far from Rome citie side, clad and beautified with a goodly grove and tuft of Beech trees, so even and round in the head, as if they were curiously kept, cut, and shorne artificially with garden sheares: which grove was consecrated in old time to *Diana*, by the common consent of all Latium, which did their devotions there. In it there was one especiall faire tree above the rest, which *Passienus Crispus*, a man in our daies of great authoritie (as having been twice Consull in his time, and reputed an excellent Oratour, who also afterward mounted to higher place of reputation by marrying *Agrippina* the Empresse, by which match he became father in law to *Nero* the Emperour) cast a fancie and extraordinarie liking unto: insomuch as he was wont not onely to take his repose and lie under it, to sprinkle and cast wine plentifully upon it, but also to clip, embrace, and kisse it otherwhiles. Neare adjoyning as a neighbour to the said grove, there is an Holme, which of it selfe alone is much renowmed: it beareth in compasse about the butt thereof 35 foot, and sendeth out ten monstrous big armes from the bodie, which may goe well enough for as many trees, and those every one so great as it is wonderfull. Surely this one tree alone (a man would say) resembled a whole woood.

Moreover, there is nothing more certaine than this, that Ivie killeth trees. The like is to be said (in some sort) of the Misselto, although it is generally thought, that the harme thereby is not so soon seen. And this you must thinke, that this Misselto is not to be taken for the fruit of a tree, and therefore as great a wonder it is in nature, as any other: for some things there be, that not willing to grow out of the earth, engender in trees; and having no proper place of their own habitation to seat themselves in, sojourne as it were and make their abode with others, and of this nature is the Misselto. Also, in Syria there is a certaine hearbe named *Cadytas, which windeth about, not trees onely, but also very bushes and thornes: likewise, all about the pleasant vale Tempe in Thessalie, you shall have a kind of Ferne called Polypodie, to doe the same: also, the Pulse named Dolychos, which is Fasels or Kidney beanes, and the wild running-laced Thyme, Serpyllum. Semblably, that which the Greeks call Phaunos: the very same, that after a man hath cut and proined the wild Olive, engendreth thereupon. The like is to be said of Hippophestion, which groweth upon the Fullers thorne or thystle: it beareth certaine little heads and hollow knobs with nothing in them, small leaves, and a white root: the juice whereof is singular good to evacuate and purge the bodie, for the diversion of ill humors, in the falling sickneſse. But to returne againe to Misselto, there bee three kinds thereof. For that which groweth on the Firre and Larch tree, is called Stelis in Euboea, and Hyphear in Arcadia. And as for that, which properly is Misselto indeed, most men are of opinion, that it groweth fast to the common Oke, the wild Robur, the Holme, wild Plumtree, and the Terebinth, & not lightly upon any other trees. Howbeit, in greatest plentie it is seene upon the Oke, and that is named Dryos Hyphear. A difference there is in the Hyphear and Misselto, on what tree soever they are found (except the Holme and common Oke) in regard of the savor, which is strong & stinking in the one more than the other. The leafe in them both hath no pleasant smell, and in the Misselto it is bitter, clammie, and viscous besides. Of the twaine, Hyphear yet is the better to feed sheepe and such cattell fat: only at the first it purgeth yll humors, and maketh them to scoure apace, but afterwards it fatteth them; I meane such as were able to beare the said purgation. But in case any of them were deepely tackt and infected with the rot, or other inward consuming disease, they can never endure the taking of the said Hyphear, but they die upon it. The onely fit time for this kind of curing them, by the way of purging, is in Summer, & that for fortie daies space together. There is moreover, by mens saying, another difference in Misselto: for that which groweth upon trees, shedding their leaves in winter, looseth also his owne leaves; but contrariwise, it continueth alwaies greene upon such trees as hold their leaves all the yeare long. Moreover, set or sow this Misselto which way soever you will, it will never take and grow: it commeth onely by the mewting of birds, especially of the Stockdove or Quoist, and the Blackbird, which feed thereupon, and let it passe through their bodie. And this is the nature of it, unlesse it bee mortified, altered and digested in the stomacke and belly of birds, it will never grow. It exceedeth not at any time a cubit in heigth, notwithstanding it be alwaies greene and full of braunches. The male beareth a certaine graine or berry: the female is barrain and fruitlesse. But sometimes neither the one nor the other beareth at all.

* Some take this for *Cassutha*, or *Cuscuta*, *i.* Doder.

Now

A Now as touching Birdlime, it is made of the berries of Miſſelto, gathered in harveſt time before they are ripe; for if they ſhould tarie ſtill to take ſhowres of raine, well might they thrive and encreaſe in bigneſſe, but their ſtrength and vertue would be gone cleane, for ever making any ſuch glew or birdlime aforeſaid. Beeing ſo gathered, as is beforeſaid, they muſt be laid abroad a drying, and when they be once drie, they are braied or ſtamped, and ſo put in water to ſteep, and let to putrifie for the ſpace of twelve daies or thereabout. This one thing yet in the whole world + is the better for putrefaction, and ſerveth to good purpoſe. When this is done, the ſaid berries thus putrified and corrupt, are beaten or punned once againe with mallets, in running water; by which meanes when they are husked and turned out of their skins, the fleſhie ſubſtance within, becommeth glutinous and will ſticke too, in manner of glew. This is the way to make birdlime B for to catch poore birds by their wings, entangled therewith; which fowlers uſe to temper and incorporate with the oile of Walnuts, when they liſt to ſet limetwigs to take foule.

And foraſmuch as wee are entred into a diſcourſe as touching Miſſelto, I cannot overpaſſe one ſtrange thing thereof uſed in Fraunce: The Druidæ (for ſo they call their Divinours, Wiſe men, & the ſtate of their Clergie) eſteeme nothing more ſacred in the world, than Miſſelto, and the tree whereupon it breedeth, ſo it be on Oke. Now this you muſt take by the way, Theſe Prieſts or Clergie men choſe of purpoſe ſuch groves for their divine ſervice, as ſtood only upon Okes; nay they ſolemnize no ſacrifice, nor perform any ſacred ceremonies without branches & leaves thereof, ſo as they may ſeeme well enough to be named thereupon Dryidæ in Greeke, which ſignifieth as much as the Oke-prieſts. Certes, to ſay a truth, whatſoever they find growing upon that C tree over and beſides the owne fruit, be it Miſſelto or any thing elſe, they eſteeme it as a gift ſent from heaven, and a ſure ſigne by which that very god whome they ſerve giveth them to underſtand, that he hath choſen that peculiar tree. And no marveile, for in very deed Miſſelto is paſſing geaſon and hard to be found upon the Oke; but when they meet with it, they gather it very devoutly and with many ceremonies: for firſt & foremoſt, they obſerve principally, that the moon be juſt ſix daies old (for upon that day they begin their moneths and new yeares, yea and their ſeverall ages, which have their revolutions every thirtie yeares) becauſe ſhee is thought then to be of great power and force ſufficient, and is not yet come to her halfe light and the end of her firſt quarter. They call it in their language All-Heale, (for they have an opinion of it, that it cureth all maladies whatſoever) and when they are about to gather it, after they have well and duly pre- D pared their ſacrifices and feſtivall cheare under the ſaid tree, they bring thither two young bullocks milke white, ſuch as never yet drew in yoke at plough or waine, & whoſe heads were then and not before bound, by the horne: which done, the prieſt arraied in a ſurpleſſe or white veſture, climbeth up into the tree, and with a golden hook or bill cutteth it off, and they beneath receive it in a white ſouldiours caſſocke or coat of armes: then fall they to kill the beaſts aforeſaid for ſacrifice, mumbling many oraiſons & praying devoutly, That it would pleaſe God to bleſſe this gift of his to the good and benefit of all thoſe to whome he had vouchſafed to give it. Now this perſuaſion they have of Miſſelto thus gathered, That what living creature ſoever (otherwiſe barraine) doe drinke of it, will preſently become fruitfull therupon: alſo, that it is a ſoveraign countrepoiſon or ſingular remedie againſt all vermine. So vaine and ſuperſtitious are many nations E in the world, and oftentimes in ſuch frivolous and fooliſh things as theſe.

THE XVII. BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

Chap. I.

The wonderfull prices of some trees.

AS touching the nature of all those trees, which of their owne accord doe grow, as well upon the maine land as the sea coasts, we have already treated sufficiently. It remaineth now to discourse of those, which (to speake more truly and properly) are made rather and forced by Art and wit of man, than otherwise come by nature and of themselves. But before I enter into this treatise, I cannot chuse but marveile how it is come to passe, That those trees, which for necessitie & need we having taken from the wild and bruit beasts, and possessed in common with them (considering that men maintaine fight and scramble with them for the fruits that fall, yea and otherwhiles with the foules of the aire, about those which hang upon the tree) should grow to so excessive a price, as to be esteemed among the principall delights and dainties of this world? And that this is so, appeareth by that most notable example (in mine opinion) of *L. Crassus* and *Cn. Domitius Ænobarbus*. This *L. Crassus* (a right renowmed Oratour of Rome as any one of his time) had a stately and sumptuous dwelling upon mount Palatine: howbeit that house of *Q. Catulus* (who defeated in battaile the Cimbrians togither with *C. Marius*) went beyond it a faire deale in magnificense; and stood likewise within the pourprise of the same mount. But the goodliest and fairest pallace known in that age, was that of *C. Aquilius* a gentleman or knight of Rome, situate upon the hill of Osiers, called Viminalis: in regard whereof, there went a greater name of him, than for all the skill hee had in the civile Law, which was his profession. Yet of all those three, *Crassus* only was challenged and reproched for that foresaid house of his. And in this manner is the storie delivered: *Crassus* and *Domitius* (great personages both, and descended from most noble houses in Rome) after they had been Consuls, happened also to be chosen Censors together: and this fell out to be in the yeare after the foundation of the cittie 662: but during this magistracie of theirs, there passed many a foule day and bitter fit between them; so dissonant were their natures, & their conditions so farre unlike. Now it fortuned upon a time, that *Cn. Domitius* (as he was a hot and hastie man by nature, & carried an inward hatred besides in his heart, which soon is kindled & set on fire, yea & most insatiable, upon emulation & envie between concurrents, such as they two were) reproved *Crassus* very sharply for his excesse in expence, & namely, that any Censor of Rome should dwell in so stately and sumptuous a palace as he did; and ever and anon made offer to buy the house, and pay him downright for it *100 millions of Sesterces: whereat *Crassus* (being a man quicke of spirit, of a prompt and present wit, finely conceited withall, and not to seeke for a readie answer) tooke him at his word and accepted of the offer; reserving onely sixe trees that grew about his house. Tush quoth *Domitius*, replying againe, take those trees away, and take all; if they be gone, I will none of the house though I might have it for a single denier. Then *Crassus*, having gotten the vantage and start of him, rejoyned & came upon him thus: Tell me now, I pray you, good *Domitius*, whether of us twaine giveth a scandalous example to the world? whether am I my selfe (I say) offensive, and deserve to be taxed & noted by mine owne Censorship, who can be content to live quietly & lovingly among my neighbours in mine owne house, and that house which came to me by way of inheritance from my father;

* *Millies Sestertium.* An incredible price for a dwelling house: & therfore as *Budæus* thinketh, this place must be corrected, by conference with *Val. Max.* who for (*millies*) hath (*sexagies*) which amounteth little more thã to the 20 part of the other summe.

A father; or you rather, that for ſix trees bid 100 millions of Seſterces? Now, if a man bee deſirous to know, what theſe trees might be? truly they were no other but ſixe Lote-trees, very faire and beautifull indeed, but there was nothing in them commendable, ſave only their ſpreading & caſting a goodly ſhade. And verily, *Cæcina Largus*, a Nobleman & principall citizen of Rome, uſed many a time and often (I remember well) to ſhew me when I was a young man, thoſe trees about his houſe. And ſince our ſpeech hath been of ſuch trees as live very long, theſe I wote well, continued for the ſpace of 180 yeares after *Craſſus* death, unto the great fire that *Nero* cauſed to bee made for to burne Rome; freſh and greene they were with good keeping, and looked young ſtill, like to have lived many a faire day more, had not that Prince haſtened the untimely death even of trees alſo [as well as of cittizens.] Now leaſt any man ſhould thinke, that all the ſumptuoſitie of
B *Craſſus* conſiſted onely in thoſe trees, and that the furniture otherwiſe of his houſe was but mean and ſimple, and could miniſter unto *Domitius* no matter of ſuch conteſting and reproofe, diſpoſed as he was to quarrell and find fault: Know he thus much, That the ſaid *Craſſus* had before that time ſet up in the open hall of that houſe, foure goodly pillars of Hymettian Marble; which in the yeare of his Ædileſhip were brought abroad to enrich and beautifie the Theatre, the Stage and Shew-place of the ſolemne plaies by him ſet out: for as yet there had not been in publicke place at Rome any marble pillar ſeene. Loe how lately is come up this exceſſive expence in rich and glorious building, ſo common in theſe daies. See (I ſay) how in thoſe times, faire trees beautified pallaces more than any thing elſe; inſomuch, as *Domitius* for the want of ſix trees onely, would not ſtand to the price that himſelfe firſt made, no not to buy his very enemie out of houſe
C and home with it. But no marvell if trees were accounted of ſo highly, ſeeing that our anceſtors in old time thought not ſcorne to take otherwhiles their ſurnames from them. Thus that brave and valiant ſouldiour came to be named *Fronditius*, who (maugre the beard of *Anniball*) ſwum over the river Vulturnus, with a chaplet of greene leaves (anſwereable to his name) ſet upon his head, and performed many feats of armes and worthie exploits againſt him. Thus they of the noble *Licinian* familie had for their addition *Stolons* (that is to ſay, the unprofitable waterſhoots that put forth from the root or tree it ſelfe, and never prove or come to any good.) And why ſo? For that one of the ſaid houſe deviſed the meanes to cleanſe trees and vines of ſuch ſuperfluous twigs (the practiſe and feat of cutting which away, is called Pampinatio) and thereupon was one *Licinius* firſt ſurnamed *Stolo*. Moreover, our predeceſſors in auncient time made good ſtatutes
D and ordinances for the maintenance of trees: and expreſſely provided it was by the lawes of the twelve Tables at Rome, in theſe words, *That whoſoever made wilfull waſt, and cut downe any trees growing in another mans ground, ſhould be peined in the court for a treſpaſſe done; and forfeit for every ſuch tree, five and twentie pound of braſſe money*. But what ſhould we thinke of this? Did thoſe lawmakers, trow yee, ſuppoſe or imagine that other wild trees would ever have growne to that high reckoning abovenamed, and which now they are come unto, who valued fruitfull trees at no greater price, & ſet the penaltie for the treſpaſſe, ſo low? But never marvell we any more hereat, conſidering to what a proportion Apple-trees and ſuch like are riſen unto. For there bee many of them here about the citie of Rome, in the villages near adjoining, which are ſet for a yearly rent of two thouſand Seſterces; and one of them yeeldeth more profit and revenue by the year to the
E owner, than a pretie ferme in times paſt of good domaine, to the landlord. Hereupon came the invention of grafting trees: for this purpoſe have wee ſuch baſtard fruits entermingled one with another, of ſundrie kinds; as if Apples and other fruits were not for poore men to eat, but grew onely for the rich. Hence forward now therefore will we ſhew the right, perfite, and abſolute manner how to order and cheriſh them, that it may appeare by what meanes eſpecially, ſuch annuall commoditie can bee made of them, as is beforeſaid. For the better performance of which diſcourſe, I meane to leave the common and ordinarie way; neither will I handle the uſuall and vulgar manner of that point in husbandrie, wherein every man is perfect, and whereof no man maketh queſtion: but deliver ſuch matters onely, as be uncertaine and doubtfull, whereby oftentimes folke are deceived and beguiled. For, to breake my head or buſie my braines in needleſſe
F trifles, and therein to affect a kind of curioſitie, was never my manner yet, nor is it any part of my meaning and intention now. But before I doe enter into particulars, my purpoſe is to treat in generalitie of this matter, and touch breefely the conſideration of heaven and earth both, ſo farre forth as may concerne in common all kinds of trees whatſoever.

CHAP.

Chap. II.

Of the nature of the Skie respective unto trees: and what quarter thereof they should regard.

TRees generally doe like best that stand to the Northeast wind: for it nourisheth them well, causeth them to spread thicke and grow every way in length and breadth; and withall maketh the timber more fast and strong. But in this rule most men doe erre, and be much deceived: for in underpropping Vines, the forkes would not bee set opposite against that wind to hinder the blast thereof; a point that is to be observed in regard of the North wind onely. Moreover, wee find by experience, that if trees have a kindly winter and cold season in their due time, their wood will be more firme, and so likewise will they bud and shoot out best: otherwise, if the warme Southerne winds blow upon them much, yee shall have the trees prove soft and feeble, and their blossomes come to nothing, blouming as they doe before time. For if it chaunce, that presently after their flowers be fully out and readie to shed, there fall any store of raine, the fruit is quite gone for that yeare. And as for Almond trees and Peare trees, if it be but close and cloudie weather onely, without any raine, or the wine stand South when they flower, sure they bee to loose their fruit. Certes, a glut of raine in May, at what time as the Brood-hen star called Virgiliæ doth arise, is exceeding hurtfull to Vines and Olive trees: for then is the very season of their knitting or conception. Then bee the foure decretorie or criticall daies, that give the dome of Olive trees, either to good or bad: this is the Southerly point of filthie, foule, and glowmie weather, whereof wee have spoken before. Moreover, all manner of graine feeleth the inconvenience of Southerne wind at the time of their ripening. Well may corne make haste and ripen sooner, but it shall never have the kind maturitie and perfection as it ought. As for the cold pinching black frosts and Northerne winds, which blow out of season, come they early or come they late, they be hurtfull all. But if the wind stand Northeast in winter, there is nothing so good generally for all fruits of the earth. And verily, a good shower now and then during that time, will do no harm; and that men wish for raine then, the reason is evident: for why? trees with bearing of fruit, are drawne drie and have lost their naturall moisture, with shedding their leaves they bee poore and feeble; so that it is kind for them to be hungrie then, and to have a greedie appetite to new food, which is raine. Now if the winter be open and warme withall, that so soone as the trees have done bearing, they rest not betweene, but conceive againe presently upon it (that is to say, bud & spurt anew, yea, and fall afresh to blossome, whereby they have another evacuation that way also, to spend their sap and radicall moisture) we find by experience, that there is nothing in the world so bad for them. Nay, if many such yeares come together, immediately one after another, the verie trees themselves will die; for who can looke for better, when they are thus pined and famished? He then *whosoever he was that said, Husbandmen were to wish for faire winters: surely hee was no friend therein to trees, nor never praied for them: neither are wet midsummers good for Vines. But in truth, That winter dust should cause plentifull harvest, was a word spoken in a braverie, and proceeding from a pregnant wit and jollie spirit: For otherwise, who knoweth not, that every man (wishing well to trees and corne indifferently) praieth, That snow might lie long upon the ground? The reason is, for that not only it keepeth in and encloseth the vitall breath & soule (if I may so say) of the earth, readie to exhale out and vanish away, yea, and driveth it back again into the blade and root of corne, redoubling therby the force and vigor thereof: but also because it both yeeldeth liquour and moisture thereunto gently by little and little, and the same withall fine, pure, and passing light: considering, that snow is nothing else but the fome or froth of raine-water from heaven. This humor therefore, not falling forcibly all at once to drowne the root, ne yet washing away the earth from it (but distilling drop-meale a little at once, in that proportion and measure as thirst requireth and calleth for it) nourisheth all things, as from a teat or pap; nourisheth (I say) and neither drencheth nor overfloweth them. The earth also for her part, by this meanes well soaked, swelleth and hooveth as it were with a leaven, and lieth thereby more light and mellow: thus being full of juice and moisture it selfe, & not barren, but well replenished with seeds sowne, and plants suckled, thus continually in her womb; when the open time of the spring is once come to discharge her, she sheweth her selfe fresh and gay, and willingly entertaineth the warme weather of that season.

*Virgil.

By

A By this meanes eſpecially, we ſee how corne liketh well upon the ground, and thriveth apace every where, unleſſe it be in climates where the aire is alwaies hote, as in Ægypt. For continuance and ordinarie cuſtome alone effecteth the ſame there, which the ſeaſon of the time, & moderate temperature of the aire elſewhere. And in one word, bee the place whatſoever, paſſing good it is to keepe away the thing that is hurtfull. For in the moſt parts of the world it happeneth, That when either corne is winter-prowd, or other plants put forth and bud too earely, by reaſon of the mild and warme aire; if there follow any cold weather upon it, all is nipped, blaſted, and burnt away. Which is the cauſe, that late winters doe harme unto the wild trees alſo in the forreſt. The more paine and ſorrow likewiſe ſuch trees abide, by reaſon of their owne thick branches ſhading one another, and not eaſily admitting the warme Sunne; and deſtitute they are be-
B ſides of mans helping hand to cure them: for growing as they doe in wild and deſart forreſts, impoſſible it is to lap and wrap them about with wreaths and thumb-ropes of ſtraw, and ſo to cheriſh and defend them when they bee yong and tender. Well then, to conclude this matter, Winter raine principally is ſeaſonable and good for all plants: and next to it the dewes and ſhowers that fall immediately before their ſprouting time. A third ſort alſo there be of ſhowers that come when fruits hang on the tree, and are in their growth, yet not too ſoone, namely, before they bee ſtrong and able to abide ſome hardneſſe.

As touching trees which be late-ward and keepe their fruit long ere they ripen, ſuch alſo as require ſtore of nouriſhment and more food ſtill, as namely, the Vine, the Olive, and Pomgranat trees; it is good for them to be watered with raine in the latter end of the yeare. And to ſay a truth,
C every kind of tree requireth a ſeverall raine by it ſelfe, in due ſeaſon, for that ſome ripen their fruit at one time, and ſome at another: ſo as a man ſhall ſee ordinarily the ſelfeſame ſhowers, to hurt one ſort, and to helpe another: yea, and that diverſe effect is to be ſeene in trees and fruits of the ſame kind, as for example, in Pyrries: for the late-ward of them call for raine at one time, and the haſtie or forward at another, and yet indifferently all doe require alike the ſeaſonable ſhowers of Winter, as alſo thoſe before budding time. In which regard, the winds Northeaſt are better than the Southerne, and ſuch Winters be moſt kindly. Semblably, by the ſame reaſon the Mediterranean or mid-land parts of any countrey are for this purpoſe preferred before the maritime or ſea-coaſts (as being for the moſt part colder:) the high and hillie regions before the plains and valleies: and laſt of all, the night raines are held to be more profitable than thoſe that fall by day
D time: for lands new ſowne, and any young plants, enjoy more benefite by ſuch ſhowers in the night, for that the Sunne commeth not ſo preſently upon them againe to drie and drinke up all the moiſture.

Hereunto ought to be annexed the conſideration of Vine-yards, Hort-yards, and Groves, as touching their ſituation, and namely, what part of the heaven they ſhould regard. *Virgill* condemned altogether the planting of any trees, reſpective to the Weſt: ſome have choſen that quarter before the Eaſt. And this have I obſerved, that in moſt mens opinion, the South is beſt. But if I ſhould ſpeake what is mine owne conceit indeed, there can no generall and infallible rule be given concerning this point, for to hold alwaies. All our skill and art herein muſt bee directed by the nature of the ſoile, the diſpoſition of the climate and temperature of the aire. In Affricke,
E although it be nothing profitable for Vine-yards to be planted ſo as they looke into the South, yet kind it is and wholeſome for the Vine-planter and husbandman, by reaſon that all Affricke lieth under the Meridionall or South climate. And therefore he that ſhall ſet Vines there, either into the Weſt or North (howſoever *Virgill* alloweth not of the Weſt) ſhall make an excellent medley betweene the temperature of that aire and the nature of ſoile together. As for the North no man ſeemeth to make any doubt or queſtion, but that Vines ſo planted, will proove right well. And verily, there are not found any Vines to proſper, or to beare more fruit in all Italie, than in that tract which lieth on this ſide, and under the Alps: and there for the moſt part the Vineyards are ſo planted.

Moreover, in this caſe the winds would be much conſidered: for in Languedoc or the province
F of Narbone, in Liguria and part of Tuſcane, they are reputed unskilfull husbandmen that plant any Vine-yards directly upon the Northweſt wind: but it is counted contrariwiſe a ſpeciall point of providence and good husbandrie, to caſt it ſo, as the ſaid wind may flanke it on the ſide. For this is the wind, which in thoſe quarters qualifieth and tempereth the exceſſive heat of the Summer: howbeit, many times, ſo violent and bluſterous hee is, that hee beareth downe before him

the

the roofe of many a houſe, and carieth it cleane away.

Chap. iii.

The ſocietie of the skie and aire with the earth, reſpective to trees.

SOme men doe force the skie for to be obedient and conformable to the earth: as namely, when planting in drie grounds, they have regard to the Eaſt and North: and contrariwiſe, when in moiſt places they reſpect the South. Moreover, it falleth out, that they bee driven otherwhiles to follow the nature of the very Vines, and thereby to bee ruled: whereupon, in cold ground they plant ſuch as be of the haſtie kind, and ſoone ripen their grapes; to the end that they may come to their maturitie and perfection, before cold weather comes. As for ſuch Vines and trees bearing fruit, as cannot abide dewes, thoſe they ſet into the Eaſt, that the Sunne may ſoone diſpatch and conſume the ſaid dew: but looke what trees doe love dewes, and like well therewith, thoſe they will bee ſure to plant againſt the Weſt, or at leaſtwiſe toward the North, to the end they may enjoy the full benefite thereof. All others againe (grounding in manner upon naturall reaſon onely) have given counſell to ſet as well Vines as Trees, into the Northeaſt. And *Democritus* verily is of this mind, that ſuch fruits will be more pleaſant and odoriferous.

Chap. iiii.

The qualitie of ſundrie regions.

AS touching the proper ſeat of the Northeaſt wind, and of all other winds, wee have ſpoken alreadie in the ſecond booke: and our purpoſe is in the next following, to treat of the riſing and falling of ſigns and notable ſtars, of other Aſtronomicall points alſo concerning heaven. Now in the mean time for this preſent, it is ſufficient, that in the former rule of the North wind, wee ſeeme to reſt and reſolve upon the apparent and evident argument of the wholeſome and healthfull climate of the heaven: for as much as we ſee, that evermore all ſuch trees as ſtand into the South, ſooneſt ſhed their leaves. The ſame reaſon alſo is to bee given of thoſe that grow upon the ſea-coaſts: and albeit in ſome places the winds blowing from thence, and the very aire of the ſea be hurtfull, yet in moſt parts the ſame are good and profitable. Certaine plants and trees there are, which take pleaſure to be remote from the ſea, and joy to have the ſight of it only a farre off: ſet them neerer to the vapours and exhalations aſcending from thence, they will take harme and miſlike therewith. The like is to be ſaid of great rivers, lakes, and ſtanding pooles. As for thoſe which we have ſpoken of, they either burn their fruit with ſuch miſts, or refreſh & coole ſuch as be hote with their ſhade, yea, and take joy and proſper in the froſt and cold. And therfore to conclude this point, the ſureſt way is, to beleeve and truſt upon experience. Thus much for this preſent, concerning the Heaven: our next diſcourſe ſhall be of the Earth and Soile, the conſideration whereof is no leſſe difficult to be handled than the other.

Firſt and formoſt, all grounds are not alike good for trees and moſt kinds of corne. For neither the blacke mould (ſuch as Campaine ſtandeth much upon) is in all places beſt for Vines; or that which fumeth and ſendeth up ſmall and thin miſts: neither is the red veine of earth any better, howſoever there bee many that commend it. The white earth or chalkie marle, the clay alſo within the territorie of Alba and Pompeij, for a vineyard, are generally preferred before all other countries (although they bee exceeding fat, which in that caſe is otherwiſe uſually rejected.) On the other ſide, the white ſand about *Ticinum: likewiſe, the black mould or grit, in many places, as alſo the red ſandie ground, although it be well mingled and tempered with fat earth, are all of them nothing to the purpoſe for encreaſe and fruitfulneſſe. And herein muſt men take heed, becauſe oftentimes their judgement may faile when it goeth but by the eie: for we muſt not ſtreight waies conclude, that the ground is rich and battle, whereon we ſee goodly faire and tall trees to grow, unleſſe it be for thoſe trees onely: for where ſhall we meet with any, higher than the Firre? and is there a tree againe that poſſibly can live where it doth? No more is ranke graſſe & plentifull forrage a true token alwaies of a good ground: for there is no better paſture nor grafting to be found than in Almaine; and yet dig but up the greene ſourd and the thinneſt coat of turfe that may be, ye ſhall preſently come to barren ſand under it. Ne yet is it by & by a moiſt ground, that hath upon it deepe graſſe and hearbes ſhooting up in height: no more verily, than a fat

*i. Pavie.

and

A and rich ſoile is knowne by ſticking to ones fingers; as appeareth plainely in all ſorts of clay. And verily, no earth doth fill up the trenches even againe, out of which it was caſt, that therby a man might find out whether the ground bee ſad, or hollow: and generally all ſorts thereof will cauſe yron to ruſt that ſhall be put into it. Moreover, there is no weighing of earth in ballance, to know by that meanes which is lighter or heavier: for who could poſſibly ever ſet downe the juſt weight that earth ſhould have? Againe, the ground that is caſt up into bankes by the overflow of great rivers, is not alwaies commendable: ſeeing that ſome plants there be that decay, if they be ſet in water. And ſay that ſome ſuch banke were ground good ynough, yet it continueth not ſo long; unleſſe it be for Willowes and Oiſiers onely. But if you would know a rich ground indeed, one of the beſt arguments and ſignes thereof is this, when you ſee it to bring forth a thick and ſtrong
B haulme or ſtraw, ſuch as uſually groweth in that noble territorie Laborine within Campaine; which is of that bigneſſe, that the people of the countrey uſe it for fewell in ſteed of wood. Now, this ground, ſo good as it is, where and whenſoever we have found it, is hard ynough to be tilled, and requireth great labour and husbandrie, putting the poore husbandman to more paines in manner with that goodneſſe of it, than poſſibly hee could have with any defects and imperfections thereof. For even the hote earth, called by the name of Carbunculus, which uſeth to burne the corne ſowne thereupon, may be helped & remedied (as it is thought) by ſetting it with plants of poore and hungrie Vines. The rough gravell ſtone which naturally will crumble as grit, many writers there be that allow and commend, for Vines. As for *Virgil*, he findeth no fault with the ground that beareth ferne and brake, for a Vineyard. The earth that is brackiſh, and ſtandeth
C much upon ſaltpetre, is thought to be more ſound for many plants than others; and in regard of vermine that uſe to breed therein, much ſafer alſo. Neither do high bankes and hils remaine untilled and naked for want of good husbandrie, if ſo be a man have the caſt of it, to eare and break them up skilfully. As for the plaines, they are not all of them expoſed to the Sunne or ſubject to the wind more than need requireth. And to ſpeake of froſts, miſts and fogs, there be Vines (as we have ſaid alreadie) which are nouriſhed and fed with them. And to conclude, hereby wee may ſee, that in every thing there is ſome one deepe ſecret or other, wherein it behoveth each man to employ his ſpirit and ſet his mind for to ſearch them throughly and find them out. What ſhall wee ſay then to this, That oftentimes thoſe things which have been approoved by long experience and many obſervations, become otherwiſe, and chaunge their uſuall manner? In Theſſalie
D about Lariſſa, the whole region, by reaſon of a lake that was let out and drained drie, prooved much colder: and the Olives which there grew before, left bearing and died all, upon it. In like ſort, neare unto Ænos, the Vines were all ſcorched and burnt, by occaſion, that the courſe of the river Ebrus was brought neare unto them, an accident that beforetime never befell unto them. Semblably, about the citie Philippi, the whole countrey being made drie by ſluces and trenches artificiall; altered withall the whole diſpoſition of the aire and weather, and chaunged the verie habite of the heaven above their heads. But in the territorie of Syracuſa, the forraine Coloners that thither came to inhabite and practiſe husbandrie, by ridding the ground from all the ſtones, marred all the corne in the countrey; ſo mirie and durtie it was by that meanes, untill ſuch time as they were driven to lay the ſtones againe where they had them. In Syria, the husbandmen goe
E lightly over with their plough, and take no deepe ſtitch in making their furrowes, for feare of the ſtonie rocke lying ebbe under the good ground, which in Summer ſeaſon would burne all their graine and ſeed ſowne there. Now, there be certaine parts of the world, where a man ſhall ſee one and the ſame effect to proceed both of extreame heat, and alſo of exceſſive cold. Thracia is exceeding cold, and thereby plentifull in corne. Affricke and Ægypt be as hote, and yet come not after it for fertilitie in that kind. In Chalcia, an Iſland belonging to the Rhodians, there is one place above the reſt ſo fruitfull, that the Barley which was ſowed in the due time and ſeaſon of the yeare, they mow once, and preſently put it into the ground againe; which will be readie to be cut downe the ſecond time, with other corne in harveſt. In the Venafrane tract within the realme of Naples, the gravellie ground is thought meeteſt for Olive trees, and therin they bear moſt plen-
F tifully: contrariwiſe, about Bœtica in Spaine, the fatteſt ſoile is beſt for that purpoſe. The excellent grape that maketh the good Punicke wine, ripeneth ſoone upon the very rockes: but the Cæcube Vines ſtand ſoaked and drenched (as it were) in the mariſh low grounds of Pomptinum. See what a difference and diverſitie there is in cauſes, to make this varietie in ſundrie plots of ground! *Cæſar Vopiſcus* being convented before the Cenſors, and there pleading his cauſe, affirmed

med openly, that the plaines of Rosea were the very fat of Italie, and resembled the kell or leafe of a fed and franked swine: wherein (quoth hee) if a man left forkes or props to day, they will bee overgrowne and covered with grasse by to morrow. But surely, this ground is good for nothing but pasture. Yet notwithstanding, Nature would have us still to learne and grow skilfull every day more than other: and for that intent shee hath laid open the defects and imperfections of the ground, even there, whereas the commodities therof be neither so certain, nor so well known. And therefore let us in the first place speake of those faults for which the earth is blamed.

Chap. V.

Sundrie sorts of earth.

IF a man would know which is a leane, hungrie, bitter ground, there is no better experiment and proofe thereof, than by the blackish, misliking, and unkind hearbes growing thereupon: like as, when they come up scorched and burnt, they shew a cold soile: also, when they seeme illfavoured and unpleasant to the eie, the earth no doubt is soaked and drowned in wet. As for red sandie ground and cley, you need goe no farther than to your owne eiesight. And such soiles as these be, is of all other, hardest to bee wrought and tilled; they so clog and load both the harrow teeth and the plow-shares, with huge & heavie clods. Howbeit, the ground that is thus churlish to be eared and husbanded, is not alwaies bad and naught for encrease. But it fareth cleane contrarie with the pale and wan ashie earth, as also with the white sandie soile: for the barraine ground is soone found by a thicke and callous crust that it hath, even at the first dent of culter, or stroke of mattocke.

Cato setteth downe breefely, as his manner is, all the defects & faults of ground in these words: *Take heed* (quoth he) *of a rotten ground, and see that you sturre it neither with cart, nor touch it with beast.* What should wee thinke was his meaning by this tearme of his, that he should feare rotten ground so much, as to forbid in a manner to tread and goe thereupon? Let us call to mind the rottennesse that is in wood: and thereby shall we find those faults that he abhorreth and detesteth so much in earth. In good faith, by rotten earth hee understandeth drie, spungeous, and full of holes, rugged, hoarie, eaten, old, and hollow. So as in that one significant word (*Cariosa*) he said more than could be expressed possibly by any multiplicitie of language whatsoever. For if a man would rip up to the quicke the imperfections that are in grounds, he should find, that some peeces there be of it that may be tearmed truly old and overworne, not for any age (for who can say properly, that earth is subject to old age) but by reason of their naturall defects: in regard whereof, a ground may be weake, feeble, barren, and no longer good for to bring forth any thing. The same *Cato* judgeth, That ground to be principall which lieth at the foot of an hill, and runneth forth in manner of a plaine, into the South, which is the very situation of all Italie: and by a blackish and swart earth, which he calleth [*Pulla*] he meaneth a gentle, tender, & mellow soile. And this we will determine to be the best simply both for worke or tillage, and also for gaine and encrease. Now let us (if yee please) stand a little upon this word *Tenara*, [*i.* Tender] which he useth in this sence: you shall find a marvellous signification thereof: and that hee implieth thereby, as much as your heart can wish to be in a ground. That is it, which is so temperate in fertilitie, that is it which to bee wrought is so gentle, soft, pliable, and mellow; neither wet, nor yet drie and thirstie. Now doth this ground shine againe after the plough-share, resembling that veine of earth, which *Homer*, the very fountaine and spring of all good wits, reported to have beene engraven by a * god, in the armour [of *Achilles*:] adding moreover, that the said earth looked blacke withall: wherein he observed a wonderfull peece of workmanship, notwithstanding it was wrought in gold. This is that ground, I say, which being new broken and turned up with the plough, the shrewd and busie birds seeke after, and goe under the plough-share for it: this is it, that the verie Ravens follow the ploughman hard at heeles for, yea, and are readie for greedinesse to pecke and job under his verie feet. And here, in this place I cannot chuse but relate the opinion that is currant among our roiotous and delicate gallants: with some other thing also making for our purpose, in the discourse of this argument which wee have in hand. Certes *Cicero*, a man reputed (as hee was no lesse indeed) for a second light of all good learning and literature, Better are esteemed (quoth hee) the sweet compositions and ointments which tast of earth, than of saffron: where note by the way, that this great clerke chose to use the word

*Vulcane,

of

A of taſt rather than of ſmell, in ſuch odoriferous perfumes and mixtures. Well, to ſpeake at a word, ſurely that ground is beſt of all other, which hath an aromaticall ſmell and taſt with it. Now if we liſt moreover to be better inſtructed, what kind of ſavour and odour that ſhould be, which we would ſo gladly find in the earth; we may oftentimes meet with that ſent, even when ſhe is not ſtirred with the plough, but lieth ſtill and quiet, namely, a little before the ſun-ſetting, eſpecially where a rainbow ſeemeth to ſettle & pitch her tips in the Horizon: alſo, when after ſome long and continuall drought, it beginneth to raine; for then being wet and drenched therewith, the earth will ſend up a vapour and exhalation (conceived from the ſunne) ſo heavenly and divine, as no perfume (how pleaſant ſoever it be) is comparable unto it. This ſmell there muſt be in it when you ere it up with the plough: which if a man find once, he may be aſſured it is a right
B good ground; for this rule never faileth: ſo as (to ſay a truth) it is the very ſmell and nothing els, that will judge beſt of the earth: and ſuch commonly are new broken grounds, where old woods were lately ſtocked up: for all men by a generall conſent, doe commend ſuch for excellent. Moreover, the ſame ground for bearing is held to be farre better, whenſoever it hath reſted between, and either lien ley or fallow; whereas for vineyards it is cleane contrarie: and therefore the more care and diligence is to be emploied in chuſing ſuch ground, leaſt wee approove and verifie their opinion, who ſay, That the ſoile of all Italie is alreadie out of heart and wearie with bearing fruit. This is certaine, that both there and elſewhere, the conſtitution of the aire and weather, both giveth and taketh away the opportunitie of good husbandrie, that a man cannot otherwhiles doe what he would: for ſome kind of grounds there is ſo fat and readie to reſolve in-
C to mire and dirt, that it is impoſſible to plough them and make good worke, after a ſhowre of raine. Contrariwiſe, in Byzacium a territorie of Affricke, it is farre otherwiſe: for there is not a better and more fruitfull peece of ground lieth without dore than it is, yeelding ordinarily 150 fold; let the ſeaſon be dry, the ſtrongeſt teeme of oxen that is, cannot plough it: fall there once a good ground ſhowre, one poore aſſe, with the helpe of a ſillie old woman drawing the plough-ſhare at another ſide, will be able to goe round away with it, as I my ſelfe have ſeene many a time and often. And whereas ſome great husbands there be, that teach us to enrich and mend one ground with another, to wit, by ſpreading fat earth upon a leane and hungrie ſoile; and likewiſe by caſting drie, light, and thirſtie mould, upon that which is moiſt and over-fat; it is a meere follie and waſtfull expence both of time and travaile: for what fruit can he ever looke to reape
D from ſuch a mingle mangle of ground?

Chap. VI.

Of the earth which Britaine and Fraunce love ſo well.

THe Britaines and Frenchmen have deviſed another meanes to manure their ground, by a kind of lime ſtone or clay, which they call Marga, [*i.* Marle.] And verily they have a great opinion of the ſame, that it mightily enricheth it & maketh it more plentifull. This marle is a certaine fat of the ground, much like unto the glandulous kernels growing in the bodies of beaſts, and it is thickned in manner of marow or the kernell of fat about it.

E

Chap. VII.

The diſcourſe of theſe matters continued according to the Greekes.

THe Greekes alſo have not overpaſſed this in ſilence: for what is it that they have not medled withall? The white clay or earth wherewith they uſe to marle their grounds in the territorie of Megara, thoſe onely I meane which are moiſt and cold, they call Leucargillæ. Theſe marles (all the kind of them) do greatly enrich Fraunce and Britaine both, and therefore it would not be amiſſe to ſpeake of them more exactly. In old time there were two ſorts thereof, and no more: but of late daies (as mens wits are inventive every day of one thing or other) they
F have begun to find out more kinds, and to uſe the ſame: for there are now divers marles, the white, the red, the columbine, the clay ſoile, the ſtonie, and the ſandie: and all theſe are but two in nature, to wit, either hard and churliſh, or elſe gentle and fat. The triall of both, is knowne by the handling, and a twofold uſe they yeeld; either to beare corne onely, or elſe for graſſe and paſture alſo. The ſtonie or gravelly ſoile is good onely for to nouriſh corne; which if it be white

withall, and the pit thereof found among springs or fountaines, it will cause the ground to be infinite fruitfull; but it is rough in handling, and if it be laid too thicke upon the lands or leyes, it will burne the verie ground. The next to it is the red marle, called also Capnumargos, which hath intermingled in it a certaine small stonie grit full of sand: This stonie marle the manner is to breake and bruise upon the very lands; and for the first yeares, hardly can the straw be mowne or cut downe for the said stones. Lighter is this marle than the rest by the one halfe, and therefore the cariage thereof into the field is least chargeable. It ought to be spred and laid thin, and some thinke that it standeth somewhat upon salt. But both the one and the other will serve well for fiftie yeares, and the ground enriched thereby, will (during that time) yeeld plentie as well of corne as grasse.

Chap. viii.

Sundrie sorts of Earth and Marle.

OF those marles which are found to be fat, the white is chiefe; and thereof be many sorts. The most mordant and sharpest of them all, is that whereof we spake before. A second kind there is of chalkish clay, which our goldsmiths use [called Tripela:] this lieth a great depth within the earth, insomuch as many times men are driven to sinke pits an hundred foot deepe, for it; and those have a small and narrow mouth above, but within-forth and under the ground, they be digged wider, by reason that the vaine thereof runneth many waies, in manner of other mettall mines. This is the marle so much used in Britaine: the strength thereof beeing cast upon a land, will last fourscore yeeres; and never yet was the man known that herewith marled the same ground twice in all his life time. The third kind of white marle, is that which the Greekes call Glischromargon: it is no other than the Fullers chalkie clay mixed with a viscous and fattie earth. The nature of it, is to breed grasse better than to beare corne: for after one crop of corne is taken off the ground in harvest, before seed time is come for winter grain, the grasse will be so high growne, that a man may cut it down and have a plentifull after-math for hay: and yet all the while that it hath corne upon it, you shall not see it to beare any grasse besides. This marle continueth good thirtie years: if it be laid over-thicke upon a land, it choketh the ground in manner of * Cumine. The Columbine marle, the Gaules call in their language, by a name borrowed of the Greekes, Pelias, [*i.* Dove or Pigeon marle:] it is fetched out of the ground in clots and lumps, like as stones bee hewed out of quarries: with sunne and the frost togither, it will resolve and cleave into most thin slates or flakes. This marle is as good for corne as for herbage. As for sandie marle, it will serve the turne for want of other: yea & if the ground be cold, moist, and weely, the husbandman will make choise thereof before other.

* *Cymini. Turneb.* readeth *Signini*, & meaneth thereby shards of potters work and such like rubbish.

The Vbians, upon my knowledge, use to enrich their ground and make it more battle (though their territorie otherwise be most fertile) with any earth whatsoever; provided alwaies that it be digged up three foot deepe at least, and laid a foot thicke; a devise that no other countrey doth practise: howbeit this soile and manner of manuring, continueth good not above ten yeares. The Heduans and Pictones, have forced their grounds and made them most plentifull, with limestone: which is found also by experience to be passing profitable for vines and Olives.

To come now to the ordering of this peece of husbandry. The ground ought to be ploughed first, before marle of any sort bee cast upon it; to the end that the medicinable vertue and substance thereof, might the sooner and more greedily be received into it. Now forasmuch as marle is at the first over-rough and hard, not so free in the beginning as to resolve and turne into blade or grasse, it had need of some compost or dung to be mingled with it: for otherwise, be it never so rich, it will rather doe harme than good to the ground, by reason that it is yet straunge and not acquainted therewith: and yet helpe it this way as well as you can, it will not bring foorth any plentie the first yeare after it is laid on. Last of all, it skilleth much to consider the nature of the ground, which you meane to marle: for the drie marle, forteth well with a moist soile; and the fattie, hitteth that which is drie and leane. But when the ground is of a middle temperature between both, it mattereth not whether you use the white goldsmiths chalke, or the Columbine marle, for either of them will serve well enough.

Chap. ix.

The use of ashes upon lands: of Dung: what graine or pulse sowne, doth make the ground more plentifull, and what burneth it.

THe people dwelling beyond the Po, make such account of ashes for to enrich their grounds withall, that they prefer it before horse-muck, and such like: which dung (because they take it to be verie light) they burne also into ashes for that purpose. Howbeit (as we have said before) in one and the same corne-land, they use not ashes and mucke both at once: no more doe they cast ashes in hortyards for to nourish young trees; nor in fields, for some kind of corne. Some are of judgement, that grapes are fed with dust: who also doe cast dust upon them when they begin to bloome, yea and bestrew dust upon the roots as well of vines as other trees. Certaine it is, that in the province of Narbon they use so to doe; and they are assuredly perswaded, that grapes ripen better and the vintage commeth the sooner thereby: because in those parts dust doth more good than the Sunne.

As for mucke, there be divers sorts thereof, and in old time much use there was of it: for in *Homer* we read, that long ago the good old king [*Laertes*] was found laying soile and dung upon his land with his owne hands. The first that devised mucking of grounds, was (by report) *Augeas*, a king in Greece: but *Hercules* divulged the practise thereof among the Italians, who in regard of that invention immortalized their king *Stercutius* the sonne of *Faunus*. *M. Varro* esteemeth the dung of Blackbirds (gathered out of their bartons where they bee kept in mew) above all others. He highly magnifieth and extolleth it also, for that it bringeth forth so good forage to feed kine, oxen, and swine withall: avouching for certaine, that they will become fat beefe and porke with no meat sooner. Wee must thinke well therefore and hope the best of the world now adaies, since that our auncestors and forefathers so long ago had so great bartons and pens, that the dung of foules there kept, was sufficient to helpe their hard and hungrie grounds. In the second degree of goodnesse, *Columella* raungeth Pigeons dung gathered out of dovecotes: the third place hee giveth to that of Hens, and other land pullen, rejecting altogither the dung of water-foule. Howbeit all other authours (setting these two aside) attribute with one voice and consent unto the excrements of mans bodie, the greatest praise for this purpose. Some of them prefer mans urine, and namely when the haires of beast-hides have been soked therewith and quicke-lime togither in the Tanners pits. Others use urine alone by it selfe, only they mingle water with it againe, but in greater quantitie a good deale, than they (whose urine it was) did put to the wine when they dranke it: and good reason too; for more need there is now to correct and represse the malice thereof, considering that besides the native malignitie of the wine it selfe, mans bodie hath given and imprinted into it, a strong and unsavorie qualitie. Thus you may see how men labour, strive, and trie conclusions, to feed and enrich the very ground, the best way they can devise. Next unto the ordure and urine of mans bodie, the filthie dung of swine is most commended: only *Columella* condemneth it. Some praise the mucke of any four-footed beasts whatsoever, so they were fed with Tree-trifolie, called Cytisus. Others preferre the dung of Pigeons before any other; in the second place that of Goats; thirdly of sheepe; then of kine and oxen; and lastly of cart-jades, mules, asses, and such like. Thus you see as well what difference there was in times past, betweene this dung and that; as also what were the rules (so farre as I can gesse and learne) whereby they went, in the use and ordering thereof: for, to say a truth, the old way is best, even herein as well as in other matters. Over and besides, the practise hath been alreadie seene in some of our provinces (where there is so great store of cattaile bred) to riddle and sift their dung over their ground through sieves, in manner of meale; and so in processe of time it looseth not only the stinking sent and ill-favoured sight that it had, but also turneth into a pleasant smell, and looketh lovely withall. Of late, found it hath been by experience, that Olive trees doe like and prosper very well, if the ashes of lime-kills especially bee laid to their roots. *Varro*, among many other precepts, addeth and saith, That corne grounds would bee manured with horse dung, because it is the lightest; but medowes require compost that is heavier, and namely, made by beasts that have barley for their provender; for that such soile bringeth plentie of grasse. Some there be also, that prefer the dung made by horses, before the mucke of kine and oxen; likewise sheeps treddles, before goats dung; but asses mucke before all other, because they

they eat and chew their meat most leisurely. But daily experience teacheth the contrarie, and testifieth against the one and the other. And thus much as touching compost of mucke.

Furthermore, all men are of opinion, that nothing is better for the ground, than to sow Lupines therupon; provided alwaies, that before it cod, it be turned into the ground by the plough, spade, or two-piked yron forke: also when it is cut downe, to make it into wads or bottles, and so to burie them at the roots of trees, and vines especially. In countries where there are no cattell to better the lands, it is thought good to manure the same in stead of beasts dung, with verie hawme, straw, and ferne. *Cato* hath a devise to make an artificiall mucke or compost of litter, lupine straw, chaffe, beane stalkes, leaves and braunches both of mast-Holme and Oke. Hee saith moreover to the same purpose: Weed out of the standing corne, * Walwort [otherwise called Danewort] and Hemlocke; also from about osier-plots, plucke up rancke weeds, or ground-Elder; also Reeke or Sea-grasse, and dead leaves or braunches lying rotten under trees: when thou hast so done, strew and lay a course of them under sheepe where they be folded. *Item*, If thy vine begine to decay and wax leane, burne the shreads and cuttings of the owne, and turn the ashes under ground hard to the roots thereof. *Item*, Where thou meanest to sow any wheat or such like bread-corne, draw thy sheepe thither, and there fold them. He saith moreover, that the sowing of some graine is as good as a dunging to the ground: for these be his very words, The fruit it selfe of the earth is a batling to the earth, and namely, Lupines, Beanes, and Vetches, for they mucke the lands: like as on the contrarie side, Chiches doe burn the ground, both because they are plucked, and also for that they stand upon salt. Semblably doth Barley, Fœnigreeke, Ervile, and generally all kind of pulse which are pulled and not mowen down. *Item*, Take heed (quoth *Cato*) that you set no pepins or kernels, where you meane to sow corne. As for *Virgil*, he is of opinion, that the sowing of Line-seed for flax, likewise of Otes and Poppies, do burn corne-ground and pill it out of heart. He also giveth rules as touching mucke-hills, That they should be made in the open aire, within some hollow place where it may gather water; that they bee covered over with straw and litter, for feare they should drie in the sunne; and last of all, that they have a good strong stake of Oke pitched and driven in about the mids thereof, for so there will no snakes nor such like serpents breed and engender therein. Moreover, as touching the spreading of mucke, and mingling it with the mould of a land, it is exceeding good to do it when the wind setteth full West, so that the Moone then be past the full and in the waine. But this rule many have mistaken and not construed aright, supposing that they should so doe when the Westerne wind Favonius beginneth to rise, and namely in the moneth of Februarie only: whereas indeed most corne lands require this point of husbandrie in other moneths as well. But looke what time soever you list to doe it, be sure in any hand that the wind doe then blow from the Æquinoctiall point of the West, and that the moone then be in the waine, and drie withall. Have regard to these rules and observations, you will wonder to see the effects thereof, and what encrease the earth thereby will yeeld.

* *Herba Allen.*

Chap. x.

The planting and setting of trees: the manner how trees doe grow, by a Sion slived and plucked from the root.

NOw that we have alreadie sufficiently treated of the considerations as well of the aire and skie, as of the earth, belonging unto plants and trees; me thinkes it were to good purpose to discourse of the industrie and artificiall means that men have used to make trees grow: and verily we shall find no fewer kinds of them that come by mans hand, than of such as Nature it selfe hath brought forth; so kind and thankfull have we been to her, as to make recompence in this behalfe. First and foremost therefore this is to be noted, That all trees doe grow either of seed sowen, or of braunches growing to the tree and couched in the ground, or of an old stocke from whence new imps may sprout: also, either of a slip or sprig plucked from another tree, and so laid in the ground; or of a young shoot, twig, impe, or Sion, engraffed in the very trunke of a tree, slit and cloven for that purpose. For I cannot chuse but marveile much at *Trogus*, who was verily perswaded, That about Babylon the leaves onely of Date trees being set or sowen, would proove trees. Now whereas there bee so many devises aboveсaid for to nourish trees, this you must understand, that some trees there be which will grow by many of these waies before specified,

A fied, and others by them all. And verily the moſt part of this knowledge hath been taught by Nature her ſelfe: for firſt of all, we have learned by her for to ſow ſeed, by occaſion that we have ſeen ſome to fall from trees, which being received by the ground, have chitted, taken root, and lived. And in very truth, ſome trees there be that grow no otherwiſe, as Cheſtnut and Walnut-trees, excepting only thoſe that being cut downe, doe ſpring new againe from the root. Of ſeed alſo (although the ſame be farre unlike to others) thoſe alſo will grow; which are uſually planted otherwiſe, as for example, Vines, Apple trees, and Pyrries: for in theſe the ſtone and pepin within, ſerveth in ſtead of the ſeed; and not the fruit it ſelfe, as in thoſe before rehearſed, the kernels whereof [*i.* the fruit] are ſowne. Medlars likewiſe may come up of ſeed. But all the ſort of theſe that ſpring after this manner, be late ere they come forward, and ſlow in growth: they turne alſo
B to a degenerate and baſtard nature, & had need to be graffed anew ere they be reſtored to their owne kind: which is the caſe of Cheſtnuts alſo otherwhiles. Howbeit there be others for them againe, which (ſow or ſet them what way you will) never grow out of their owne kind, and ſuch be Cypreſſes, Date trees, and Lawrels: for the Lawrell commeth up by ſowing, by ſetting, and planting, after ſundrie ſorts. The divers kinds whereof, we have deſcribed alreadie. Of all which, the Lawrell Auguſta with the broad leaves, the common Bay tree alſo that beareth berries, as alſo the wild kind named Tinus, bee ordered all three after one and the ſame ſort. The manner whereof is this: The bayes or beries thereof, bee gathered drie in the moneth of Ianuarie when the Northeaſt wind bloweth: they are laid abroad thin to wither, one apart from another, & not in heaps, for feare they ſhould catch a heat. This done, ſome put them afterwards in dung; and
C being thus prepared and readie for to bee ſowne, they ſteepe them in wine. Others take and lay them within a large basket or twiggen panier, trample them under their feet in a brooke of running water, untill they be pilled and rid of their outward skins: for otherwiſe their skinne is of ſo tough and moiſt a ſubſtance, that it would hardly or not at all ſuffer them to come up and grow. After all this, in a plot of ground well and throughly digged once or twice over, a trench or furrow muſt be made a handfull deepe, and therein the berries ought to be buried by heaps, to wit, twentie or thereabout togither in one place: and all this would be done in the month of March. Lawrels alſo will grow, if their braunches or boughs be bended from the ſtocke and laid within the ground: but the Triumphall Lawrell will come up no other way but by ſetting a graffe or impe cut from it. As for the Myrtle, all the ſorts therof within Campaine, come of beries ſowne:
D but wee at Rome uſe to interre onely the boughs of the Tarentine Myrtle, growing ſtill to the bodie, and by that meanes come to have Myrtle trees. *Democritus* ſheweth another deviſe alſo to encreaſe Myrtles, namely, to take the faireſt and biggeſt beries thereof, and lightly to bruiſe or bray them in a mortar, ſo that the graines or kernels within be not broken; and then to beſmere with the batter or ſtamped ſubſtance thereof, a courſe cord made of Spart or Spaniſh broome, or els hempen hurds, and ſo lay it along within the ground. Thus there will ſpring therof, a marveilous thick hay or wall (as it were) of yong Myrtles: out of which, the ſmall twigs you may draw which way you will, yea and plant them elſewhere. After the like manner, folke uſe to ſow thorns or brambles for to make hedges and mounds, namely, by anointing ſuch another hempen rope with bramble blacke-berries, and interring the ſame. As for Bayes thus ſowen, when they come
E once to beare a darke and blackiſh leafe: Myrtles alſo, when their leaves bee of a wine colour, to wit, of a deepe red (which commonly happeneth when they be three yeers old) it will be time to remoove and tranſplant.

Among thoſe plants and trees that are ſowen of ſeeds, *Mago* maketh much ado, and is foully troubled about thoſe trees that beare nuts, & ſuch like fruit in ſhels: For to begin with Almonds firſt, he would have them to be ſet in a ſoft clay ground that lieth into the South: and yet he ſaith againe, that Almond trees love a hot and hard ſoile; for in a fat or moiſt ground, they will either die or els wax unfruitfull. But above all, he giveth a rule to chuſe Almonds for to ſet or ſow, that be moſt hooked, and eſpecially ſuch as were gathered from a young tree: alſo he ordaineth, that they ſhould be well ſoked or infuſed in ſoft beaſt ſhearne or thin dung, for three daies togither: or
F at leaſtwiſe in honyed water, a day before they be put into the ground. *Item*, They ought (by his ſaying) to be ſet charily with the ſharpe and pointed end pitched downward, and the edge of the one ſide to turne into the Northeaſt. Alſo that they muſt ſtand three and three togither in a triangle, forſooth, ſo as there be a handbreadth juſt between every one. Moreover, that every tenth day they ought to be watered, untill they bee ſhot up to a good bigneſſe. Now to come unto

Walnuts, they be laid along within the earth, with this regard, that they do lye upon their joints. G
As for Pine-nuts, there would be sixe or seven of their kernels put togither into pots that have holes in them, and so buried in the ground: or els they should bee ordered after the manner of the Bay tree, which commeth of berries bruised, as hath been shewed before.

The Citron tree will grow of seed, and may be set also of sprigs or twigs drawn to the ground from the tree, and so couched. Sorvise trees come of the graines thereof sowed of a quicke-set plant also with the root, or of a slip plucked from it. But as the Citron trees live in hot grounds, so these Sorvises love cold and moist.

As concerning seminaries and nource-gardens, Nature hath shewed us the reason and manner thereof, by certain trees that put forth at the root a thicke spring of young shoots or sions; but lightly the mother that beareth these imps, killeth them when she hath done, with her shade H
and dropping togither. And this is evident to be seene in Lawrels, Pomegranate trees, Planes, Cherrie trees, and Plum trees: for standing as these impes doe, a number of them without all order under their mother stocke, they be over-shadowed and kept down so, that they mislike and never come to proofe. Howbeit some few there bee of this sort, that are not so unkind to their yong breed, as to kill them with the shadow of their boughs; and namely, Elmes and Date trees. This would be observed by the way, that no trees have such young imps springing at their feet, but they only, whose roots for love of the warme sunne and moist rain, spread aloft and lie ebbe within the ground. Moreover, the manner is not to set these young plants presently in the place where they must remaine and continue for altogither, but first they are to be bestowed in a peece of ground where they may take nourishment, to wit, in some nource-garden for the nones, un- I
till they be growne to a good stature; and then they are to be removed a second time unto their due place. And a woonder it is to see, how this transplanting doth mitigate even the savage nature of the wildest trees that are: whether it be that trees as well as men, are desirous of novelties, and love to bee travailing for chaunge; or that as they goe from a place, they leave behind them their malicious qualitie, and beeing used to the hand, become tame and gentle like the wild beasts; especially when such young plants are plucked and taken up with the quicke root. We have learned of Nature also, another kind of planting much like to this: for we see that not only water-shoots springing out of the root, but other sprigs slipped from the stocke, live and doe full well: But in the practise of this feat, they ought to be pulled away with a colts-foot of their owne, so as they take a quicke parcell also of their mothers bodie with them, in manner of K
a fringe or border hanging thereto. After this manner they use to set Pomegranat, Filberd, Hazell, Apple, and Servise trees; Medlars also, Ashes, and Fig trees; but Vines especially: mary a Quince ordered and planted in that sort, will degenerat and grow to a bastard kind. From hence came the invention, to set into the ground young sprigs or twigs, cut off from the tree. This was at first practised with foot-sets for a prick-hedge, namely, by pitching downe into the earth, Elder, Quince-cuttings, and brambles; but afterwards men began to do the like by those trees that are more set by, and nourished for other purposes, as namely Poplars, Alders, and the Willow, which of all others may be pricked into the ground with any end of the cutting or sprig downeward, it makes no matter whether, for the smaller end will take as well as the bigger. Now all the sort of these, are bestowed and ranged in order at the first hand, even as a man would have them, L
and where he list to see them grow, neither need they any remooving or transplantation at all. But before we proceed any further, to other sorts of planting trees, it were good to declare the manner how to order seminaries, seed-plots, or nource-gardens.

For to make a good pepinnier or nource-garden, there would be chosen a principall & speciall peece of ground: for oftentimes it falleth out, yea and meet it is, that the nource which giveth sucke should be more tender over the infant, than the owne naturall mother that bare it. In the first place therfore, let it be a sound and drie ground, howbeit furnished with a good and succulent elementall moisture, and the same broken up and after well digged over & over with mattocke and spade, and brought to temper and order, so as it be nothing coy but readie to receive all manner of plants that shall come, and to entertaine them as welcome guests; and withall, as like M
as may be to that ground unto which they must be remooved at last. But before all things, this would be looked unto, that it be rid cleane of all stones; surely fenced also and paled about, for to keepe out cocks and hens and all pullen: it must not bee full of chinkes and cranies, for feare that the heat of the sunne enter in and burne up the small filaments or strings and beard of the

A new roots: and last of all, these pepins or kernils, ought to stand a foot and a halfe asunder: for in case they meet together and touch one another, besides other faults & inconveniences, they will be subject to wormes: and therefore, I say, there would be some distance betweene, that the ground about them may be often harrowed and raked, to kill the vermine, and the weeds plucked up by the heels that doth breed them. Moreover, it would not be forgotten, to proine these yong plants when they are but new come up: to cut away, I say, the superfluous sprigs underneath, and use them betimes to the hooke. *Cato* giveth counsell to sticke forkes about their beds a mans height, and lay hurdles over them, so as the Sunne may be let in underneath: and those hurdles to cover and thatch over with straw or haulme, for to keep out the cold in winter. Thus are yong plants of Peare trees and Apple tres nourished: thus Pine nut trees, thus Cypresses which likeB wise come up of seed, are cherished.

As for the graines or seeds of the Cypresse tree, they bee exceeding small, and so small indeed, that some of them can scarce bee discerned well by the eie: wherein the admirable worke of Nature would bee considered, to wit, that of so little seeds there should grow so great and mightie trees, considering how far bigger are the cornes of Wheat and Barley (to make no reckoning nor speech of Beanes) in comparison of them. What should wee say to Peare trees and Apple trees? what proportion or likenesse is there betweene them, and the prettie little pepins whereof they take their beginning? Marvell we not, that of so slender and small things at the first, they should grow so hard, as to checke and turne againe the very edge of axe and hatchet? that frames and stockes of presses should bee made thereof, so tough and strong, as will not shrinke C under the heaviest poise and weights that be? that Mast-poles comming thereof should be able to beare saile in wind and weather? and finally, that they should affourd those huge and mightie rams, and such like engines of batterie, sufficient to commaund towers and bastils, yea, and beat downe strong walls of stone before them? Loe, what the force of Nature is! see how powerfull she is in her workes! But it passeth and exceedeth all the rest, that the very gum and liquour distilling out of a tree, should bring forth new plants of the same kind: as we will more at large declare in time and place convenient. To returne then againe to the female Cypresse (for the male as hath been said alreadie, bringeth forth no fruit) after that the little bals or pils (which bee the fruit thereof) be gathered, they are laid in the Sunne to drie, during those months, which we have before shewed: and being thus dried, they will breake and cleave in sunder. Now, when they are D thus opened, they yeeld forth a seed, which Pismires are very greedie of. Where another wonder of Nature offereth it selfe unto us, That so small a creature as it, should eat and consume the seed that giveth life and being to so great and tall trees, as the Cypresse. Well, when the said seed is gotten, and the plot of ground laid even and smooth, with cylinders or rollers, it must be sowne of a good thicknesse in the moneth of Aprill: and fresh mould sifted and strewed over with riddles, an inch thicke and no more: for if this graine be buried over deepe and surcharged, it is not able to breake through against the weight of the earth, but in steed of rising up, the new chit turneth and bendeth backward under the ground. And hereupon it is, that folke forbeare either to goe at all upon it, or else they tread very lightly. Being thus sowed, it must be gently watered for three daies following, after the Sunnes setting, (that the earth may drinke equally in all places) E untill the sprouts appeare above ground. Now, after they have had a yeares growth, they be translated, and replanted againe in rewes: for by that time they are come to a span or nine inches in height: but great care must bee had, that the time bee temperate, that is to say, that the weather be fresh and faire, and without any wind. Certes, a wonderfull thing it is to be spoken, That all the daunger or securitie of this tree, standeth upon the choise of that onely day, wherein it is replanted: for let there fall never so small a raine or deaw, nay, let the wind blow never so little, it is a great hazard that it will die. For ever after it is warished and safe ynough, howbeit, they cannot abide a glut of raine, at any time following. Moreover, as touching Injubes, they are likewise set of their graines, in the moneth of Aprill. But that kind of Peaches or Abricots which bee called Tuberes, love better to bee graffed either upon a skeg or wild Plum-stocke, or Quince, or else F upon the wild Hart-Rhamme, called Calabricum, [or Spina Cervina.] To knit up this discourse, the fruit Sebesten and the Servises may be graffed and planted both upon the same kind of stocke: and looke what will beare the one, is apt to receive the other.

CHAP.

Chap. xi.

The manner of translating and replanting, out of one seminarie or nource-garden unto another. How Elmes are to be planted. Also, as touching trenches.

SOme would have us to remoove plants out of one seminarie into another, before they bee set indeed where they should be for to continue: which mee thinkes is a matter of more toile and curiositie than necessitie, howsoever they make promise, That by such transplanting, the leaves will prove larger and broader.

Now for Elmes, their seed or graine is to be gathered about the *Calends of March, when it beginneth to turne yellow, and before the leaves break forth. After it hath been dried in the shaddow for two daies, it is to bee sowne thicke in a plot of ground well broken up and laid hollow beforehand, and then must there be mould serced over through a fine riddle, to the same thicknesse as we have appointed for the Cypresse. In case no raine doe fall in due time, it ought to be watered by hand. After one yeare, the plants that come hereof, must be taken up out of the trenches and raunges wherein they came up, and translated directly into the Elme plots, where they are to grow; with this care and good regard, that they stand a foot at least everie way distant one from another. As for the male Elmes, unto which Vines are wedded, because they are without seed, it is better they were planted in the Autumne: and for that they want seed, they would bee set of plants. Here with us about Rome side, they use to replant them againe in their grove plots, when they be five yeares old, or, as some would have it, so soone as they bee come to twentie foot in height. The manner whereof is this, in a trench or ditch called *Novenarius, three foot deepe in the ground, and as many broad, or rather more, they are set: which done, for three foot in height every way about the foot of each tree from the ground as it standeth, there must be banks raised of some earth, after the manner of those seats which they call Arulæ in Campanie. As for the spaces between tree and tree, they ought to be set out and disposed according to the nature and situation of the place, and as the ground will give leave. In the champion and plaine countrey, those would bee planted that are of a drier nature, and likewise in a thinner course. As for Ashes and Poplars, because they make hast to spring, leafe, and bud out betimes, it is meet that their plants likewise were set and ranged with the first, that is to say, about the *Ides of Februarie; for they also grow of plants, and may well be replanted.

Now for the order of setting trees either in groves, hortyards, or vineyards, we ought to follow the usuall manner of checquer row, called Quincuntiall, which is not so common, but it is also as necessarie: not onely good to admit all kinds of wind to passe betweene, but also faire and pleasant to the eie, considering, that which way soever a man lookes, there offer to his sight both the allies, and rewes, directly raunged in order.

The Opiets or Wich-hazels are sowne of seed after the same manner as Elmes: in like sort also they to bee remooved and transplanted out of their nource-plots, as if they were wild, drawne from the very forrests.

Moreover, above all things this would be considered, that a tree to be removed, ought to bee translated either into the like ground from whence it came, or else into a better. For we must take heed how we do remove plants out of warme grounds, & where the fruit is earely ripe, into others that be colder or late in ripening. Semblably, out of cold and hard places, they would not bee translated into warme, mellow, and forward. *Item*, If it be possible, let the trenches bee cast and digged so long before, that a good thicke greene sourd be overgrowne against the time that you meane to plant. *Mago* is of opinion, That the said ditches or trenches should stand made a year before at the least, that they might be fully seasoned with the Sunne, and receive all raine, wind, and weather, throughly. But in case it fall out otherwise that the opportunitie therof be overslipt, or our leisure will not serve, he would have fires to be made in the middest of them two moneths before, and in no case any trees to be set but after showers of raine. And if the ground be tough or hard, and standing upon the cley, the ditches ought (according to *Mago*) for to bee three cubites deepe every way: and if they be for to plant Plum-trees, hee would have them bee a handbreadth more or a span in deapth, and digged on every side hollow, and vaulted in manner of a furnace, with a narrower mouth in the top. In a blacke veine of ground, by his direction, it is sufficient that they be two cubites and a handbreadth or span deepe, and made foure square in manner

*i. The first of March.

*Nine foot distant every way from another: for trees were planted ordinarily, with that space betweene: as may appeare in the next chapter.

*i. The 13 day of Februarie.

A ner of a quadrangle. In the meaſure and proportion of theſe ditches, the Greeke writers doe accord in one, ſaying, that they ought not to bee more than two foot and a halfe deepe, nor wider than two foot bare: alſo, that in no place it muſt bee under a foot and a halfe deepe; for that in a moiſt ſoile, we ſhall come ordinarily neare to water about that skantlin, and not before. But *Cato* is of another judgement, If (quoth he) the place be wateriſh, let the trenches be three foot broad in the mouth, but in the bottome not above a foot and a hand-breadth, but ſee they bee foure foot deepe: provided alwaies, that they be* paved beneath with ſtone: and for want thereof, laid with greene willow baſtons, and for default of them, with vine cuttings, or ſuch trouſſe; ſo that they lie halfe a foot thicke. But conſidering the nature of trees whereof we have before written, I thinke it not amiſſe to adde ſomewhat of mine owne, namely, The more ebbe that any roots of
B trees creepe under the ground, the deeper they muſt be ſet into the earth, as for example, the Aſh and the Olive tree: for they and ſuch other like ought to ſtand foure foot deepe. As for all the reſt, it skils not, if they goe no deeper than three foot, for that is thought ſufficient. [Stocke me up this root here (quoth *Papyrius Curſor* a Roman Generall, in a braverie, when he meant to terrifie the Pretor of the Prænestines.) Wherby it is plain, that the more ſecure and ſafe way in his judgement, was rather to cut the ſtocke and maiſter Root indeed, than ſlightly to pare away thoſe bare roots that appeare naked above ground; for that mought be done, and the tree never the worſe for it.] Some there be that would have round pebble ſtones laid in the bottome of ſuch ditches, which might as well containe & keepe water, as let it forth and give iſſue thereto: whereas broad flat ſtones would not ſo doe, but beſides, hinder the root that it ſhould not goe downe
C and take hold of the earth. For to keepe therefore a meane betweene, it were good in mine opinion, to lay gravell under the root.

*It ſeemeth that *Cato* meant of trenches to draine water out of low grounds: and not as *Plinie* miſtaketh.

Moreover, there be diverſe men of this mind, that a tree ſhould not be removed, either under two yeares old, or above three: whereas others make no queſtion to tranſplant them after the firſt yeare, without more adoe. *Cato* alloweth not of tranſlating a tree, unleſſe it bear in thickneſſe more than five fingers. And verily, ſo exactly hath he written hereof, that he would not have forgotten, to marke in the barke of trees the South ſide, before they were taken up, in caſe, hee had thought that it was materiall to the replanting of them, that they ſhould ſtand juſt in the ſame poſition and accuſtomed coaſt of the heaven, as they did before; for feare leaſt that ſide which regarded the North, if now it ſhould bee oppoſed againſt the South, might cleave and rift with
D the heat of the Sunne, not uſed thereto: and contrariwiſe, the parts which looked Southward, might now by the Northerne winds, be clunged and congealed withall. Now, there bee ſome that affect a cleane contrarie courſe, and namely, in the Fig tree and the Vine; exchaunging the one ſide for the other: being fully perſuaded, that by that meanes they will beare leaves thicker, preſerve and defend their fruit better, and in the end ſhed fewer: more particularly, that the Fig-tree thereby will be the *more eaſie to climbe. Moſt men take great heed of this only, that when they prune trees, and cut off the top ends of boughs, the cut may be toward the South; without any regard or conſideration, that in ſo doing they expoſe the boughs to the daunger of cleaving, by reaſon of the hote Southerne wind, which lieth unceſſantly beating upon them. Yet hold I rather with them, that would have braunches cut Southeaſt or Southweſt, namely, toward the points
E where the Sunne is, at the fift and eight houres of the day. Another ſecret there is beſides, wherof they are as ignorant, howbeit, not to bee neglected, namely, to beware that the roots of ſuch trees as are to bee replanted, ſtay not long above ground, and thereby waxe drie: alſo, that trees be not digged up, either ſtanding into the North, or in any quarter betweene that point and the Southeaſt, where the Sunne riſeth in midwinter, in caſe the wind ſit in thoſe corners: or at leaſtwiſe, that the roots be not expoſed bare againſt any of thoſe winds: for ſurely, many a tree dieth hereby, and husbandmen never know the cauſe thereof. *Cato* utterly condemneth all manner of winds whatſoever, yea, and raine too, all the while that trees bee in remooving. Moreover, in this caſe it is ſingular good, that there hang to the roots of theſe trees when they bee tranſlated, as much of the old earth wherin they lived and grew before, as may be, yea, and (if it were poſſible)
F to bring them away with the turfes whole and entire, lapped faſt about the roots. And therefore *Cato* provided well, that ſuch yong plants ſhould be caried in baskets, earth and all together with the roots. Doubtleſſe, not without very great reaſon there is one Author ſaith, That it is ſufficient that the uppermoſt courſe of the old mould which lay at the foot of the tree, ſhould bee put under the root thereof now when it is replanted. Some write, that if the bottome of the hole or

Scanſilem, reading it ὑβάτερον, haply: for ὑβλαστότερον out of *Theophraſtus*, i. more fertile and fruitfull.

grave

grave be paved with stone where Pomgranate trees should stand, the Apples or fruit that they G
beare, well never burst nor cleave upon the trees. Also, that the roots of trees when they are to be set, should be laid bending at one side, and not stand direct and streight. Moreover, that the tree in any case bee set just in the middest of the ditch or hole made for it. It is said moreover, that if a man plant a Fig tree, together with the sea-onion, Scilla (which is a kind of the Bulbi) it will make hast to beare Figs, and those will not be subject to the worme: and yet other fruits will be worm-eaten nevertheless, set them with the said Scilla as well as you can. As for the roots of a tree, who maketh any doubt, that great care should be had in the taking of them up? so as they might seeme rather drawne forth gently, and not plucked up violently. But my purpose is not to dwell in these matters, nor to stand much upon such points, which have a manifest reason, and whereof no man is ignorant or doubtfull; to wit, that the earth is to bee well driven and beaten downe H
close with a rammer, that it may lie fast about the roots, which *Cato* judgeth to bee a principall point for to bee observed in this businesse: who also giveth a rule, that the place where a tree is cut in the bodie, should be plaistered over with dung, covered over also, and fast tied with leaves.

Chap. xii.

Of the spaces and distances that ought to be betweene trees planted: of their shaddowes and droppings: of the place where they should be planted.

IT belongeth to this place properly for to speake of the distances betweene tree and tree, in the setting. Some writers are of opinion, That Pomgranat trees, Myrtle trees, and Lawrels, should I
be planted thicker than ordinarie, howbeit, with this regard, that they be set nine foot asunder one from another. As for Apple trees, they may stand a little more at large, Peare trees somewhat wider than they, Almond trees and Fig trees yet a little more than all the rest. But herein must we be ruled and directed by the boughs spreading more or lesse, by the rowme of the place it selfe, and according to the shaddow that each tree casteth. There is not (I say) any one of these considerations to bee neglected, and the shade especially of all others would bee observed. For such trees as doe braunch round as it were in compasse, although they bee otherwise great, as namely, Apple trees & Pyrries, yet they yeeld no great shaddow: whereas a man shall see Cherrie trees and Lawrels take up an exceeding deale of ground with their shade. Now these shaddowes of trees have their properties by themselves, for that of the Walnut tree is noisome and K
hurtfull even to man, breeding heavinesse in the head: and an ill neighbour it is besides to all plants either under or neare unto it. The Pine tree also with her shaddow nippeth and killeth the young spring of all plants within the reach thereof. Howbeit, both it and also the Walnut tree resist the force of winds notably, and therfore they serve in good steed to protect vineyards, and are projected against the winds to breake their violence. The dropping of the Pine, Oke, and Mast-holme, by reason of the raine water wherewith they are much charged, is very heavie and ponderous, and therefore hurtfull. As for the Cypresse tree, it droppeth little or nothing, by reason that it receiveth so small a deale of raine: & in truth of all others the shade is least, the boughs are knit and trust so round, and run up sharpe pointed in the top. The Fig tree giveth no thicke shaddow, however the boughs spread large ynough; which is the cause, that no man forbiddeth L
the planting of them in Vineyards among Vines. And as for Elmes, their shade is so mild and thin, that it nourisheth whatsoever it overspreadeth under it. Howbeit, *Atticus* is of opinion, That the shaddow of Elmes is one of the thickest and most hurtfull: neither doe I make any doubt thereof, if they be let to spread into great armes and boughs at libertie: marie, if the braunches thereof, or of any tree within-forth be shrigged, I thinke that the shade will doe no harme at all. The Plane tree carieth a heavie head, and therefore casteth a thicke shade, howbeit, pleasant it is, and refresheth those that sit under it: safe resting there is upon the grasse, rather than the bare ground: and there is not a tree againe where grasse groweth thicker and longer, to cover the bankes and seats under it. As for the white Poplar or Aspen tree, it maketh little or no shade at all, the leaves keepe such a wagging and trembling, and never hang still. The shaddow of the Alder M
tree is fat and battle, it feedeth whatsoever is sowne or set under it. The Vine hath shade ynough to serve her owne turne: the leaves are ever stirring, and by their motion and turning often too and fro, there is a good temperature of shade and Sunne by that meanes: they serve also in steed of a couvert in time of raine, and beare off a good shower. Generally, all trees in manner that

have

A have their leaves hanging by a long taile, caſt but a light and ſlender ſhaddow. And in very truth the knowledge hereof would not be contemned, nor ſet in the laſt place of ſuch points as belong to husbandrie, conſidering there is not the ſhaddow of any one tree, but either is a kind nource, or a ſhrewd and curſt ſtepdame, that is to ſay, either profitable or incommodious to all the fruits of the earth. For without all queſtion, the ſhade of Walnut trees, Pine trees, Pitch trees, and Firs, is no better than poiſon to all that is within the compaſſe of it, and kils whatſoever it toucheth. And thus much of Shadowes.

As touching the dropping of trees, a man may conclude in one word all that belongeth thereunto. For looke what trees ſoever be ſo defended and clad with thicke leaved branches, that the raine cannot paſſe readily through them, bee ſure the dropping and diſtillation of ſuch is
B naught and daungerous. And therefore it skilleth very much in this matter and queſtion now in hand, to know the nature of the earth wherein wee meane to plant, how many trees it may well beare and nouriſh. As for hils, they require of themſelves not ſo great diſtance betweene tree and tree, as the plaines beneath: beſides, in ſuch places expoſed to the wind, it is good that they bee planted thicker. Howbeit, Olives require the greateſt ſpace betweene of all others: and therefore *Cato*, following the judgement of all Italie, ordaineth in theſe words, That they ſhould ſtand aſunder five and twentie foot at the leaſt, and thirtie at the moſt: but this rule holdeth not alwaies; for herein guided wee muſt bee by the nature and ſite of places, which varie and differ much. For in Bœtica, which is a part of Spaine, there is not another tree growing, bigger than the Olive: and if we may give credite to authors that have written hereof, there bee in Affricke, by their re-
C port, many of them called Milliariæ, for that every yeare they yeeld a thouſand pound weight of oile, apeece. And therfore *Mago* allowed threeſcore and fifteene foot every way, for diſtance betweene Olive trees, or els five and fortie at leaſt, even in leane and hard grounds, and thoſe that were expoſed to the winds. And in Bœtica verily, the people uſe to reape great plentie of corne among Olive trees.

Now of all other follies this is one, and bewraieth ſhamefull blindneſſe and ignorance, To be driven to make glades betweene trees when they be growne to a good bigneſſe: and namely, either by lopping their boughs too much for to let in light betweene, and ſo by this meanes to haſten their age and decay; or els to draw them by cutting them downe cleane: wherein oftentimes they that did ſet them at firſt, take themſelves in the manner, and blame their owne want of skill.
D Conſidering therefore, that there is no greater ſhame can happen to husbandmen than to repent when a thing is done, and then goe about to undoe it, much better it is of the twain in this caſe, to fault in overwide, than too ſtreight roume.

Chap. xiii.

What trees grow but ſlowly: and which they bee that ſoone come forward: alſo, of the Savine.

E Some trees by nature are ſlacke of growth, and principally thoſe that come of ſeed, and live longeſt. But ſuch as ſoone decay and die, are quicke of growth, as the Fig tree, Pomgranate tree, Plum-tree, Apple-tree, Peare-tree, Myrtle, and Willow: but they make amends for their ſhort life in this, that they goe before others in fruit, and enrich their maiſters quickly, for they begin to beare well at three yeares age, yea, and they make a ſhew thereof in their bloſſome before. Of all theſe the Peare-tree is the ſloweſt. But the Cypirus, as well the true and legitimate as the baſtard (which is a ſhrub called Pſeudo-Cypirus) come faſteſt forward of any other, for they beare at firſt both bloſſome and fruit. This is a generall thing obſerved, That all trees will thrive and proſper better, yea, and grow ſooner to perfection, if the ſhoots and ſuckers that put out at the root, as alſo other water twigs, be rid away, ſo that all the nouriſhment may bee turned to the principall ſtocke onely.

The worke of Nature in ſending out theſe ſprigs, taught us the feat to couch and lay ſets in
F the ground by way of propagation: and even after the ſame manner briers and brambles doe of themſelves put forth a new off-ſpring: for growing as they do, ſmall and ſlender, and withall running up to be very tall, they cannot chuſe but bend and leane to the ground, where they lay their heads againe, and take freſh root of their owne accord without mans hands: & no doubt, overgrow they would and cover the whole face of the earth, were they not repreſſed and withſtood by

by good husbandrie. The consideration whereof maketh mee to enter into this conceit, That men were made by Nature for no other end but to tend and looke unto the earth. See yet what a commodious device wee have learned by so wicked and detestable a thing as this bramble is, namely, to lay slips in the ground, and quick-sets with the root. Of the same nature is the Yvie also, even to grow and get new root as it creepeth and climbeth. And by *Catoes* saying, not onely the Vine, but Fig-trees and Olives also, will grow & encrease of cuttings couched in the ground; likewise Pomgranate trees, all kinds of Apple-trees, Baies, Plum-trees, Myrtles, Filberds, Hazels of Prænestе, yea, and Plane-trees. Now be there two waies to encrease trees by way of propagation or enterring their twigs. The first is, to force a braunch of a tree as it groweth, downe to the ground, and so to couch it within a trench foure foot square every way; and after two years to cut it atwo, where it bent from the tree; and after three yeares end to transplant it. But if a man list to have such plants or young trees to beare longer, the best way were to burie the said braunches at the first within mould, either in paniers or earthen vessels, that when they are once rooted, they might be removed all whole and entire in them, and so replanted. The second, is a more curious and wanton devise than this, namely, to procure roots to grow upon the very tree, by carying & conveighing braunches, either through earthen pots or oisier baskets, full of earth, thrust close unto the said braunches: and by this meanes, the branches feeling comfort of the warme earth enclosing them on every side, are easily intreated to take root, even among Apples & other fruits, in the head of the tree, (for surely by this meanes we desire to have roots to chuse, growing upon the very top.) So audacious are men and of such monstrous spirits, to make one tree grow upon another, far from the ground beneath. Thus in like manner as before, at two yeares end, the said impes or branches that have taken root, be cut off and caried away in the foresaid pots or paniers, thither where they shall grow. As for the Savine, an hearbe or plant it is that will take if it bee in this sort couched in the ground: also, a sprig if it be slipped off clean from the stocke, will come againe and root. Folke say, that if a man take wine lees, or an old bricke out of the wall broken small, and either poure the one, or lay the other about the root, it will prosper and come forward wonderfully. In like manner may Rosemarie be set as the Savine, either by couching it, or slipping off a branch from it; for neither of them both hath any seed. To conclude, the hearbe or shrub Oleander, may be set of an impe, and so grow, or els come of seed.

Chap. xiiii.

Of encreasing trees by seed: the manner of graffing one in another: how the fine devise of inoculation by way of scutcheon and emplaister was devised.

Nature not willing to conceale any thing from man, hath also taught him to engraffe trees with their seed and graine. For oftentimes it happeneth, that birds being hungrie, have greedily gobbled up seed and fruit whole and sound, which after they have moistened in their gorge, and tempered it also with the warmth and naturall heat of their stomacke, they send forth and squirt out againe when they meute, together with their dung, that giveth unto it a vertue of fecunditie, and so lay it upon the soft beds of tree leaves, which many a time the winds catch and drive into some clifts and cranies of the barke: by meanes whereof, wee have seene a Cherie tree upon a Willow, a Plane tree upon a Lawrell, a Lawrell upon a Cherie tree: and at one time Berries and fruits of diverse sorts and sundrie colours hanging at one and the same tree. It is said moreover, that the Chough or Daw hath given occasion hereof, by laying up for store, seeds and other fruits in crevises and holes of trees, which afterwards sprouted and grew. From hence came the manner of inoculation or graffing in the scutcheon, namely, to cut out a parcell of the barke of that tree which is to be graffed, with a sharpe knife made in manner of a shomakers nall-blade; & then to enclose within the said concavitie, the eie or seed taken out of another tree with the said instrument. And in old time verily this was the onely manner of inoculation used in Fig-trees and Apple-trees. *Virgil* teacheth us to open a concavitie in the knot or joint of a bud that driveth out the barke, and within it to enclose the gem or bud taken out of another tree. And thus much for the graffing that Nature hath shewed.

But there is another way of graffing, which casualtie and chaunce hath taught. And to say a truth, this Maister hath shewed well neare more experiments, now daily practised, than Nature her selfe. Now the manner of it came by this occasion: A certain diligent and painefull husband-

man,

A man, minding to mound and empale his cottage round about with a fence of an hedge; to the end that the ſtakes ſhould not rot, laid a ſill under them, of Ivie wood: but ſuch was the vitall force of the ſaid Ivie, that it toke hold faſt of the ſtakes and claſped them hard, inſomuch as by the life thereof, they alſo came to live; and evident it was to the eye, that the log of Ivie underneath, was as good as the earth to give life and nouriſhment unto the ſtakes afore-ſaid.

To come then unto our graffing, which wee learned by this occaſion: firſt, the head or upper part of the ſtocke muſt be ſawed off very even, & then pared ſmooth with a ſharpe garden-hook or cutting-knife: which done, there offereth unto us a two-fold way to performe the reſt of the worke: The firſt is, to ſet the graffe or Sion betweene the barke and the wood: for in old time truly, men were afraid at firſt to cleave the ſtocke; but ſoone after they ventured to bore a hole
B into the very heart of the wood: and then they ſet faſt into the pith juſt in the mids thereof, but one Sion or graffe; for by this kind of graffing, impoſſible it was that the ſaid pith ſhould receive or beare any more. But afterwards they deviſed a finer and more ſubtle invention to graffe, by cleaving the ſtocke gently through the mids; and after this manner they might well ſet into it ſix imps or Sions at once: as being perſuaded, that by ſuch a number they might ſupply the defect of any, if they chaunced to die or miſcarrie any way. Now when the ſaid clift was made, they held it open with a wedge of wood put betweene, untill ſuch time as the impe or graffe beeing thwitted thin and ſharpe beneath, were ſet handſomely cloſe within the rift. In the practiſe of which feat, many points are to be obſerved: firſt and foremoſt, it would be conſidered, what trees will thus ſort togither and be united; namely, what ſtocke will beare this manner of engraffing,
C and of what tree an impe or Sion will agree well to be ſet into it: for be ye ſure of this, all trees are not alike, neither have they all their ſap in one and the ſame part. Vines and Figge trees are drier in the mids of the tree, than in the head; and toward the top they are more apt to take and conceive, and therefore from thence it is good to make choiſe of impes to be graffed. Contrariwiſe, the ſap of Olives is moſt frim about the mids, and from thence they affourd Sions; for the tops are drie. Moreover, ſooneſt of all other doe thoſe trees incorporate one into another, if when the ſtock and graffe have barks both of one nature, if they bloſſome togither at one time, if they bud and put forth their ſpring at the ſame ſeaſon, and laſt of all, if their ſaps doe agree one with another. On the other ſide, long it will be ere they take, when the ſtock is drie and the graffe moiſt; or when the barke of the one is tender, and of the other tough and hard. Over and be-
D ſides, carefull heed muſt be taken in this buſineſſe, That the ſtocke is not cloven in a knot; for the churliſh hardneſſe thereof will not willingly receive and entertaine a gueſt: that choiſe alſo be made of the ſmootheſt and faireſt place in the ſtocke, where the graffe would be ſet: *Item*, That the clift be not above three fingers deepe; that it be ſtreight and direct; and laſtly, that the impe ſtand ſo cloſe barke to barke in the ſocket, that a man may not ſee betweene it and the ſtocke. *Virgil* will in no wiſe have a Sion or graffe to bee taken from about the top of a tree, for ſuch are all naught. But this one thing is generally held for certain, That the good imps to be graffed are thoſe, which bee gathered from thoſe armes of the tree which regard the Sun-riſing in ſummer time: *Item*, That all ſuch graffes come from the boughs that beare well: alſo that they bee new tender ſhoots of the laſt yeare (unleſſe they are to be graffed in the ſtocke of an old tree, for then
E there ſhould be choſen ſuch as are ſtronger:) moreover, this is to be regarded, that they be well budded, yea and knotted too, making ſhew and giving good hope even then, that they would beare fruit the ſame yeere: but in any wiſe the ſame ought to be of two yeares growth at leaſt, and not ſmaller beneath toward the ſtock than a mans middle finger. As for the graffes, the manner is to ſet them in the ſtocke with the leſſer end downward, when our purpoſe is, that the tree ſhould ſpread rather in breadth, than run up in heigth. Above all, it would be looked well unto, that they be neat and bright, ſo as they ſhine againe; that no part of them be ſeene either ſcorched drie with the ſunne, or cicatrized (as it were) and bliſtered. Good hope there is that the graft will take, if the pith or marow of the ſion doe fall jumpe with the joynt, ſo as it joyne cloſe to the wood and inner barke of the mother ſtocke: for this is farre better than to let it meet juſt
F and even with the bark without-forth. Moreover, a carefull eie muſt be had in thwitting & ſharpning the graffe or impe, that the heart or woodie ſubſtance bee not ſtript all naked, or left bare: howbeit gently and with a light hand a man muſt goe over it with a fine and ſharpe inſtrument, in ſuch ſort, as it may goe downe into the clift wedgewiſe, no deeper than three fingers bredth: the which may right eaſily be done, if it be ſhaven and pared preſently after it hath been dipped

in water. Moreover, wee ought be well advised, that wee sharpen not the end of a graffe in the G
wind, and that the barke goe not either from it or the stocke. As for the graffe it selfe, it must be
driven downe into the clitt, close to the shoulder where the owne barke goeth round, and from
whence you began to sharpen it: but take heed in thrusting and forcing thereof, that it stand not
out of joynt, ne yet that the barke thereof turne up in wrinkles: and therefore chosen they would
not be which are over moist, no more (I assure you) than those that be too drie; for as the ex-
cessive humiditie of the one looseneth the rind, so the want of vitall moisture in the other, will
not suffer it to unite and concorporate. Over and besides, in the working of this feat, men observe
a certaine religious reverence, namely, that the sions be set into the stocke when the moone is
croissant, (to wit, before the full) and with both hands forsooth, or els all is marred: and other-
wise in this businesse there is an opinion, that two hands togither are put to smaller streste, and H
have better stay of themselves than one alone; and therefore such a moderation is right neces-
sarie: for the more forcibly the graffes be set into the stocke, & the faster that they are setled, the
longer it will be ere they take to beare; but surer they be, and continue the longer: contrariwise,
if they stand slacke, the tree indeed will the sooner beare, but last the lesse while. Furthermore,
regard would be had in this case, as well that the clift of the stocke gape not too much (as being
over wide for the graffe;) as that it be not too little and over-streight, for feare that either it flurt it
out againe, or claspe it and gird it so hard that it kill it quite. This principally we must take heed
of at the first, that there be no spill or little chip left behind in the mids of the clift, nor any thing
besides the graffe it selfe, to fill up the place. Some there be, that enter the clift first in the stocke,
with a bill, and with an osier twig tye and bind up the very brims or edges thereof: which done, I
they drive the wedges in, to make such an overture as is meet; for by reason of the foresaid
bonds, they need not feare the gaping of it too wide. Some stocks there be which the very same
day that they bee graffed in the nource-garden, are without any harme remooved to the place
where they must grow. If the stocke wherein you graffe be bigge and round, the best way is to set
the sion betweene the barke and the wood thereof, and to devide the one from the other with a
wedge of bone, least in enlarging of the barke it chaunce to breake. In graffing of a Cherie tree
stocke, the over rind or barke would bee taken away before the clift bee made. [Now these trees
alone of all others may be graffed very well presently after mid-winter.] When the said rind is
gone, you shall see therein a certaine downe, which if it chaunce to claspe about the graft, it rot-
teth the same incontinently. But to returne againe to our worke of graffing: After the wedge is K
taken forth whole and sound at the point, (which is a token that no spill remaineth within) you
may bee bold to bind the head of the stocke all about. Yet this would be considered by the way
(which I had like to have forgotten) that the best and handsomest graffing, is as near the ground
as may be, in case the knots will give leave and the stocke beare it: also that the grafts would not
conveniently stand without the stocke above six fingers breadth. Now when all is done and sure
worke made (as hath been said) *Cato* willeth us to take clay, or the sandie grit of chalke, mixed
togither with oxe or cow shearn, to worke & temper all these togither in manner of a tough past
or cataplasme, and then to lay the same within the clift, & round about to daube all. And verily
by this and other such rules which he hath left in writing, it appeareth plainly, that in those daies
the manner was to graffe betweene the barke and the tree, and not otherwise; as also to set the L
sions in the stocke, not above two fingers deepe. As for Apple trees and Pyrries, he prescribeth
that they should be graffed in the Spring; also fiftie daies after the Summer sun-stead, & againe
after vintage: but Olives and Fig trees in the Spring onely, observing the age and disposition of
the Moone, when she is in the wane and thirstie, that is to say, drie: moreover, after noontide,
and when no Southerne wind doth blow. And I cannot chuse but wonder much at the curiosi-
tie and double diligence of *Cato*, who not content to have defended the graft with clay or past
aforesaid, yea and to preserve it with turfe and mosse against the injurie of rain and cold, to have
bound it about also with little knitches of soft osier twigs slived in twaine; but must give charge
besides to cover it with Oxe-tongue (a kind of hearb there is so called) *i.* Bugloss: and yet he
hath not done, but the same must be fast bound with wispes and wreaths of straw and litter aloft. M
Now adaies men make no more adoe, but thinke it sufficient to stop and close up barke and all,
with earth or clay and chaffe tempered togither; thinking it sufficient, if the graft beare out two
fingers breadth above. They that wait upon the Spring season for to graffe, are many times
driven to their shifts for want of time, by reason that all trees make hast then to bud, & do break

out

A out of a ſodain; unleſſe it be the Olive, the oilets or eyes whereof be longeſt while in comming forth, as having leaſt ſap of all other, running under the barke; the which if it were overmuch, would ſtifle and choke the grafts. As for the Pomegranat and Fig tree, howſoever otherwiſe they ſeeme to be drie, yet good it is not to deferre and put off the grafting of them. The Peare-tree may well enough be graffed with the bloſſome on the head, and it makes no matter if a man doe ſtay, and graffe it within the moneth of May. To be ſhort, if a man bee conſtrained to fetch his ſions or imps of Apple trees and ſuch like, farre off, it is thought that they will keepe their ſap beſt, if they be ſtucke or ſet faſt in a Rape root. Alſo if one would preſerve them a certaine time before they ſhould be occupied, it is paſſing good to lay them cloſe between two creſt tiles, well ſtopped on every ſide with earth, and that neare to ſome rivers or fiſh-ponds.

B

Chap. xv. *The manner how to graffe a Vine tree.*

AS for the cuttings or ſets of Vines, they may bee kept well a long time, covered all over with ſtraw or litter in drie ditches; and afterwards they are to be laid within the earth, all hilled or covered, ſave only that their heads be ſeene above ground. *Cato* graffeth a vine ſtocke three manner of waies: Firſt, he willeth that the mother ſtocke ſhould be cut overthwart, and then cloven through the very pith or heart in the mids, wherein hee would have the young imps (thwitted and ſharpned as is beforeſaid) to be ſet and engraffed ſo, as the marow of the one and the other may joyne and meet juſt togither. The ſecond manner is, when two vine ſtocks do reach one to the other, for to cut byas or aſlaunt (after the manner of a Goats foot) two twigs or
C braunches, of either one, with this regard, that theſe cuts be of a contrarie ſide the one unto the other, and withall ſo deep, as that they come unto the pith or heart; then to fit one to the other, joyning pith to pith, and then binding them faſt togither ſo cloſe, that no aire may enter between, untill ſuch time as the one hath adopted the other. The third deviſe is, to bore holes in an old vine, not directly but aſlope, as far as to the pith; and then to put into them young imps two foot long, and to bind them faſt: which done, to make a certaine batter or morter [with clay, beaſt dung, and ſand togither] and therewith to dawbe the place; but with this regard, that the graft ſtand halfe upright or ſomewhat leaning. This manner of grafting hath been checked and corrected of late daies by our countrymen, who leaving the hand-piercer have taken the French vibrequin or breaſt-wimble, which gently and quickly boreth a hole, and hurteth not the wood:
D for all chafing heat cauſed by the ſaid piercer, dulleth the vigor both of ſtocke and impe. Alſo they have deviſed, that the ſaid impe to be engraffed, be gathered from the tree when it beginneth to bud or burgen; & when it is ſet into the ſtocke, that it be left ſtanding out with no more than two eyes or buds out of the grafting place; that it be well bound alſo with the winding rods of an Elme: moreover, that on either ſide of it, the mother-ſtocke be ſlit or cut in two places on both ſides, to the end that from thence rather than otherwiſe, the wateriſh humour may diſtill and drop forth, which of all things hurteth vines moſt. After all this, they would have the ſaid graffe remaine bound, untill ſuch time as it have put foorth ſhoots two foot long; and then the foreſaid bands to be cut in ſunder, that they may burniſh in thickneſſe and at eaſe accordingly. The ſeaſon which they have allowed for to graft vines, is from the Æquinoctiall in Autumne
E unto the time that they begin to bud foorth. Generally all trees that are tame and gentle, may well be graffed into ſtockes and roots of the wild, which by nature are more drie: contrariwiſe, graffe the wild and ſavage kind upon the other, you ſhall have all degenerate, and become wild. Touching other points belonging to the feat of grafting, all dependeth upon the goodneſſe or malignitie of the skie and weather. In ſumme, a drie ſeaſon is good for all trees grafted in this manner: and ſay that the drought were exceſſive, there is a good remedie for it, namely, to take certaine earthen pots of aſhes, and to let water diſtill through them ſoftly, by little and little to the root of the ſtock. As for inoculation, it loveth ſmall dewes otherwhiles, to refreſh both ſtock, ſcutcheon, and oilet.

Chap. xvi.

F *Of Emplaſtration or graffing with the Scutcheon.*

THe manner of graffing by way of emplaſtre or ſcutcheon, may ſeeme alſo to have come from inoculation: and this deviſe agreeth beſt with thoſe trees that have thicke barkes, as namely Fig trees. To goe therefore artificially to worke, the mother ſtocke or tree to bee

graffed, must be well rid and cleansed from the braunches all about the place where you meane G
to practise this feat, because they should not sucke the sap from thence; and chuse the neatest
and trimmest part, which seemeth most fresh and lively: then cut forth a scutcheon of the barke,
[but be carefull that your instrument pierce no farther than the barke, nor enter into the quicke
wood:] which done, take from another tree the like scutcheon of the barke, saving the eye or
bud thereon, and set it in the place of the other; but so equall this must be to the place and so
close joyned and united to it, that a man may see no token at all or apparence in the joynt, of
any wound or skarre made; to the end, that presently they may concorporate, that no humor of
the sap may issue forth, nor so much as any wind get between: and yet to make sure worke, the
better way is to lute it well and close with clay, and then to bind it fast. This devise of grafting thus
with the scutcheon, was but lately found out, by their saying, that favour all new and moderne in- H
ventions: howbeit I find that the auncient Greekes have written thereof; yea and *Cato* also our
owne countryman, who ordained to graffe both Olive and Fig tree in that order: and (as he was
a man very diligent and curious in all things that he tooke in hand) hee hath set downe the just
measure and proportion of the scutcheon: for hee would have the barkes both the one and the
other, to be cut out with a chizell foure fingers long, and three in breadth, and so to close up all
in manner aforesaid, that they might grow together; and then to be dawbed over with that mor-
ter of his making aforesaid: after which manner, Apple trees also may be graffed.

Some there be, who have intermingled and comprehended under this kind of graffing with
the scutcheon, that devise of making in the side a cleft, and namely in vines; for they take forth
a little square peece with the barke, and then set in an impe very hard and close, on that side where I
it is plaine and even, to the very marow or pith. Certes, neare to Tuliæ in the Tyburtines coun-
trey, I have seene a tree graffed all these waies abovesaid, and the same laden with all manner of
fruits; one bough bearing Nuts, another Berries, here hung Grapes, there Figs; in one part you
should see Peares, in another Pomegranats; and to conclude, no kind of Apple or other fruit,
but there it was to be found: mary this tree lived not long. Howbeit, let us use what diligence we
can, yet never shall we be able with all our experiments, to attaine unto the depth of Natures se-
crets. For some trees there be, that come up of themselves, and by no Art and industrie of man
will be made to grow; such also love ordinarily to be in wild forrests and in rough desarts, where
they prosper well: whereas the Plane tree will beare all manner of graffing best of any other;
and next unto it, the wild hard Oke: but both the one and the other corrupt and marre the tast K
of what fruit soever is graffed thereupon. Some trees there be, that refuse not to be engraffed up-
on any stock, and what way soever they be graffed it skills not, as Fig trees and Pomegranat trees.
As for the Vine, it will not beare the scutcheon; neither any tree besides that hath a thin barke,
or which doth pill and rift: no nor such as be dry or have small store of sap within them can away
with inoculation. Howbeit this manner of graffing is most fruitfull of all other; and next to it,
that which is done by way of scutcheon or emplastre: yet trees so graffed, be of all others most
tender and feeble: as also such as rest and stay upon the barke only, are with the least wind that
is, soonest displanted and laid along on the ground. The surest and strongest way therefore is, to
graffe imps upon the head of a stocke, yea and more plentifull by farre than to sow them of seed,
or plant them otherwise. L

Chap. xvii.

An historie, shewing the example and proofe hereof.

IN this discourse and question concerning grafts, I cannot passe over the rare observation of
one example, practised by *Corellius* a knight of Rome borne at Ateste: This gentleman of
Rome, in a ferme that he had within the territorie of Naples, chaunced to graffe a Chestnut
with an impe cut from the same tree: This graft tooke and bare faire Chestnuts and pleasant to
the tast, which of him tooke their name. After the decease of this gentleman, his heire (who had
been sometime his bondslave and by him enfranchised) grafted the foresaid Corellian Chestnut M
tree a second time: and certainly betweene them both was this difference, The former Corel-
lian bare the more plentie, but the nuts of the other twice graffed were the better. As for other
sorts of graffing or planting, mans wit hath devised, by observing that which hath falne out by
chaunce: thus are we taught to set broken boughs into the ground, when wee saw how stakes pit-

ched

A ched into the earth,tooke root.Many trees are planted after that manner,and eſpecially the Fig tree, which will grow any way, ſave onely of a little cutting: but beſt of all, if a man take a good big braunch thereof, ſharpen it at the end in manner of a ſtake, and ſo thruſt it deepe into the ground, leaving a ſmall head above the ground, & the ſame covered over with ſand. The Pomegranat likewiſe and the Myrtles, are ſet of braunches, but the hole firſt ought to bee made eaſie and large with a ſtrong ſtake or crow of yron. In ſumme, all theſe boughs ought to be three foot long, ſmaller in compaſſe than a mans arme, ſharpned at the one end, and with the barke ſaved whole and ſound with great care. As for the Myrtle tree, it will come alſo of a cutting; the Mulberrie will not otherwiſe grow: for to couch and plant them with their braunches, we are forbidden, for feare of the lightnings. And foraſmuch as we are falne into the mention of ſuch cuttings,
B I muſt now ſhew the manner of planting them alſo: above all things therefore regard would be had, that they be taken from ſuch trees as be fruitfull, that they be not crooked, rough, and rugged, nor yet forked; ne yet ſlenderer than ſuch as would fill a mans hand, or ſhorter than a foot in length. *Item*, That the barke be not broken or raſed; that the nether end of the cut be ſet into the ground, and namely, that part alwaies which grew next the root; and laſt of all, that they be banked well with earth about the place where they ſpring and bud forth, untill ſuch time as the plant have gotten ſtrength.

Chap. xviii.

C *The manner of planting, ordering, and dreſſing Olive trees. Alſo which be the convenient times for graffing.*

WHat rules (by the judgement of *Cato*) are to be obſerved in the dreſſing and husbanding of Olives, I thinke it beſt to ſet downe here word for word, as he hath delivered them. Thus he ſaith therfore: The truncheons or ſets of Olive trees which thou meaneſt to lay in trenches, make them three foot long; handle them gently and with great care, that in cutting, ſharpning, or ſquaring them, the barke take no harme nor pill from the wood. As for ſuch as thou doeſt purpoſe to plant in a nource-garden for to remoove againe, ſee they be a foot in length, and in this manner ſet them: Let the place be firſt digged throughly with a ſpade untill it be well wrought, lie light, & brought into temper: when thou putteſt the ſaid truncheon
D into the ground, beare it down with thy foot; if it go not willingly deepe enough by that means, drive it lower with a little beetle or mallet; but take heed withall, that thou rive not the barke in ſo doing. A better way there is, To make a hole firſt with a ſtake or crow before thou ſet it into the ground, and therein maiſt thou put it at eaſe, and ſo will it live alſo and take root the ſooner: when they be three yeeres old, have then a carefull eye to them in any caſe, and marke where and when the barke turneth. If thou plant either in ditches or furrowes, lay three plants togither in the earth, but ſo as their heads may ſtand a good way aſunder above the ground; alſo that there be no more ſeene of them than the breadth of foure fingers; or els (if thou thinke good) ſet the buds or eies only of the Olive. Moreover, when thou art about to take up an Olive plant for to ſet againe, be warie and carefull that thou breake not the root: get as many ſpurs or ſtrings thereof
E [called the beard] as thou canſt, earth and all about them: and when thou haſt ſufficiently covered thoſe roots with mould in the replanting, be ſure thou tread it down cloſe with thy foot, that nothing hurt the ſame.

Now if a man demaund and would gladly know what is the fitteſt time for planting Olives, in one word I will tell him; Let him chuſe a drie ground in ſeed time [*i.* in Autumne,] and a fat or battle ground in the Spring: furthermore, begin to prune thy Olive trees fifteen daies before the Æquinox in the Spring, and from that time forward for the ſpace of fortie daies, thou canſt not doe amiſſe. The manner of pruning or disbraunching them, ſhall be thus, Looke where thou ſeeſt a place fertile, if thou ſpie any drie or withered twigs, or broken boughs that the wind hath met withall, be ſure thou cut them away every one: but if the plot of ground be barraine,
F eare it up better with the plough, take paines (I ſay) to till it well, to breake all clots and make it even; to cleanſe the trees likewiſe of knurs and knots, and to diſcharge them of all ſuperfluous wood: alſo about Autumne bate the earth from about the roots of Olives, and lay them bare, but in ſtead thereof put good mucke thereto. Howbeit if a man do very often labour the ground of an Olive plot, and take a deepe ſtitch, hee ſhall now and then plough up the ſmalleſt roots

thereof, so ebbe they will run within the ground, which is not good for the trees: for in case they G
spread aloft, they will wax the thicker, and so by that means the strength and vertue of the Olive will turne all into the roots.

As touching all the kinds of Olive trees, how may they be; also in what ground they ought to be set, and wherein they will like and live best; likewise, what coast of the heaven they should regard; we have shewed sufficiently in our discourse and treatise of Oile. *Mago* hath given order in his bookes of husbandrie, that in planting them upon high grounds, in drie places, and in a veine of clay, the season should bee betweene Autumne and midwinter: but in case you have a fat, moist, or watersh soile, hee setteth downe a longer time, namely, from harvest to midwinter. But this rule of his you must take to be respective to the climat of Africke only: for in Italy at this day verily, men use to plant most in the Spring: howbeit if a man hath a mind to be doing H
also in Autumne, hee may be bold to begin after the Æquinox; for during the space of fortie
* Vergiliæ. daies togither, even to the setting of the * Brood-hen starre, there are no more but fourteene daies ill for planting. In Barbarie, the people have this practise peculiar to themselves, For to graft in a wild Olive stocke; whereby they continue a certaine perpetuitie: for ever as the boughs that were grafted and (as I may say) adopted first, wax old and grow to decay, a second quickely putteth forth a fresh, taken new from another tree, and in the same old stocke sheweth young and lively; and after it a third successively, and as many as need; so as by this meanes they take order to eternize their Olives: insomuch as one Olive-plot hath been knowne to have prospered in good estate, a world of yeares. This wild Olive aforesaid, may be graffed either with sions set in a clift, or els by way of inoculation with the scutcheon aforesaid. But in planting of Olives, I
this heed must be taken, that they be not set in a hole where an Oke hath been stocked up by the root: for there be certain canker-worms (called Erucæ in Latine, or Raucæ) breeding in the root of an Oke, which eat the same, and no doubt will doe as much by the Olive tree. Moreover, it is found by experience better for Olive trees, that their sets be not interred in the earth, nor yet dried, before they be planted. Also, the same experience hath taught, that for old Olive trees (overgrowne with a kind of mossie skurfe) it is passing good, ech other yeare to scrape and claw them well, betweene the Spring and Æquinox, and the rising of the star Vergiliæ or the Brood-hen: likewise to bestow mosse round about the root: mary every yeare they would bee digged round about the root and laid bare after the sunstead, with a trench made two cubits broad and a foot deepe: as also once in three yeeres, it were not amisse to cherish them with good dung. K
Over and besides, the same *Mago* saith, that Almond trees ought to bee planted betweene the setting of Arcturus and the shortest day of the yeare. As for Peare trees, they are not to be set all at one and the same time, for they blossome not all alike: they that beare either the long or round Peares, have their season from the occultation of the Brood-hen starre, untill midwinter. All other sorts, and principally those that regard either the East or the North, are to be planted in mid-winter, namely, after the retreat of the starre called Sagitta, [*i.* the Shaft.] The Lawrell would bee put into the ground, from the Ægle starre; unto the fall of the Shaft aforesaid: for certeinly the observation of the time, pertinent to planting of trees, agreeth much-what after this manner; and for the most part men doe accord and ordaine, that it should be done in the Spring and Autumne principally. Another season there is about the rising of the Dog-starre, L
which few men take knowledge of, because it is not so generally practised, nor found alike profitable to all countries: howbeit I must not overpasse it in silence, considering that my purpose is not to speake of this or that countries disposition, but to search into the nature of all things. In Cyrenaica therefore (a region in Africke) they use to set trees about the time that the Etesian Northern winds doe blow: in Greece likewise they doe the same; and namely in Laconia they suppose that to be the best time for the Olive tree: and in the Iland Cos, the manner is then to plant vines also. In all other parts of Greece, they make no doubt to inoculate, and to graffe in that season; but in no wise will they plant whole trees then. But herein it skilleth much to consider the nature of each tract and region: for in Ægypt, they set, plant, and replant, every moneth of the yeare: in Æthiopia likewise, and India; and generally in all countries whersoever M
it raineth not in Summer. Setting these respects aside, trees require of necessitie to be planted in Autumne. Like as therefore there bee three seasons of planting trees, so there are as many wherein they bud and put foorth new shoots; to wit, the Spring, the rising of the Dog-starre, and the apparition of Arcturus. And verily this is a thing worthie to be noted, That not onely

A beasts and other living creatures have an appetite to engender, but the earth also, and all the plants thereupon, are much more lustie and hote that way. And therefore to make them to conceive in due season, the time would be well observed, when they bee as it were in love, and desire the act of generation. And not onely in the earth and trees therein planted, is this to bee seene, but in grafts and stockes also particularly by themselves; since that they have a mutuall and respective appetite, one to joine & incorporat with the other. They that make choise of the Spring for this purpose, begin to put them as it were together for to engender, presently after the Æquinoctiall; giving out in these plaine tearmes, that trees then are broodie and readie to put foorth sprouts: which is the reason, that their barkes at such a time will knit and joine together easily. But such as preferre the Autumne before the Spring, fall to this businesse immediately upon the
B rising of the star Arcturus; for then they suppose, that plants will take root forthwith, and by the time that the Spring is come, they will bee better prepared to put forth lustily: considering that their vertue is not streightwaies spent in budding, but rather employed in taking good root. Howbeit, some trees there be that have their set times and seasons of the yeare limitted, whether it be to plant or to graffe: and the same indifferently in all places, as namely, Cherrie-trees and Almond trees about the midwinter. But for the most part, the situation of the place will be able to guide and order all this matter best: for cold and wateriſh grounds ought to be planted in the Spring; but drie and hote, in the Autumne. With our peasants here in Italie, it is ordinarie to devide their times and seasons for planting in this manner following, They set out for the Mulberie all the time from the Ides of Februarie to the spring Æquinox: for the Peare tree they allow the
C Autumne, and so forward untill fifteene daies before the point of midwinter, and no longer: for Summer Apples and Quinces, for Servises likewise and Plums, they assigne the space betweene the Winter tropicke or Sunnestead, and the Ides of Februarie. As for Carobes of Greece, and Peach-trees, they have all the Autumne and the whole yeare before them untill mid-winter approch. All Nut trees, as namely, Walnut trees, Pine trees, Filberds, Hazels, and Chestnut trees, would be planted from betweene the first day of March, and the fifteenth thereof. To conclude, the onely time for Willowes & Broome, is about the Calends or beginning of the same March. But of these two last named, the Broome loveth to be set of nource-plants, comming of seed, in drie and light grounds: but contrariwise, the Willow to be set of twigs in moist places, according as we have before said.
D

Chap. xix.

What trees they be that love to sort and keepe companie together. The skill and feat of baring the roots of trees, and also of hilling or banking them about.

THere is besides a new manner of grafting trees, which I will not overpasse: for my purpose is not willingly to omit ought, that I have found in any booke as touching this argument. And *Columella*, as himselfe affirmeth, was the first deviser thereof, namely, to conjoine trees of diverse natures, and such as otherwise cannot abide societie and fellowship together, as for example, Fig trees and Olive trees. He, I say, would have a Fig tree to bee planted neare unto an O-
E live, and so neare indeed, as that a bough or braunch of the Olive may reach unto the Fig tree at ease, considering that it is very supple and pliable otherwise, and readie to follow and bee led as a man would have it: and yet as obedient as it is, hee would have it ever and anone to be handled and made gentle in the meane time, that by this meanes inured first, it may be bent and bowed to the purpose when the time serves. Which done, after that the Figge tree hath gotten some strength, and is growne to sufficient bignesse for to beare a graffe (which ordinarily is at three yeares end, or at the utmost when it is five yeares old) the head thereof must bee cut or sawed off, and then the braunch or bough of the Olive beforesaid, beeing well cleansed and made neat, and the head-end thereof (as is beforesaid) thwited and scraped sharpe, howbeit, not yet cut from the mother stocke, must bee set fast in the shanke of the Figge tree, where it must bee
F kept well and surely tied with bands, for feare, that thus beeing forced and graffed arch-wise, it start and flurt not out againe, and returne to the owne. Thus beeing of a mixt and meane nature, betweene a braunch or bough growing still unto the tree, and yet laid in the ground to take new root, and an impe or sion graffed, for the space of three yeares it is suffered to feed and grow indifferently betweene two mothers, or rather by the meanes thereof, two mother-

stockes

stockes are growne and united together. But in the fourth yeare it is cut wholly from the owne G
mother, and is become altogether an adopted child to the Fig-tree, wherein it is incorporate. A pretie devise, I assure you, to make a Figge-tree beare Olives, the secret whereof is not knowne to every man: but I my selfe doe conceive and see the reason of it well ynough.

Moreover, the same regard and consideration above rehearsed, as touching the nature of grounds, whether they bee hote, cold, moist, or drie, hath shewed us also the manner of digging furrowes and ditches. For in waterie places it will not bee good to make them either deepe or large: whereas contrariwise, in a hote and drie soile they would be of great capacitie, both to receive and also to hold store of water. And verily, this is a good point of husbandrie for to preserve not onely young plants, but old trees also. For in hote countries, men use in Summer time to raise hillockes and bankes about their roots, and cover them well therewith, for feare least the H
extreame heat of the Sunne should scorch and burne them. But in other parts the manner is to dig away the earth, and to lay the roots bare, and let in the wind to blow upon them. The same men also in winter doe banke the roots about; and thereby preserve them from the frost. Contrariwise, others in the winter open the ground for to admit moisture, to quench their thirst. But in what ground soever it be where such husbandrie is requisite, the way of cleansing tree roots, and ridding the earth from them, is to dig a trench three foot round about. And yet this must not bee done in meddowes, for as much as for the love of the Sunne, and of moisture, the roots of trees run ebbe under the face of the earth. And thus much verily may suffice in generall, for the planting or graffing of all those trees that are to beare fruit.

Chap. xx. I

Of Willow and Oisier plots: of places where reeds and canes are nourished: also, of other trees that be usually cut for poles, props, and stakes.

IT remaineth now to speake of those trees which are planted and nourished for others, and for Vines especially: to which purpose, their wood is usually lopped to serve the turne. Among which, Willowes and Oisiers are the cheefe, and to bee placed in the formost ranke: and ordinarily they love to grow in moist and waterie grounds. Now, for the better ordering of the Oisier, the place would be well digged before, and laid soft two foot and a halfe deep, and then planted with little twigs or cuttings of a foot and a halfe in length, and those prickt in: or else stored with good big sets, which, the fuller and rounder they be in hand, so much better they are for to K
grow, and sooner will they prove to be trees. Betweene the one and the other, there ought to bee a space of sixe foot. When they are come to three yeares growth, the manner is to keepe them downe with cutting, that they stand not above ground more than two foot, to the end that they might spread the better in breadth, & when time serves be lopped and shred more easily, without the helpe of ladder. For the Withie or Oisier is of this nature, that the nearer it groweth to the ground, the better head it beareth. These trees also, as well as others, require (as men say) to have the ground digged and laid light about them every year, in the month of Aprill. And thus much for the planting and ordering of Oisier willowes, which must bee emploied in binding and winding. As for the other Willow, which affourdeth big boughs for poles, perches, and props, those I
may bee set likewise of twigs and cuttings, and trenched in the ground after the same manner. These lightly every fourth yeare will yeeld good poles or staves, and for that purpose would they then be ordinarily cut and lopped. If these trees become old, their boughs by propagation may still maintaine and repleni sh the place, to wit, by couching them within the ground; & after they have lien so one yeare, and taken root, by cutting them cleane from the stocke-father. An oisier plat of one acre stored thus, will yeeld twigs sufficient for windings and bindinds, to serve a vineyard of five and twentie acres.

To the same purpose men are wont to plant the white Poplar or Aspe, in manner following. First, a peece of ground, or a quarter, must be digged and made hollow two foot deepe: and therein ought to be laid cuttings of a foot and a halfe in length, after they have had two daies drying: N
but so, as they stand one from another, a foot and a handbreadth, & be covered over with mould two cubites thicke.

As touching canes and reeds, they love to grow in places more wet and waterish than either the Willowes and Oisiers abovesaid, or the Poplars. Men use to plant their bulbous roots, which

some

A ſome call their oilets or eies, in a trench of a ſpan deapth: and thoſe two ſoot and an halfe aſun-
der. Theſe reeds doe multiplie and encreaſe of themſelves (if a plot be once planted with them)
after the old plants be extirped & deſtroied. And ſurely, this is found now adaies to bee the better
and the more profitable way, even to commit all to Nature, rather than to gueld and weed them
out where they ſeeme to grow over thick, as the practiſe was in old time: for the manner of their
roots is, to creepe one within another, and to be ſo interlaced continually, as if they were twiſted
together. The fit and proper time to plant and ſet theſe canes or reeds is a little before the Ca-
lends of March, to wit, before the oilets or eies aboveſaid begin to ſwell. They grow untill mid-
winter, at which time they waxe hard, which is a ſigne that they have done growing: and this is
the onely ſeaſon alſo for to cut them. Likewiſe, the ground would be digged about them, as of-
B ten as Vines. The order of planting them is two manner of waies, for either the roots bee laid
overthwart or acroſſe, and but ſhallow within the ground (and looke how many eies there bee in
the root, ſo many plants will ſpring above the earth:) or elſe they be pitched downe right, within
a grave or trench of a foot deapth, ſo as there bee two eies or buds under the ground, and the
third above, but cloſe and meet with it: but this caveat is to be given, that the head thereof may
bend forward toward the earth, for feare that it drinke in any deaw, which might ſtand and ſettle
upon it. This alſo is obſerved, that they be cut ever in the wane of the Moone: as alſo, before that
they are emploied about Vineyards for to beare up Vines, they would have a whole yeares dry-
ing, for ſuch are more profitable than the greene.

The beſt ſtaies to beare up Vines, are made of the Cheſtnut tree: for why? the wood is gen-
C tle and tractable; tough withall, and enduring long: beſides, it hath this propertie, that cut it
when you liſt, it will ſpring againe more plentifully than any Willowes. It loveth to grow in a
gentle and ſandie ground, but principally, if the ſame ſtand upon a moiſt gravell or a hote earth
full of little pebbles, and namely, where there is good ſtore of ſuch ſoft ſtones, as will ſoon crum-
ble into grit: neither makes it any matter how much the place be ſhaddowed, nor how cold and
expoſed to the Northerne winds, for ſuch it liketh well ynough, yea, although it bee the ſide or
hanging of an hill, as bleake and cold as may bee. But contrariwiſe, it may not abide the red
French earth, the chalkie or marle ground, nor in one word, any that is battle and fruitfull. Set it
is of a Nut, as we have beforeſaid: but it commeth not up, unleſſe there bee five in a heape piled
together, and thoſe of the faireſt and biggeſt ſort. Moreover, the plot wherein you meane to have
D Cheſtnuts grow, muſt be ouvertly broken up aloft, from betweene November and Februarie: in
which time the Nuts uſe to bee looſe, and to fall of themſelves from the tree, and ſpring under-
neath, finding the ground light and hollow under them. Betwixt each heape ſet in manner afore-
ſaid, there ought to be a foot ſpace every way, and the trench wherein they be ſet, of a ſpan depth.
Out of this plot, as out of a ſeminarie and nource-garden, theſe young plants are to be tranſlated
into another, and then they muſt be ſet two foot aſunder. Howbeit, they ought to bee above two
yeares old firſt, before they be removed and replanted. Moreover, a man may encreaſe Cheſtnut-
trees by propagation: to wit, by couching and trenching the braunches thereof, as they grow to
the mother: and there is not another tree againe that ſooner taketh that way, than it doth; for the
root thereof being laid bare, the whole braunch muſt be enterred along in the trench made for
E the purpoſe, leaving out the end onely above ground. Thus ſhall you have one tree ſpring from
it, and another from the root. Howbeit, planted in this wiſe, it loveth not to be tranſlated; it can-
not lodge elſewhere, but dreadeth and hateth all change of ſoile: and therefore ſuch plots of
ground as doe affourd coppiſes of Cheſtnut-trees, are ſtored with plants comming of marrons
or nut-kernels, rather than quick-ſets or plants ſet with the root. For the ordering and dreſſing of
them, there is no other labour required, than in the others before rehearſed; namely, for the two
firſt yeares enſuing to dig the ground looſe about their roots, and to proine or cut away the ſu-
perfluous twigs: for ever after they will ſhift well ynough, and manure themſelves, by reaſon that
their owne ſhade will kill thoſe ſuperfluous water-ſhoots that ſpring out either from the root or
the ſides of the tree. A coppiſe of theſe trees is cut ordinarily within every ſeventh yeare: and one
F acre of them will yeeld props ynough for to ſerve a vineyard of twentie acres: for beſides that
one pole of them will abide to be cloven and make two props apeece, they will laſt very well un-
till the next fall of the wood or coppis be paſt.

Moreover, the Maſt-tree called Eſculus, is planted and commeth up in like ſort: howbeit, paſ-
ſing untoward and unwilling they are to grow, and therefore they ſtand ten yeares at leaſt before

they

they be cut and lopped. Set Acornes of this tree Esculus whereſoever you pleaſe, they will ſurely take and come up: but the trench muſt be a ſpan deepe, and the Acornes two foot aſunder. And foure times in the yeare are they to be lightly *raked and cleanſed from weeds. A forke or prop made of this wood, laſteth very well and rotteth not: and in very truth, the more that the tree it ſelfe is cut and mangled, the better it ſpringeth and putteth forth new ſhoots. G

*Sarbitis.

Over and beſides theſe trees abovenamed, there bee others that uſe to be cut and lopped for Vine props and ſtaies, to wit, the Aſh, the Bay tree, the Peach, and Hazell tree, yea, and the Apple tree: but theſe are all of them lateward and ſlow of growth: neither will they endure ſo well without rotting, if they ſtand any time in the ground, and much leſſe will they abide any wet. But on the other ſide, the Elder tree of all others is moſt firme for to make poles and ſtakes of. It will grow of ſions and impes even as the Poplar. As for the Cypreſſe tree, we have of it ſpoken ſufficiently alreadie. H

Chap. xxi.

The manner and skill of husbanding and dreſsing Vineyards.

NOw that we have treated ſufficiently of the inſtruments, furniture, and tackling (as it were) belonging to Vineyards, it remaineth to ſpeake of the nature of Vines, and to deliver with eſpeciall regard the manuring and dreſſing them. According therefore as wee may ſee in Vines and ſome other trees, which have within them a ſpungeous matter and light ſubſtance, their twigs and braunches doe containe a kind of marrow or pith encloſed between certain knots or joints wherewith their ſtalkes are devided and parted. As for theſe fiſtulous concavities, they are but ſhort all of them, and toward the top ſhorter and ſhorter, but evermore betweene two knots, they encloſe the joints aforeſaid. Now this marrow, this vegetative and vitall ſubſtance, I ſay, (call it whether you will) runneth forward ſtill on end all the length of the hollow kex or pipe ſo long as it findeth no reſiſtance by the way: but meeting once with a joint or hard knot which maketh head upon it, not ſuffering the ſame to paſſe forward, it being driven backe, returneth downeward: howbeit, in that reverberation, breaketh out under thoſe knots, and putteth foorth certaine wings or pinnions like arme pits, whereas the buds or leaves doe come; but alwaies in alternative courſe, one of this ſide, and another of that; after the manner of reeds, canes, and fennell-geant, as hath been ſhewed before: in ſuch wiſe, that if one wing riſe forth at the bottome of the lower knot on the right hand, another ſpringeth for it on the left hand in that next above it; and thus they keepe order the whole length of the braunch. Theſe ſprouts when they are come once to ſome bigneſſe, and do braunch there, bee called of the Latines by a prettie name, Gemmæ, as it were precious ſtones: but ſo long, as they are no other than buds ſprouting foorth under the concavitie or pit-hole of the foreſaid joints, they tearme them Oculos, [*i.* Oilets or Eies:] marie in the very top they be named by them Germina [*i.* Sprigs or Burgeons.] After this order are engendred the maine braunches, the ſmaller *ſprigs yearely cut away, the grapes, leaves, and yong tendrils of Vines. But hereat I wonder moſt, that the burgeons comming forth on the right ſide, be alwaies more tough and firme than thoſe of the left. To come now unto the planting of theſe Vines: The ſhoots or branches muſt bee cut juſt in the middeſt betweene the foreſaid knots or joints, ſo as the marrow in no wiſe run out. And if you would plant fig-ſets or ſions, they ought verily to be a ſpan long, and then to be prickt into the ground, (but firſt there ſhould bee a hole made with a little ſtake) with the greater end that grew next to the bodie of the tree downeward; provided alwaies, that two oilets or buds ſtand above ground. Now theſe oilets are properly (in twigs or ſets of trees) thoſe buds called, where the new Spring firſt ſhooteth forth. And hereupon it is, that theſe ſions or cuttings being ſet in nource-gardens, beare the ſame yeare that very fruit which they would have borne upon the tree, if they had not been cut off: and namely, if they be ſet in the right ſeaſon whiles they be plumpe and full: for having conceived on the tree, they doe conſummate the ſad conception ſo begun, and are delivered thereof elſewhere. And looke what Fig-ſets be in this manner planted, may be eaſily and without daunger remooved and tranſlated the third yeare after. For certes, as this tree of all others ſoone ageth and endureth not long: ſo in recompence of ſhort life, this one gift it hath of Nature, That it commeth forward apace, quickly groweth to the full bigneſſe, and beareth fruit. I K L M

*Nepotes.

As for the Vine, there is not a tree that is planted more ſundrie waies, nor affourdeth greater

ſtore

A ſtore of ſions or ſets than it. For firſt and formoſt, nothing thereof is planted, but that which is unprofitable, hurtfull, ſuperfluous, and of neceſſitie to be pruned and cut away. But in the pruning, this rule muſt be obſerved, that thoſe braunches bee cut off which were portoirs and bare grapes the yeare before. The manner in old time was to plant or ſet a ſion, headed (as it were) and taking hold on both ſides of the old wood and hard ſtocke: whereupon, becauſe it was faſhioned like a little mallet or hammer head, it was and is at this day called in Latine Malleolus. But afterwards they began to ſlip off a twig with a heele onely of the old wood (as they uſe to do in a Fig-tree:) and there is not a better way to make a Vine ſurely to take and live than this. A third ſort there is beſides of ſions or ſets which are more readily gotten, without any ſuch heele of the hard wood, and therefore they be wreathed and twined when they are ſet into the ground: whereupon
B they be called in Latine Sagittæ [i. Shafts:] for the ſame ſions only cut off and not wreathed, are named Trigemmes, as a man would ſay, twigs with three buds or ſpurts. And therefore of one and the ſame Vine braunch, a man may in this ſort make many kinds of ſions or ſets. Howbeit, this is to be noted, that if you ſet any young ſprigs that never bare fruit but leaſe only, the Vines comming thereof will be ever barren: and therefore none ought to bee planted but ſuch as are fruitfull. A Vine-ſet or cutting, that hath joints ſtanding thin, but here and there, is thought to be fruitleſſe: but contrariwiſe, if it be ſet thicke with buds, by all likelyhood it will beare plentifully. Some are of opinion, that no ſions ſhould be put into the ground, but thoſe that have floured alreadie. Alſo, That to ſet ſuch cuttings as be called Shafts, which have no part of the old wood, is not ſo profitable; for that in remooving they are in danger to breake whereas they were wrythen.
C Now, when you have gotten ſuch ſets as bee meet for planting; let them be a foot long at the leaſt, and carie five or ſixe knots, and at this length they cannot poſſibly have fewer than three buds. Moreover, the beſt way is preſently to ſet them the very ſame day that they bee gathered. But in caſe a man be driven to keepe them long before they bee put into the ground, great heed would be taken, according to the rule beforeſaid, That they be not laid above ground; that they drie not in the Sunne; that they take no wind; nor looſe their freſh vigor by cold. And if it chance that they lie out any while in the drie aire, they would be laid to ſoake in water many daies together, untill they be refreſhed and looke greene againe, before they be ſet into the earth. The plot or quarter within the nource-garden or vineyard, ought to bee well expoſed to the Sunne, of a good largeneſſe, and ſufficiently moulded: alſo, it muſt be well digged for three foot broad with
D a grubbing double toothed forke: then muſt you goe deeper and caſt up the earth with a broad ſpade or ſhovell, after that the ſame hath been broken up with a mattocke or yron toole, carying foure foot in the head, ſo as the ditch may goe two foot directly deepe into the ground. Which done, the ditch is to be cleanſed, and the mould to be ſpread abroad, and not left lying raw in that manner, but to take a kind concoction in the weather. And herein muſt the labourer proceed and be ruled by meaſure, and trie his worke thereby: for if the earth be not well delved, it will be ſoone found out by the uneven balkes or beds. There would be a juſt meaſure taken alſo of the allies that lie betweene the beds. All things being thus prepared, let us come now to the planting of the ſets aforeſaid, which would be couched either in trenches made of purpoſe, or in long furrowes; and then the fineſt and moſt delicate mould that can be found, is to be caſt aloft. But all
E this prevaileth not in a leane and hungrie ground, unleſſe fatter earth bee laid as a pallet underneath. Moreover, this is to be looked unto, that two ſets at the leaſt be moulded and laid within the earth together in one range: alſo they muſt be ſo couched, that they leane with their heads cloſe upon the earth next about them: yea, and with one and the ſame ſtake the ſaid earth ought to be driven cloſe and faſt about them. Over and beſides, throughout the whole plot or quarter of this nource-garden, regard is to be had, that between every two ſets there be a foot & an halfe one way, to wit, in breadth; and halfe a foot another way, to wit, forward in length. Theſe plants being thus ordered, after they have growne to twelve months, they ſhould bee then diſcharged of all their burgeons, even to the nethermoſt knot, unleſſe haply it be ſpared and let alone: for
F ſome there be that cut it alſo. After theſe, commeth forth the matter of the oilets, and ſhew themſelves; and therewith at the third twelvemonth end the quick-ſet root and all is removed to another place in the vineyard.

Beſides all this, there is another pretie and wanton deviſe, more curious ywis than needfull, to plant Vines, and namely, after this manner. Take foure braunches of foure Vines growing together, and bearing ſundrie kinds of grapes; bind them well and ſtrongly together in that part

where

where they are most ranke and best nourished: being thus bound fast together, let them passe G
along either through the concavitie of an Oxe shanke and maribone, or else an earthen pipe or tunnell made for the nonce. Thus couch them in the ground, and cover them with earth, so as two joints or buds be seene without. By this meanes they enjoy the benefit of moisture, and take root together: and although they be cut from their owne stocke, yet they put out leaves & branches. After this, the pipe or bone aforesaid is broken, that the root may have libertie both to spread and also to gather more strength. And will you see the experience of a pretie secret? you shall have this one plant thus united of foure, to beare diverse and sundrie grapes, according to the bodies or stockes from whence they came. Yet is there one fine cast more to plant a Vine, found out but of late, and this is the manner thereof: Take a Vine-set or cutting, slit it along through the middest, and scrape out the marrow or pith very cleane; then set them together H
againe wood to wood, as they were before, and bind them fast: but take heed in any case that the buds or oilets without-forth be not hurt, nor rased at all. This done, put the same cutting into the ground, enterre it I say well within earth & dung tempered together. When it begins to spread young braunches, cut them off; and oftentimes remember to dig about it, & lay the earth light: and certes, *Columella* holdeth it for certain, and assureth us upon his word, That the grapes comming of such a Vine will have no stones or kernils at all within them. A strange thing and passing wonderfull, that the very set it selfe should live; and that which more is, grow and beare, notwithstanding the pith or marrow is taken quite away.

Furthermore, since we are entred thus farre into this discourse and argument, I cannot passe by, but I must needs speake of such twigs and braunches of trees as will knit and grow together I
even to a tree. For, certaine it is, that if you take five or sixe of the smallest sprigs of Boxe, bind them together, and so pricke them into the ground, they will proove and grow to one entire tree. Howbeit, in old time men observed, that these twigs should be broken off from a Box tree, which never had been cut or disbranched, for otherwise it was thought verily they would never live: but afterwards this was checked by experience, and the contrarie knowne. Thus much as touching the order of Vine-plants, and their nource-garden for store.

It remaineth now to speake of the manner of Vineyards and Vines themselves. Where in the first place, there offer unto us five sorts thereof. For some traine and run along upon the ground spreading every way with their braunches: others grow upright and beare up themselves without any staies. Some rest upon props, without any traile or frame at all: others be borne up with K
forkes and one single raile lying over in a long raunge: and last of all, there bee Vines that run upon trailes and frames laid over crosse-wise with foure courses of railes, in manner of a crosse dormant. The same manner of husbandrie that serveth those Vines which beare upon props without any other frame at all, will agree well ynough to that which standeth of it selfe without any staies. For surely it groweth so, for default onely and want of perches and props. As for the Vine that is led upon a single raunge as it were in one direct line, which they call Canterius, it is thought better than the other, for plentie of liquor: for besides that it shaddoweth not it selfe, it hath the furtherance & help of the Sun-shine continually to ripen the grapes: it hath the benefite also of the wind blowing through it, by which meanes the dew will not long stand upon it. Moreover, it lieth more handsome to the hand for the leaves to bee plucked away, and for the L
clods to be broken under it: & in one word, is readiest for all kind of good husbandrie to be done about it. But above all other commodities it hath this, that it is not long in the flower, but bloumeth most kindly. As for the frame aforesaid that is raunged in one line a length, it is made of perches or poles, reeds and canes, cords and ropes, or else lines of haire, as in Spaine and about Brindis. The other kind of frame with railes and spars overthwart, beareth a Vine more free for plentie of wine than the rest, and called this is *Compluviata vitis*, because it resembleth the hollow course of gutter tiles, that in houses receive all raine water and cast it off. For as the crosse dormant in building shutteth off the raine by foure gutters, even so is this Vine led and caried foure waies, upon as may trailes. Of this Vine and the manner of planting it, we will only speake, for that the same ordering will serve well ynough in every kind besides: marie there be farre more M
waies to plant this than the rest, but these three especially. The first and the surest is, to set the Vine in a plot well and throughly delved: the next to it, is in the furrow: the last of all, in a trench or ditch. As for digging a plot and planting therein, ynough hath been written alreadie.

CHAP.

A

Chap. xxii.

Of furrowes and trenches wherein vines are planted: alſo of pruning Vines.

It ſufficeth that the furrow or trench wherein a vine is to be planted, be a ſpade or ſhovels bit breadth: but ditches would be three foot long every way. Be it furrow, trench, or ditch, wherin a vine is to be replanted, it ought to bee three foot deepe; and therefore no plant thereof ſhould be remooved ſo little, but that it might over and beſides ſtand above ground, and ſhew two buds at the leaſt in ſight. Needfull it is moreover, that the earth be well looſened and made more tender and gentle, by ſmall furrows raunged and trenched in the bottome of the ditch; yea
B and to be tempered ſufficiently with dung. Now if the vineyard lie pendant upon the hanging of the hill, it requireth deeper ditches, and thoſe raiſed up well with earth and bedded, from the brims and edges on the lower ground. As for ſuch which ſhall bee made longer, and able to receive two vine-plants growing contrarie one to the other, they ſhall bee called in Latine, Alvei. Above all, the root of the vine ought to ſtand juſt in the mids of the hole or ditch; but the head and wood thereof which reſteth upon the ſound and firme ground, as neare as poſſible is, muſt beare directly into the point of the Æquinoctiall Sun-riſing: and withall, the firſt props that it leaneth upon, would be of Reeds and Canes.

As touching the bounding and limitation of a vineyard, the * principall way which runneth ſtraight Eaſt and Weſt, ought to carie eighteene foot in breadth, to the end that two carts may
C paſſe eaſily one by another, when they meet; the other croſſe allies, dividing every acre juſt in the mids, muſt be ten foot broad: but if the plot or modell of the vineyard will beare it, theſe * allies alſo which lie North and South, would be as large full as the aforeſaid principall high way. Moreover, this would bee alwaies conſidered, That vines be planted by the fives; that is to ſay, that at every fifth perch or pole that ſhoreth them up, there be a path dividing every raunge and courſe, and one bed or quarter from another. If the ground bee ſtiffe and hard, it muſt of neceſſitie be twice digged over, and therein quick-ſets onely that have taken root, muſt be replanted: marie in caſe it be a looſe mould, light, and gentle, you may ſet very cuttings and ſions from the ſtocke, either in furrow or in trench, chuſe you whether. But ſay it be a high ground and upon the hill, better it is to caſt it into furrowes overthwart, than to dig it; that by this means the pearches or
D props may keepe up the ground better, which by occaſion of raine water would ſettle downeward. When the weather is diſpoſed to raine, or the ground by nature drie, it is good planting vine-ſets or ſions at the fall of the leafe, unleſſe the conſtitution of the tract and qualitie of a countrey require the contrarie: for a drie and hot ſoile would be planted in Autumne or the fall of the leafe, whereas a moiſt and cold coaſt may tarrie, even untill the end of Spring. Let the ſoile be drie and hard, bootleſſe it will be to plant, yea though it were a very quicke-ſet, root and all. Neither will it doe well to venter the ſetting of imps cut from the tree, in a drie place, unleſſe it be immediatly upon a good ground ſhowre: but in low grounds, where a man may have water at will, there is no daunger at all to ſet vine braunches, even with leaves on the head; for they will take well enough at any time before the midſommer ſunſtead, as we may ſee by experience
E in Spaine. When you will plant a vine, chuſe a faire day; and if poſſibly you can, let it be when there is no wind ſtirring abroad; for ſuch a calme ſeaſon is beſt: and yet many are of opinion, that Southern winds be good, and they wiſh for them; which is cleane contrarie unto *Cato* his mind, who expreſſely excepteth and rejecteth them. If the ground be of a middle temperature, there ought to bee a ſpace of five foot diſtance betweene every vine: and in caſe it be a rich and fertile ſoile, there would be foure foot at leaſt from one to another; but in a leane hungrie peece of light ground, there ſhould be eight foot at the moſt: for whereas the Vmbrians and Marſians leave twentie foot void betweene every raunge of vines, they do it for to plough and ſow in the place, and therein they have quarters, beds, and ridges, called Porculeta. If the place where you plant a vineyard be ſubject to thicke and darke miſts, or to a rainie diſpoſition of the wea-
F ther, vines ought to be ſet the thinner: but in a drie quarter, it is meet they ſhould bee planted thicke. Moreover, the wit and induſtrie of man hath found out meanes to ſave charges, and in ſetting a nource-garden with vine-ſions to goe a nearer way, with ſmall expence and no loſſe of ground: for in replanting a vineyard with quicke-ſets upon a levell plot, onely digged and laid even, they have with one and the ſame labour (as it were by the way) repleniſhed the ground be-

* *Decumanæ* Lines.

* *Cardines.*

tweene every such rooted plants, with vine-cuttings for store, so as the quicksets may grow in his owne place awpointed, and the sion or cutting (which another day is to be transplanted) in the mean time take root between every course and raunge of the said vine quick-sets, before they be readie to take up much ground. Thus within the compasse of one acre, by just proportion a man may have about sixteene thousand quicke-sets. This is the difference onely, that such beare not fruit so soone by two yeare: so much later are they that be set of sions, than those that were transplanted and remaine still on foot. When a quick-set of a vine is planted in a vineyard, and hath growne one yeare, it is usually cut downe close to the earth, so as but one eye or button be left above ground, and one shore or stake must be stickt close to it for to rest upon, and dung laid well about the root. In like manner ought it to be cut the second yeare. By this meanes it gathereth strength inwardly, and maintaineth the same in such wise, as it may be sufficient another day, to beare and sustaine the burden both of braunch and bunch, when it shall be charged with them: for otherwise, if it be let alone and suffered to make hast for to beare, it would proove to be slender, vinewed, leane, and poore: for surely this is the nature of a vine, That shee groweth most willingly: in such sort, that unlesse she be kept under, chastised, and bridled in this manner, (her inordinate appetite is such) she will run her selfe out of heart, and go all to braunch and leafe.

As touching props and shores to support vines, the best (as wee have said) are those of the Oke or Olive tree; for default whereof, ye may take good stakes and forkes of Iuniper, Cypresse, Laburnium, and the Elder. As for those perches that be of other kinds, they ought to be cut and renewed every yeare. Howbeit, to lay over a frame for vines to runne upon; the best poles are of Reeds and Canes, for they will continue good five yeares, being bound many of them togither. When the shorter braunches of a vine are twisted one within another in manner of cording or ropes, and strengthned with the wood of vine-cuttings among, thereof arch-worke is made, which in Latine they call Funeta. Now by the time that a vine hath growne three yeares in the vineyard, it putteth forth apace strong braunches, which in time may make vines themselves; these mount quickly up to the frame: and then, some good husbands there be, who put out their eyes, that is to say, with a cutting-hooke (turning the edge upward) fetch off the eies budding out beneath: thus by pruning, although they seeme to doe hurt and wrong unto them, yet they draw them to shoot out the longer by the meanes: for in good faith, the more profitable way it is, thus to use and acquaint it with bearing braunches lustily; and far better and easier is it besides to cut away these young imps as the vine lieth fast joyned to the frame, untill such time as a man thinke it be strong enough of the wood. Others there are, who in no case would have a vine touched or medled withall, the next yeare after that it is remooved into the vineyard; nor yet to feele the edge of the cutting-hooke, untill it have five years over the head; mary then they agree it should be pruned & guelded of all the wood it hath, save only three burgeons. You shall have some againe that will indeed cut them the very next yeare after they be replanted, but so as they may win every yeare three or foure joynts; and when they be foure yeares old, and not before, they give them libertie to climbe upon the frame. But this (I assure you) is the next way to make the vine fructifie slowly and late: besides, it causeth it to seeme scortched and full of knots, yea and to grow like a dwarfe or wreckling. The best simply, is to suffer the stocke or mother to be strong first, and afterwards let the braunches and young imps hardly, bee as forward and audacious as they will. Neither is it safe trusting that vine which is full of cicatrises or skarres (a thing that proceedeth of great errour and an unskilfull hand;) for surely all such braunches grow of hurts or wounds, and spring not one jot from the mother-stocke indeed: for all the while that she gathereth strength, her whole vertue remaineth within her; but when she is suffered to grow and fructifie, shee goeth throughly to worke, and emploieth her forces full and whole to bring forth that, which yeerely she conceived: for Nature produceth nothing by halfes nor by peece-meale, but is delivered of all at once. Well then, after that a vine is once full grown and strong enough, let it presently run upon pearches, or bee led in a traile upon a frame; but in case it be yet with the weakest, let it be cut againe, and take up her lodging hardly beneath under the very frame: for in this point the question is not, what Age, but what Strength it hath? for that is it which must rule all. And verily great folly and rashnesse it were, to put a vine to it, and let her have the will to grow ranke, before she be as big full as a mans thumbe. The next yeare after that it is gotten to the frame, there would be saved and let to grow one or two braunches, according to the strength and abilitie of the mother: and let the same the yeare following also be preserved,

nourished,

A nouriſhed, and permitted to grow on end, unleſſe her feeblenes be againſt it: But when the third yeare is come, and not afore, be bold to give her the head with two braunches more; and never let her goe but with foure at the moſt. In one word, hold a vine downe as much as you can, never cocker and cheriſh her, but rather repreſſe her fruitfulneſſe; for of this nature is the vine, Rather than her life, ſhee would be alwaies bearing; neither taketh ſhee ſuch pleaſure to live long, as to beare much: and therefore the more you take away of her ranke and ſuperfluous wood, the better will ſhe employ her radicall ſap and moiſture to fructifie and yeeld good ſtore of grapes: yet by her good will ſhe would be ever putting forth braunches for new plants, rather than buſie in bearing fruit; for well woteth ſhe, that fruit will fall and is but tranſitorie. Thus to her owne undoing and overthrow, while ſhee thinketh to ſpread and gaine more ground, ſhee ſpends her
B ſtrength, her ſelfe and all. Howbeit in this caſe, the nature of the ſoile will guide a man and adviſe him well: In a leane and hungrie ground, although the vine be ſtrong enough, you ought to keepe it downe with cutting, that it may make abode under the head of the traile and frame above; and howſoever ſhe may have ſome hope that her young braunches ſhall get up to the top (as being at the verie point to mount above it, and ſo neare as that they reach thereunto) yet let her ſtay there and proceed no farther: ſuffer her not (I ſay) to lay her head thereupon and couch upon the traile, nor wantonly to ſpread and run on at her eaſe. In this manner (I ſay) hold her head in with the bridle, that ſhe may in the end chuſe rather to grow big in bodie and ſtrong withall, than to ſhoot forth braunches about her every way farre and neare. The ſame braunch now that is kept ſhort of the frame, ought to have two or three buds to burgen at, and to bring
C forth more wood in time: and then let it be drawne and trained cloſe unto the traile and tied faſt thereto, that it may ſeeme to beare upon it and be ſupported thereby, and not to hang looſely thereupon. Being thus bound to the frame, it muſt likewiſe be tied anon, three buds or joynts off: for by this means alſo the wood is reclaimed and repreſſed from running out in length beyond all meaſure, and the burgeons in the way between will come thicker & ſhoot up on heigth, to furniſh the husbandman with ſtore of new ſets and ſions for the next yeare. The very top end in no wiſe muſt be tied. Certes this propertie and qualitie hath the vine, That what part ſoever of it is dejected and driven downward, or els bound and tied faſt, the ſame ordinarily beareth fruit, and principally in that very place where it is bowed and bent in manner of an arch. As for the other parts which be backeward and nearer to the old maine ſtocke, they ſend out ſtore of new
D braunches indeed, full of wood, but otherwiſe fruitleſſe that yeare; by reaſon (I ſuppoſe verily) of the ſpirit or vegetative life, and that marow or pith whereof wee ſpake before, which findeth many ſtops and lets in the way. Howbeit theſe new ſhoots thus putting forth, will yeeld fruit the next yeare. Thus there offer unto us two kinds of vine braunches: for that which ſpringeth out of the hard and old wood, and promiſeth for that yeare following nothing but ſprigs and twigs onely, is called Pampinarium: whereas that which commeth more forward beyond the cut or cicatrice, and beareth ſhew of grapes, is named Fructuarium. As for another, ſpringing from a yeare-old braunch, it is left alwaies for a breeder and kept ſhort under the frame; as alſo that which they tearme Cuſtos, [i. the Keeper, or Watch:] A young braunch this is, and no longer than it may well carie three buds; which the next yeare is like to beare wood and repaire all, in
E caſe the old vine ſtocke ſhould miſcarrie and ſpend it ſelfe by carying too great a burden. Alſo another burgen there is cloſe unto him, bearing out like a knob, of the bigneſſe of a wert, (called he is Furunculus) who muſt ſerve the turne and make ſupply, if peradventure the foreſaid Watch or Keeper faile.

Moreover, a vine if it bee ſuffered to beare before the ſeventh yeare after it was firſt ſet of a cutting or ſion, decaieth ſenſibly and ſoone dieth: neither is it thought good to let the old wood run on ſtill in length upon the frame, as farre as to the fourth forke that underproppeth it, (ſuch old crooked braunches ſome call Dracones, others Iuniculos) to make thereof huge and great trailes of vines tearmed Maſculeta. But worſt of all it is, to ſeeme for to propagate or draw in a long traile within the ground vines in a vineyard, when they be growne hard with age. When
F the vine is five yeares old, a man may boldly wind and twine the very braunches, ſo as out of everie one there be a twig let to grow at libertie: thus he may proceed forward to the next, cutting away the wood as hee goeth that bare before. The ſurer way evermore is ſuppoſed to leave the Watch or Keeper behind; mary hee muſt be next unto the vine maine bodie, and neareſt the root, and no longer than is before ſet downe. Now in caſe the braunches proove over ranke,

they must be writhed and twisted in manner aforesaid, so as the vine stock may put forth no more than foure boughs at the most, or twaine if so be it rest but upon one chanter or raunge of perches. If you would order a vine so as it may stand alone without any props, at the beginning it would desire and have some supporter or other (it makes no matter what) to rest upon, untill it have learned to stand of it selfe, & rise upright: afterwards, it is to be used in manner of all other vines, when this training is past. This regard would be had in pruning and cutting the twiggs of these vines called Pollices, That a man well guide and ballance his hand, and goe even withall in every part indifferently, for feare least one side be charged with fruit or braunch more than the other: where by the way, he must also remember to keepe downe the head, and not suffer it in any wise to runne up in height: for if this kind of vine be above three foot high, it will hang the head downward. As for others, they may wel grow to five foot and upward, so that they passe not in any case the full height of a man. To come now unto the other vines that creepe along and spread over the ground; they be environed all the way as they run, with pretie short hollow cages as it were, to rest and repose their braunches in. They have need moreover of certaine trenches or ditches round about to run in, to the end that as the said braunches wander too and fro, they should not encounter one another & strive togither. And verily in most parts of the world, they use to gather their vintage of vines thus growing low by the ground: as we may see the maner is in Affricke, Ægypt, Syria, throughout all Asia, and in many places of Europe. For the good usage and dressing of these vines, a speciall care would be had to keepe them downe close to the earth; and to fortifie the root, so long and in the same manner, as hath been shewed before in those, that are shored or beare upon frames; with this charge and regard besides, to leave alwaies the short twigs only called Pollices, with three buds apeece, in case the ground be fruitfull; or * five, if it be light and leane. And in one word, better it is without all question, that they be left many, than long. As for those points which wee have delivered heretofore, as touching the nature of the soile, they will be more effectually seene to proove either the goodnesse or the contrarie, in the grapes of this vine, by how much nearer they lie to the ground, than others. Wherein, consideration is to be had of the sundrie sorts of vines, namely, that they be severed apart; and nothing is better, than to sort every one with the tract or region that agreeth best with it, and therein to plant them accordingly: for these mixtures of divers kinds are never good, but alwaies discordant: naught in old wines that come to our table, much worse then you may bee sure, in those that be new and not yet tunned up. But if a man will intermingle plants of sundrie vines togither, yet in any case those would be joyned togither (and none else) which ripen their fruit at one and the same time.

*Quinis, rather Binis, i. twaine.

For frames and trailes wherein vines are to run, the better and more battle that the ground of the vineyard is, the plainer & evener that it lyeth, the higher they would be from the ground; likewise if the place be subject to dewes, fogs, and mists, and nothing exposed to the winds: contrariwise, if the ground be leane and drie, hote, and open to the winds, they must be the lower and nearer to the earth. As concerning the rafters, that lie over and reach from prop to prop, they ought to be tied and fastened thereto with as streight and sure a knot as is possible; whereas the vine would be bound unto them, but slacke. Of the sundrie sorts of vines, as also which were to be planted in this or that soile, and what coasts and climats each one of them loveth, we have shewed sufficiently in the particular treatise of their nature, and of the wines that come of them.

Touching all other points of husbandrie that remaine behind, much doubt and divers questions are made: for many there be that feare not all Summer long to bee digging in the vineyard about vine roots, after every little raine. Others againe forbid to meddle & be lustie therin, in the budding time: for it cannot be avoided, but that the young oilets will either be smitten off cleane, or else galled and bruised one time or other, with their gate that go in and out between: which is the cause, that they would have all kind of cattell to bee kept out that they come not neare, and especially such as beare wooll on their backs; for sheepe of all others sooneſt rub off the buds as they passe by, with their shag-coats. Moreover, they are of opinion, that all manner of raking and hartowing, is an enemie to vines when they be in their flowre, and putting foorth young grapes: and sufficient it is (say they) if a vineyard be delved thrice in one yeere; to wit, first from the Spring Æquinox, to the apparition of the Brood-hen starre; secondly, at the rising of the great Dog-starre; and thirdly, when the grape beginneth to change colour and turn blacke. Others set out these times after this manner: If the vineyard be old, they would have it once dig-

ged

A ged betweene vintage and mid-winter; howſoever ſome be of this mind, That it ſufficeth them to bare the roots onely of the vines and lay dung thereto. The ſecond delving they would have to be from the Ides of Aprill, and ſix daies before the Ides of May, that is, before they begin to conceive and bud: and thirdly, before they fall to bloſſome; alſo when they have done flouring; and alſo at the time when the grapes alter their hew. But the more skilfull and expert husbands affirme conſtantly, That if the ground be overmuch laboured, and digged too often, the grapes will be ſo tender skinned, that they will burſt againe. Moreover, theſe rules following are to bee obſerved, That when any vines do require ſuch delving and digging, the labourers ought to go to worke betimes before the heat of the day: marie if the vineyard ſtand upon a myrie clay, it is not good then either to eare or dig it, but rather to wait for the hot ſeaſon; for the duſt that ri-
B ſeth by digging, is very good (by their ſaying) both to preſerve the vine and grapes from the partching ſunne, and alſo to defend them againſt the dropping miſts.

As for disburgening of vines and cleanſing them of their ſuperfluous leaves, all men accord, that it ſhould be done once in the Spring, to wit, after the Ides of May, for the ſpace of eleven daies following; and in any hand before they begin to put forth flower. And how much thereof muſt be thus diſſoiled for the firſt time? even all that is under the traile or frame, and no more. As for the ſecond, men be not all of one mind; Some would have the leaves to be disbraunched when the vine hath done flowring: others expect, untill the grapes begin to be ripe. But as touching theſe points, the rules that *Cato* giveth, will reſolve us: for wee are now alſo to ſhew the manner of cutting and pruning vines. Many men begin this worke immediatly after vintage,
C when the weather is warme and temperate: but in deed (by courſe of Nature) this ſhould never be done before the riſing of the Ægle ſtarre (as we will more at large declare in the next booke; where we are to treat of the riſing and fall of the fixed ſtars and of their influences;) or rather in truth, when the Weſterne wind Favonius beginneth to blow, foraſmuch as there might be daunger in going over ſoone to worke, conſidering that haſt commonly maketh waſt. For this is certaine, that if there come an after-winter, and chaunce to bite the vines newly medicined (as it were) or rather ſore with this pruning, if it happen (I ſay) that when every man makes reckoning that winter is gone, it come upon them againe and whiske with his taile, their buds pinched with cold will looſe their vigor, their wounds will cleave and make rifts, in ſuch ſort, that when the humiditie is diſtilled and dropped forth, the oilets will be nipt and burnt away with the bitter-
D neſſe of the unſeaſonable weather: for who knoweth not, that in froſt it is tickliſh medling with vines, and that they be in daunger ſoone to breake and knap aſunder? To ſay therefore a truth, by order of Nature there would not be ſuch haſt made. But here is the matter, they that have a large domaine and much lands to looke unto, they that muſt go through a great deale of worke, cannot will nor chuſe but begin betimes, and make this computation and reckoning aforeſaid. And in one word, the ſooner that vines be pruned (if the time will ſerve commodiouſly) the more they run into wood and leaves; and contrariwiſe, the later you go to worke, the more plentie of grapes they will yeeld: and therfore it is meet and expedient to prune vines that bee poore and feeble, very timely; but ſuch as bee ſtrong and hardie, laſt of all.

As for the maner and faſhion of the cut, it ought alwaies to be aſlaunt, like a goats foot, that
E no drops of raine may ſettle and reſt thereupon, but that every ſhowre may ſoon ſhoot off: alſo that it turne downward to the ground, that it be even and ſmooth made with a keen and ſharpe edged bill or cutting hooke. Furthermore, this heed would be taken, that the cut be juſt between two buds, for feare of wounding any of the oylets neere unto that part which is cut off: and commonly this is ſuppoſed to be black and duskiſh, and ſo long as it is ſo ſeene, it ought to be cut and cut againe, untill you come to that which is ſound and cleere indeed: for never ſhall yee have out of a faulty and corrupt wood, any thing come forth that will be worth ought. If the vine be ſo poore and leane that it affordeth no branches meet and ſufficient to beare, cut it down to the very ground, for beſt it is then to fetch new from the root, and to ſee whether they will be more lviely. Over and beſide in disburgening and defoiling a vine, you muſt beware how
F you pluck off thoſe burgeons that are like to beare the grape, or to go with it; for that were the next way to ſupplant (as it were) the grapes, yea and kill the vine, unleſſe it were a new and young plant. Will you then know which are unprofitable and may be ſpared? even all thoſe are deemed ſuperfluous, which come not directly from the knot or neere the oilet, but grow out of the ſide: and no marvaile, ſince that the very branches of grapes which hang in this maner out of

the hard wood, are so stiffe and tough also that unneth a man may plucke them off with his fingers, but had need of a knife or hooke to cut them away. G

As for the pitching of props into the ground, some are of opinion, that the best way is to set them between two vines: and in deed that were the easier way to come about the vines, for to lay their roots bare when time serveth. Also, better is it farre so to doe, in a vineyard where the vines run upon one single traile, in case the said traile be strong enough, and the vineyard not subject to the daunger of winds: but where a vine runneth foure waies, it must be relieved with prop and staies as neare as may be, to support the burden; yet so, as they bee no hinderance when as men should come about the foot to lay the root bare: and therefore they would be a cubit off, and no more. Moreover, this is a generall rule, that a vine be cleansed about the root beneath, before that it be pruned above. H

Cato treating generally of all matters concerning vines, writeth thus by way of rule and precept: Let your vine (quoth he) be as high as possibly you can: fasten it to the frame decently, but take heed you bind it not too hard. Dresse and order it after this maner: After you have cut away the tips and tops thereof, dig round about the rootes, and begin then to eare up and plow the vineyard: draw furrows and ridges too and fro throughout. Whiles vines be yong and tender, couch their branches within the ground for propagation, with all speed: as for old vines, gueld them as little as you can, & keep them with a good head; rather if need require, lay them along on the ground, and two yeeres after cut them hard to the root. If it be a young vine, attend untill it be of strength sufficient; then will it be time and not afore to cut and prune it. If haply the vineyard be bare and naked of vines, and that they grow but thin here and there, make furrowes I and trenches between, and therein plant new quicksets: but rid the weeds well from about those trenches, for overshadowing them: be ever also digging and delving. Then, if it be an old vineyard, sow drage and pulse for provender: if it be a leane and light ground, sow nothing that beareth graine or corne. Be sure that ye lay about the heads of the said quicksets, dung, chaffe, refuse of grapes pressed, & such like mullocke. When the vine beginneth to put out leaves & looke green, fall to disburgeoning. So long as the vines be young and tender, tie them surely in many places, for feare lest the wood or stalke therof doe breake asunder. But when a vine hath gotten head to perch aloft upon a single traile, gently bind the tender burgeons & branches thereof, extend and stretch them out, & lay them streight. Now when they stand once upright & are able to beare themselves, marke when the grapes begin to change colour, bind them well & sure below. K

As for graffing of vines, there are two seasons of the year meet therfore: the one in the spring, the other when the vine doth flower; and this is held for the best. If you purpose to translate an old stocke of a vine into another place, and there to replant it, cut off the first thicke arme only; leaving behind two buds and no more. In taking of it up, bee carefull that you doe it with such dexteritie, as that you rase not nor wound the root. This done, looke how it grew before, so set it now, either in trench or furrow: couch it well and close, and cover it throughly with good mould. After the same manner as is beforesaid, under-set and prop it up, bind it, turne and wind it; but above all, be every while digging about it. As touching the drage called Ocynium, which *Cato* willeth to be sowed in a vineyard, it is a kind of forage or provender for horses, which the Latins in old time named Pabulum: it commeth up very speedily and groweth fast, and besides can well L away with shadowie places.

Chap. xxiii.

Of trees raunged in rewes, for to support Vines.

IT remaineth now in this discourse and treatise of Vines, to write of the manner of trees planted of purpose for to serue their turne. And here I cannot chuse but call to minde, first, how this point of husbandry hath been judged naught, and altogether condemned by the two *Sarsennæ*, both father and sonne; but contrariwise held for good, and highly commended by *Scrofa*: whereas, all three were reputed the most ancient writers, and skilfullest in this kind, next M to *Cato*. And yet *Scrofa*, as great a patron as he is thereof, alloweth not this devise in any climate els, but only in Italy. Howbeit, gone this hath for currant many yeeres past, and time out of mind, That the best and most dainty wines came of those grapes only which grew upon such Hautins or trees beforesaid. Yea, and it was thought generally that the higher a vine climbed upon

A on theſe trees, the better grapes it bare, and yeelded more commendable wine: and againe, the lower that thoſe trees were, the greater plentie followed both of the one and the other. By which a man may ſee how materiall it is to raiſe Vines on high, and have grapes growing in the top of trees. In which regard, choiſe alſo is to bee made of trees for this purpoſe. And here firſt and formoſt is preſented unto us the Elme: and yet I muſt except that kind of it which is called Atinia, by reaſon that it is overmuch charged with boughes and leaves, and therewith too full of ſhade. Next unto it may bee raunged the blacke Poplar, even for the ſame cauſe, becauſe it is not leaved nor branched ſo thicke. Many men there be that refuſe not the Aſh, the Fig tree, yea and the Olive, ſo that it ſtand not over thicke with boughs, and make too much ſhade. As touching the ſetting, planting, and ordering of theſe trees in generall, wee have ſufficiently and to the full treated
B heretofore. But now for this ſpeciall and peculiar uſe that they be put unto, this would be conſidered, That Vines which are to be wedded to theſe trees, muſt in no wiſe feele the edge of the cutting hooke, before they bee three yeares old full. After which time, this regard ought to bee had, that every ſecond branch or arme thereof is to be ſpared: and likewiſe each other yeare and no oftener they are in this wiſe to bee pruned: and by that they are ſix yeares old, it is good time to joine them in mariage unto their husbands aforeſaid.

In Piemont, Lumbardie, and thoſe parts of Italie beyond the river Po, they uſe for this purpoſe to plant their grounds with theſe trees over and beſides thoſe beforenamed, to wit, the Cornell, the Opiet or Wich-hazell, the Teil or Linden, the wild Aſh Ornus, the Carpin Carme or Horn-beame, and the Oke. About Venice and all that tract, the Willowes ſerve the turne & none
C elſe, by reaſon that the whole ſoyle ſtandeth ſo much upon water.

As touching the Elme, named in the firſt place, it muſt be kept plaine and bare, and the great water-boughs underneath ſhred untill you come to the middeſt of the tree, or thereabout: and then the reſt ought to bee arraunged and digeſted into good order, whereupon the Vine may climbe as it were upon ſtaires or ladder rounds: and lightly none of theſe trees upward be above twentie foot high. Now in caſe it be a high ground upon an hill, and drie, they are permitted to braunch and ſhut out their armes, within eight foot of the ground. But in plaines and low moiſt grounds, they begin not to forke before they beare twelve foot. Howbeit, let the place be what it will, the flat of the tree from whence the boughs begin to devide, ought to regard the South ſun. And the ſaid branches immediatly from their project muſt riſe ſomewhat upright in manner of
D fingers, ſtanding forth from the palm of ones hand: among which, the ſmall ſprigs muſt eftſoons be barbed (as it were) and ſhaven cleane off, for feare they doe not overſhade the Vine branches.

As touching the ſpace or diſtance betweene one tree and another, the ordinarie proportion is, that afront and behind, in caſe the ground bee erable, it beare fortie foot: but a flanke, or on the ſide, twentie. Marie, if it be not well tilled and husbanded, ſo much will ſerve every way, to wit, twentie foot and no more. Commonly every one of theſe trees maintaineth tenne Vines at the foot thereof: and a bad husband he is who hath fewer reared about it than three. But by the way, it is no good husbandrie to ſuffer a tree thus to bee coupled (as it were) in marriage to ſo many Vines, before that it bee of ſufficient ſtrength to entertaine them: for there is nothing ſo hurtfull, by reaſon that the Vines will choke and kill them; ſo quicke they bee of their growth, and ſo
E readie to overcharge them.

As for planting of Vine-ſets to the root of trees, needfull it is to make therefore a ditch three foot deep: and they ought to be diſtant one from the other a full foot, and ſo much likewiſe from the tree. This done, there is no queſtion there of the ſmall twigs or ſhoots what to do with them? neither is there any charge or expence required for digging and delving: for this is the manner of it, and this peculiar gift have theſe tree-rowes, That in the ſame ground where they grow, the ſowing of corne is nothing hurtfull, nay, it is profitable and good for the Vines. Moreover, this commoditie and eaſement commeth of their height, that they bee able to ſave themſelves: neither is there any ſuch need, as in other Vineyards, to be at the coaſt of walls, of mounds, pales, or hedges, ne yet of deepe ditches or other fences, to keepe off the violence or injuries of beaſts. Of
F all other toiles before rehearſed, there is no more required but to looke unto onely the getting of quick-ſets, or couching ſions: all the matter I ſay lieth herein, and there is no more to do.

But of couching ſions and that kind of propagation, there bee two deviſes. Firſt within paniers or baskets upon the boughs of the tree, and that is the beſt way, becauſe it is ſafeſt from the daunger of cattell. The ſecond is, to bend the Vine, or a branch thereof, cloſe to the foot of her

owne

owne tree, or else about the next unto it: if it stand single and have no Vine joined unto it. As much of this branch or Vine thus couched as is above the ground, must be kept with scraping; that is to say, the buds ought ever and anone to be knapt off, that it spring not forth. Within the earth there should bee no fewer than foure joints or budding knots buried and enterred for to take root; in the head without, two onely are left for to grow. [Where, note by the way, that the Vine which groweth to the foot of a tree, must be trenched in a ditch foure foot long in all, three in breadth, two and an halfe in deapth.] Now, when the sion thus couched, hath lien one yeare, the order is to cut it toward the stock to the very pith or marrow, that so by little and little it may be inured to fortifie it selfe upon the owne roots, and not to hang and cling alwaies to the mother: as for the other end or head thereof, it would bee cut off also so neare the ground, as that there be but two onely buds left. By the third yeare it must bee quite cut in two, (where before it was but guelded to the pith) and that which remaineth of it, laid deeper into the ground, for feare it should sprout foorth and beare leaves toward that side where it was cut in twaine. This done, no sooner is Vintage past, but this new quicke-set, root and all, must bee taken up and replanted.

Of late daies devised was the manner of couching or planting by a trees side a Vine Dragon (for so we use to call the old braunch of a Vine past all service, which hath done bearing many a yeare, and is now growne to be hard.) And verily, they use to make choise of the biggest they can find, which when they have cut from the stocke, they scrape and pill the barke three foure parts in length, so farre forth as it is to lie within the ground [whereupon they name it in Latine Rasilis:] when it is thus couched low within a furrow, the rest that is above the earth they reare up against the tree. And it is thought, that there is not so good nor so readie a mean to make a Vine grow and beare than this. If it fall out so, that either the Vine be small and weake, or the ground it selfe but leane and hungrie, it is an usuall and ordinarie practise to cut and prune it as near the ground as possibly may bee, untill such time as it bee well strengthened in the root: as also, great regard is had, that it bee not planted when the deaw standeth upon it, ne yet when the wind sits full in the North. The old Vine stocke it selfe ought to look into the Northeast, provided alwaies that the young braunches turne Southward. Moreover, new and tender Vines would not be proined and cut in hast: but better it is to expect and tarie untill such time as they be strong ynough and able to beare the cutting bill: meane while, to gather the young braunches together round in manner of an houpe or circle. [Where note by the way, That Vines which are erected upon trees, for the most part beare later by one yeare than those in Vineyards that bee perched or run on frames.] Some would not have them to be cut at all, before they have raught up to the top of the tree. At the first time when you come with the pruning hooke, the head must be cut off at six foot from the ground, leaving underneath one little top twig, which must bee forced to beare by bending it downeward in the head: and in the same, when it is thus pruned, there must bee left behind three buds and no more. The braunches which burgen out from thence, ought the next yeare to bee brought up to the lowest armes of the tree, and there seated: and so from yeare to yeare, let them climbe up higher to the upper boughs, leaving alwaies upon every loft or scaffold as it were where they rested, one braunch of the old hard wood, and another young imp or twig, for to grow up and climbe as high as it will. Furthermore, as often as a Vine is pruined afterwards, those braunches or boughes thereof in any wise must be cut away which were bearers the yeare before: and in stead of them, the new after they be first cleansed from all the hairie & curled tendrils on every side shred off. The ordinarie manner of pruning and dressing of vines here about Rome, is to let the tender braunches and sprigs enterlace the boughes, insomuch, as the whole tree is overspread and clad therewith, like as the very same tendrils be also covered all over with grapes. But the French fashion is to draw them in a traile along from bough to bough: whereas in Lumbardie and along the causey Æmylia [from Plaisance to Rimino] they use to traine them upon forkes and poles: for albeit the Atinian Elmes bee planted round about, yet the vine commeth not neare their greene boughs. Some there be, who for want of skill and good knowledge about vines, hang them by a strong bond under the boughs: but this is to wrong, yea to stifle and strangle them outright: whereas indeed a vine, as it ought to be kept downe with oisier twigs, so it must not be tied over streight. For which cause, even they also who otherwise have store and plentie ynough even to spare, of Willowes and Oisiers, yet chuse rather to bind vines with some more soft and gentle matter, to wit, with a certaine hearbe, which the Sicilians in their

language

A language call Ampelodeſmos, [*i.* Vine-bind.] But throughout all Greece they tie their Vines with Ruſhes, Cyperus, or Gladon, Reeke, and ſea-graſſe. Over and beſides, the manner is otherwhiles to untie the Vine, and for certaine daies together to give it libertie for to wander looſely; and to ſpread it ſelfe out of order, yea, and to lie at eaſe along the ground, which all the yeare beſides it only beheld from on high: in which repoſe it ſeemeth to take no ſmall contentment and refreſhing; for like as draught horſes, when they be out of their geeres, and hackneis unſaddled, like as Oxen when they have drawne in the yoke, yea, and greyhounds after they have runne in chaſe, love to tumble themſelves and wallow upon the earth; even ſo the Vine alſo, having been long tied up and reſtrained, liketh well now to ſtretch out her lims and loines, and ſuch eaſement and relaxation doth her much good. Nay, the tree it ſelfe findeth ſome comfort and joy thereby,
B in being diſcharged of that burden which it carried continually as it were upon the ſhoulders, and ſeemeth now to take breath and heart againe. And certes, go through the whole courſe and worke of Nature, there is nothing, but by imitation of day and night, deſireth to have ſome alternative eaſe and play-daies betweene. And it is by experience found very hurtfull, and therfore not allowed of, to prune and cut Vines preſently upon the Vintage or Grape-gathering, whiles they be ſtill wearie and over-travelled with bearing their fruit ſo lately: ne yet to bind them (thus pruned) in the ſame place againe, where they were tied the yeare before: for ſurely Vines do feele the very prints and markes which the bonds made, and no doubt are vexed and put to pain therwith, and the worſe for them.

The manner of the Gaules in Lumbardie, in training of Vines from tree to tree, is to take two
C boughs or braunches of both ſides, and draw them over, in caſe the ſtocke Vines that bear them bee fortie foot aſunder: but foure, if they are but twentie foot diſtant. And theſe meet one with another in the ſpace betweene, and are interlaced, twiſted, and tied together: but where they are ſomewhat weake and feeble, they bee ſtrengthened with Oiſier twigs or ſuch like rods here and there by the way, untill they beare out ſtiffe: and looke where they bee ſo ſhort that they will not reach out, they are with an hooke ſtretched and brought to the next tree that ſtandeth without a Vine coupled thereto.

A vine braunch drawne thus along in a traile, they were woont to cut when it had growne two yeares. For in ſuch vine-ſtockes as by reaſon of age bee charged with wood, it is the better way to
D give time and leaſure for to grow and fortifie the ſaid braunch that is to paſſe from tree to tree, ſo as the thickneſſe thereof will give leave: yea, and otherwiſe it is good for the old maine bough to feed ſtill and thrive in pulpe and carnoſitie, if wee purpoſe that it ſhould remaine and carie a length with it.

Yet is there one manner beſides of planting & maintaining Vines, of a mean or middle nature betweene couching or enterring a braunch (by way of propagation,) and drawing them thus in a traile from one to another: namely, to ſupplant, that is, lay along upon the ground the whole ſtocke or maine bodie of a Vine; which done, to cleave it with wedges, and ſo to couch in many furrowes or raies, as many parcels thereof, comming all together from one. Now in caſe ech one of theſe braunches or armes proceeding from one bodie, bee of it ſelfe ſmall, weake, and tender,
E they muſt bee ſtrengthened with long rods like ſtaves bound unto them round about; neither ought the ſmall ſprigs and twigs that ſpring out of the ſide, be cut away.

The husbandmen of Novaria reſt not contented with a number of theſe trailed braunches, nor with ſtore of boughs and trees to ſuſtaine and beare them, unleſſe they be ſhored & ſupported alſo with poſts and overthwart railes, about which the young tendrils may creepe and wind. No marvell therefore if their wines bee after a ſort rough, hard, and unpleaſant: for beſides the badneſſe of their ſoile, the manner of their husbandrie is ſo crooked and untoward.

Our husbandmen moreover here about us (neare unto the citie of Rome) commit the like fault, and find the ſame defect thereupon, in the Varracine Vines, that bee pruned but once in two yeares: a peece of husbandrie by them practiſed, not for any good that it dooth unto the Vine, but becauſe the wine thereof is ſo cheape, that oftener pruning would not quit coſt; nei-
F ther doth the revenue anſwere the labour and the charges.

In the territorie of Carſeoli (a champion and plaine countrey about Rome) the peaſants take a better order, and hold a middle and temperate courſe. For their manner is to proine and cut away from the Vine thoſe parts onely that are faultie and rotten, when they begin once to be drie and to wither, leaving all the reſt for to beare grapes: and thus diſcharging it of the ſuperfluous

burden

burden that it caried, they hold opinion, that it is not good to wound it in many places: for by this meanes (say they) it will be nourished and come on very well. But by their leave, unlesse the ground be passing rich and fat, Vines thus overcharged with wood, will for want of pruning degenerate into the bastard wild wines called Labruscæ. G

But to returne againe unto our plots planted with Trees and Vines coupled together: such grounds when they be ploughed, require a good deepe stitch, although the corne therin sowne need it not. Also it is not the manner to disburgen or deffoile altogether such trees, and thereby a great deale of toile and labour is saved: but when the Vines are a pruning, they would bee disbraunched at once with them, where the boughes grow thickest; and to make a glade onely through, the superfluous branches would bee cut away, which otherwise might consume the nutriment of the grape. As for the cuts and wounds remaining after such pruning and disbraunching, we have alreadie forbidden, that they should stand either against the North or the South. And I thinke moreover it were very well, that they did not regard the West where the Sun serteth: for such wounds will smart and be long sore, yea, and hardly heale againe, if either extreame cold pinch, or excessive heat parch them. H

Furthermore, a Vine hath not the same libertie in a Vineyard that it hath upon a tree: for better meanes there are, and easier it is to hide the said wounds from the weather flanked as they be within those close sides; than to wryth and wrest them to a mans mind too and fro. In lopping and shredding of trees, when the cut standeth open, there would be no hollow places made like cups, for feare that water should stand therein. Last of all, if a Vine bee to climbe trees that are of any great height, there would bee staies and appuies set to it, whereupon it may take hold, and so by little and little arise and mount up aloft. I

Chap. xxiiii.

The manner of keeping and preserving grapes. Also the maladies whereto trees be subject.

IT is holden for a rule, That the best Vine-plants which run upon a frame of railes, ought to be pruned in mid-March about the feast of *Minerva*, called Quinquatrus: and if a man would preserve and keepe their grapes, it would bee done in the wane of the Moone. Also, that such Vines as be cut in the change of the Moone will not be subject to the injurie and hurt of any noisome vermine. Although in some other respect, men are of opinion, that they should bee cut in the night, at the full of the Moone, when the signe is in Leo, Scorpio, Sagittarius, and Taurus: and generally it is thought good to set them when the Moon is at the full, or at leastwise when she is croisant. Moreover, this is to be noted, that in Italie there need not above ten men for to looke unto a Vineyard of a hundred acres. K

And now that I have discoursed at large as touching the manner of planting, graffing, and dressing of trees, I purpose not here to treat againe of Date-trees and Tretrifolie, whereof I have alreadie sufficiently written in the Treatise of straunge and forraine trees: but for as much as my meaning is to omit nothing, I will proceed forward to decipher those matters which concern principally the nature of trees, and namely, their maladies and imperfections; whereto they also as well as beasts and other living creatures, be subject. And to say a truth, what creature is there under heaven freed therefrom? And yet some say, that wild and savage trees are in no such daunger: onely the haile may hurt them in their budding and blouming time. True it is moreover, that scorched they may be otherwhiles with heat, and bitten with cold blacke winds, comming late and out of season: for cold weather surely in due time is kindly and good for them, as hath been said before. But let me not forget my selfe. See wee not many times the cold frost to kill the very Vines? Yes verily; but this is long of the soile and nothing else: for never happeneth this accident but in a cold ground. So as this conclusion holdeth still, That in Winter time wee alwaies find frost and cold weather to doe much good: but wee never allow of a cold and wealie ground. Moreover, it is never seene, that the weakest and smallest trees are endaungered by frost, but they are the greatest and tallest that feele the smart. And therefore no marvell if in such, the tops being nipped therewith, seeme first to fade and wither; by reason that the native and radicall moisture being bitten and dulled before, was never able to reach up thither. L M

Now, concerning the diseases that haunt trees: some there bee that are common unto all,

others

A others againe,that extend peculiarly to ſome certaine kind or other. As for the former ſort,generall it is,that no trees are exempt from the worme, the blaſting,and the joint-ach. Hereof it commeth,that we ſee them more feeble and weake in one part or member than in another; as if they did participate the maladies and miſeries of mankind,ſo common are the names of diſeaſes unto them both.For certes,we uſe to ſay indifferently,That trees are headleſſe,when they be lopt and topt,as well as men who are beheaded: wee tearme their eies to bee enflamed,ſendged,and bloud-ſhotten, when their buds be blaſted:& many other infirmities, according to the like proportion.And thereupon it is,that we ſay they be hungerſtarved and pined: and contrariwiſe,that they be full of crudites and raw undigeſted humors; namely,when moiſture aboundeth in them. Yea,and ſome of them are ſaid to be groſſe and overfat,to wit,all ſuch as bear roſin; when by the
B meanes of too much greaſe(as it were) they begin to putrifie and turne into Torch-wood: yea, and it falleth out,that they die withall,in caſe the ſaid greaſe take once to the roots; even as living creatures being overgrowne with fat. Moreover, yee ſhall ſee a kind of peſtilence light amongſt one peculiar kind of trees: like as it fareth ſometimes with men in ſundrie ſtates and degrees: whereby one while ſlaves only die of a plague,another while the Commons,and thoſe either artiſans in a citie,or peaſants and husbandmen of the countrey.

Now as touching the Worme, ſome trees are more ſubject unto it than others: and to ſay a truth,in manner all,more or leſſe; and that,the birds know well ynough, for with their bils they will job upon the barke,and by the ſound trie whether they be worme-eaten or no. But what ſay wee to our gluttons and belli-gods in theſe daies,who make reckoning among their daintie di-
C ſhes of worms breeding in trees; and principally of thoſe great fat ones bred in Okes, which wormes they call Coſſi,and are eſteemed a moſt delicat meat? Theſe forſooth they feed in mue, and franke them up like fat-ware,with good corne-meale.But above all others,Peare trees,Apple trees,and Fig trees,are ſooneſt worme-eaten: and if any trees eſcape,they be ſuch as are of a bitter wood in taſt,and odoriferous in ſmell.Touching thoſe worms that be found in Fig trees,ſome are engendred of themſelves,and of the very wood: others are bred of a bigger vermine called Ceraſtes.Howbeit,all of them(which way ſoever they come)are ſhaped in manner of the ſaid Ceraſtes, and make a certaine ſmall noiſe like the ſhrill and creaking ſound of a little criquet. The Serviſe tree likewiſe is haunted and plagued with little red and hairie wormes, which in the end doe kill it.The Medlar trees alſo when they be old,are ſubject to this maladie.

D As for the miſliking of trees [called Sideratio]wherby they conſume,wither away,and crumble to powder; it is a thing cauſed onely of the weather and influence of ſome Planet. And therefore in this ranke are to be raunged Haile, Blaſting with ſome untoward winds,and Froſts which bite and nip them to the heart. And verily it falleth out, that in a mild and warme Spring,when plants bee too forward and put foorth their ſoft buds and tender ſprouts over-ſoone, the blacke wind taketh them on a ſuddaine,and a certaine rime ſettleth thereupon, ſendging and burning the oilets of the Burgeons,whiles they be full of a milkie ſap: which accident, if it light in blooming time upon the bloſſome,is called properly Carbunculus[*i.*a Mieldeaw.]As for the Froſt at ſuch a time,it is far worſe than the blaſting aforeſaid: for when it falleth upon any trees or plants, it there reſteth and remaineth ſtill,it congealeth all into an yce, and no puffe of wind there is to
E remove and diſlodge it: for why? ſuch froſts commonly are not but in time of a ſtill, cleare, and calme aire. Touching that manner of Blaſting or miſliking called Sideratio, as if they were ſmitten with the maligne aſpect of ſome planet,this daunger chaunceth peculiarly by ſome drie and hote winds,which are buſie commonly about the riſing of the Dog ſtar,at what time we ſhall ſee young trees and newly graffed,to die outright,eſpecially Figge trees and Vines. The Olive,over and beſides the worme(whereto it is ſubject as well as the Figge tree)hath another greeſe and ſorance called in Latin Clavus,Fungus or Patella [*i.*a Knur,Puffe,Meazil or Bliſter]chuſe you whether: and nothing is it but a very ſendge or burne by the Sunne.

Furthermore,*Cato* ſaith,That the red moſſe is hurtfull unto trees.Oftentimes alſo we find that as well Olives as Vines,take harme by overmuch fertilitie and fruitfulnes. As for ſcab and skurfe,
F what tree is cleare of it? The running mange or tettar, is a miſcheefe peculiar unto the Fig tree: as alſo,to breed certaine Hoddy-dods or ſhell-Snailes ſticking hard thereto and eating it. And yet theſe maladies are not indifferent and alike in all parts of the tree. For thus you muſt thinke, that ſome diſeaſes are appropriate to one place more than another. For like as men are troubled with the Arthriticall torments, or the Gout; even ſo be trees: yea,& after two ſorts as well as they.

they: for either doth the disease take the way to the feet, that is to say, to the roots, and there breaketh out and sheweth it selfe; or els it runneth to the exteriour joynts and fingers, to wit; the small branches and top twigs, which be fartheſt remote from the maine bodie of the tree. Hereupon then begin they to drie, wither, and wax blacke: and verily the Greekes have proper names and tearmes respective to the one infirmitie and the other, which we in Latine want. Howbeit we are in some sort able to expresse the Symptomes following thereupon; and namely, when we say, first, That a tree is ill at ease, sicke, and in paine every where: anon, that it falls away, lookes ill, poore, and leane, when we see the fresh greene hew gone, and the braunches fraile and brittle: last of all, that it is in a wast, consumption, or fever hecticke, and dieth sensibly, to wit, when it receiveth no nourishment (or not sufficient) to reach unto all parts, and furnish them accordingly: and tame Figge trees of all others, are most subject hereunto; as for the wild, they be exempt wholly from all these inconveniences hitherto named.

Now as touching the scab or scurfe incident unto trees, it commeth of certaine foggie mists and clammie dewes, which light softly and leisurely after the rising of the Brood-hen starre Vergiliæ: for if they be thin and subtile, they drench and wash the trees well, and do not infect them with the scab: howbeit in case they fall downe right, or that there be an over great glut of showers and raine, the Fig tree taketh harme another way, namely, by soking of too much moisture into the root.

Vines, over and above the Worme and the Blast, have a disease proper unto themselves, called Articulatio, which is a certain barrennesse of theirs when they leese their spring in the verie joynt. And this may come upon three causes: the first, when by unseasonable and ill weather, as frost, heat, haile, or other forcible impressions of the aire, they forgoe their young sprouts: the second, (as *Theophrastus* hath well noted) if in pruning of them, the cut stand upward and open to the weather: the third, when they be hurt by those that have the dressing of them, for want of skill and taking good heed: for all these wrongs and inconveniences they feele in their joynts or knots. A severall kind of blasting or mortification there is besides in vines, after they have done blooming, which is called Roratio; namely, when either the grapes doe fall off, or before they come to their full growth, be baked (as it were) into a thicke and hard callositie. It happeneth also that they be otherwhiles sicke, in case after their pruning, their tender oilets or buds be either bitten with the frost, or sindged with some blast. The same befalleth likewise unto them upon some untimely or unseasonable heat: for surely in all things, a certaine measure and moderate temperature doth well, to bring them to their perfection. To say nothing of the wrong that is done unto them by the vine-masters themselves and husbandmen as they dresse and trim them, namely, when they bind them over-streight, as hath been said before; or when the labourer that diggeth about them, chaunceth to doe them one shrewd turne or other by some crooked crosse blow; or else when the ploughman at unawares doth loosen the root, or glaunce upon it with the share, and so disbarke the bodie of it: finally, they have injurie done unto them, in case the pruning-hooke be over blunt, and so give them a bruise. In regard of all these causes, they are lesse able to beare either cold or heat; for every outward injurie is readie to pierce their fresh galls, and a scald head is soone broken. But the tendereſt and weakeſt of all others, be the Apple trees, and namely, the hastie kind that bringeth sweet Iennitings. Howbeit some trees there be, which upon such feebleneſſe and hurt done unto them, become barren only, & die not; namely, the Pine and Date tree: for if a man fetch off their heads, you shall see them faile in bearing fruit, but this hurt will not kill them quite.

Moreover, it falleth out otherwhiles, that the Apples onely or other such fruits, as they hang, are diseased, when as the tree aileth nothing; to wit, if in due time they wanted raine, warmth, or winds that were needfull; or contrariwise, if they had too much of every one: for by such means they either fall from the tree of themselves, or els they are the worse for it, if they proove worth ought at all.

The greateſt displeasure that can happen to Vine or Olive tree, is, when in their very blooming they be pelted with violent showers of raine; for, togither with the blossome, downe goeth the fruit of them both. From the same cause, proceed the cankerwormes or caterpillers (a most daungerous and hurtfull kind of vermine to trees) which will eat out the greene bud, knot and all. Others there be that will devoure the blossome and leafe of Olives also, as in Miletum: and thus having consumed all the greene leaves, leave the trees bare, naked, and ill-favoured to the eye.

A eye. These wormes doe breed in moist and warme weather, and specially if there be thicke and foggie mists. Of the same vermine, there is another engendred, namely, if there ensue upon the former wet season, hoter gleames of the sunne more than ordinarie, which burne the foresaid wormes, and therefore chaunge them into other vermine. Moreover, there is a fault or imperfection besides, wherto Olives and Vines especially are subject, and this they call in Latine Araneus, [*i.* the Spider] when cobwebs (as it were) doe enfold and wrap their fruit, keeping them from growing, and so in time killing them. Over and besides, there bee certaine winds which sindge and burne Olives and grapes principally, yea and all sorts of fruits whatsoever. In some yeares also ye shall see all fruits worm-eaten, and especially Apples, Peares, Medlars, and Pomegranats, without any such hurt and offence to the trees that beare them. As for Olives, the worme
B sometimes doth them harme, otherwhiles good: for if the worme bee engendred and formed before it take the Olive, it consumeth and spoileth the fruit; but in case they breed within the kernel, it causeth the Olive to thrive the better, by eating the said kernell that drew away and sucked the humour which nourished it. The raine that falleth after the rising of the starre Arcturus, hindereth the generation of wormes, and preserveth fruits from beeing worme-eaten: and yet if the wind sit Southward in that time when it so raineth, such raines will breed wormes in Olives especially, called Drupæ; which beginning but then to ripen, are most readie to fall from the tree. And verily those trees which grow in waterie places or neare rivers, are most subject to have worme-eaten fruit, which although it fall not so soone, yet it is as loathsome every way.

Over and besides, there is a certaine kind of flie resembling the Gnat, which annoieth some
C trees and their fruits, and namely, Mast and Figs: and it seemeth that this flie is engendred of a certaine sweet humour that lyeth under their barkes. Thus much as touching all diseases to speake of, that trouble trees.

As for the impressions of the Aire at certaine seasons, as also of other accidents occasioned by the climat, they are not properly to bee called Maladies, becaufe they kill trees sodainly: as namely, when a tree is blasted outright, or all at once doth wither and drie away: like as when some puffe of an untoward wind peculiar unto any region, doth sucke them: such as in Apulia they call * Atabulus, and in Eubœa named Olympias: For if this wind chaunce to blow in mid-
D winter, it biteth, burneth, and drieth up trees with such cold blasts, as afterwards no heat of the Sunne is able to recover againe. In this sort likewise, all trees growing in vallies or standing along rivers sides, be endaungered: and above all others, Vines, Olives, and Figge trees. This death that they thus take, is soone after discovered and seene in the budding time when trees begin to put foorth, howsoever it be later ere the Olive shew it. Howbeit, a good signe it is in them all of their recoverie, when they loose their leaves: for you shall see the leaves tarie on in many of them, and when you thinke they are past the worst, sodainly die. Otherwhiles also you shall have the leaves to fade and seeme drie, yet afterwards the same trees to revive againe, and become greene. Furthermore, in the Northerly regions, as in Pontus and Phrygia, some trees there are that be ordinarily frozen to death; namely, when the frost and yce continueth after mid-winter fortie daies. And not onely there, but also in other countries, if immediatly after that trees have put foorth their fruit, there follow a hard frost, they will die upon it, although
E the frost last not many daies.

In a second ranke of causes that may kill trees, are to be raunged the injuries and wrongs that come by mans hand. Pitch, oyle, and grease, are very enemies and hurtfull to them all, but especially to young trees. Againe, if trees be barked round about, they will die all, unlesse it be the Corke tree; for it will thrive and prosper the better, if it bee in that wise discharged of the outward barke; for growing as it doth over thicke, it claspeth and clingeth the tree so hard, that it choketh and strangleth it againe. Neither doth the tree Adrachne find any hurt or offence by disbarking, unlesse the very wood be cut also togither with it. As for Cherrie trees, Lindens, and Vines, it is ordinarie with them to cast their barke in some sort, and take no harme thereby; but it is not the vitall and lively inner barke in deed which is next unto the bodie, but that onely
F which by comming of another underneath fresh and young, is driven forth and thrust out.

Some trees there be, which naturally have their barke full of chaps and rifts, as the Planes for example. As for the Line or Linden tree, if it chaunce to leese the barke, it will come in manner whole and entire againe. In such therefore the manner is, by way of cure to close up againe with clay and dung, the naked and bare place, and so to bring it to a cicatrize. And, I as-

* *quasi ἀήλιον, i. calamitatem aut pestem inferens.*

sure you, this practise sometimes speeds well, and doth the deed; provided alwaies, that the naked place were not surprised before the cure, with extremitie either of coid or heat. Certaine it is, that by this meanes both kinds of the Oke, as well the Robur as the Quercus, live the longer, and die nothing so soone as otherwise they would. And herein the time of the yeere ought to be considered, when a tree is thus pilled and disbarked: for in case that a man pill the barke of the Firre or Pine tree, during those moneths wherein the sunne passeth through the signes of Taurus or Gemini, which is the very season of their budding, there is no way but one with them, for presently they die: but if this wrong should befall them in winter, they would abide it the better and longer live, than beeing so misused either in Aprill or May. The same is the case of the mast Holme, the wild Robur also, and the common Oke. Howbeit, take this note by the way, that if the void place where the tree hath ben barked round about, be but narrow, so as the brims of the barke remaining be not farre asunder, the trees aforesaid will take no harme at all thereby. Mary in the tenderer sort, and such as a man may say are but of a weake complexion, and growing besides in a leane and hungrie ground, if the barke be taken away but of one side and no more, it is enough to kill them. G H

The like may be said of the topping or beheading the Cypresse, the Pitch tree, and the Cedar: for let these have their heads either cut off with an axe, or burnt by fire, they will die, there is no remedie. As much also is to bee said, when beasts doe brouse and eat them. As for the Olive tree, if a Goat chaunce but to licke thereof, it will thereupon proove barraine and beare no more Olives; so saith *Varro*, as wee have noted heretofore. But as some trees upon the like injurie done unto them, will die, so others againe will be but the worse for it; and such are the Almond trees: for where before they did beare sweet Almonds, they will ever after bring bitter. Moreover, you shall have some trees, that willl thrive and doe the better after this hard dealing, and namely, a kind of Peare tree called Phocis, in the Iland Chios: for you have heard by me alreadie, which trees they be that lopping and shredding is good for. I

Most trees, and in manner all (except the Vine, Apple tree, Fig tree, and Pomegranat tree) will die, if their stocke or bodie be cloven: and some be so tender, that upon every little wound or race that is given them, yee shall see them to die: howbeit, the Figge tree, and generally all such trees as breed Rosin, defie all such wrongs and injuries, and will abide any wound or bruse whatsoever.

That trees should die when their roots are cut away, it is no marveile: and yet many there be of them, that will live and prosper well neverthelesse, in case they be not all cut off, nor the greatest master roots, ne yet any of the heart or vitall roots among the rest. K

Moreover, it is often seene, that trees kill one another when they grow too thicke; and that, either by overshaddowing, or else by robbing one another of their food and nourishment. The Ivie also, that with clipping and clasping bindeth trees too hard, hasteneth their death. Misselto likewise doth them no good; no more than the Cytisus, or the herb Auro, which the Greekes name Alimus, growing about them. The nature of some plants is, not to kill and destroy trees out of hand, but to hurt and offend them onely, either with their smell, or els with the mixture and intermingling of their owne juice with their sap. Thus the Radish and the Lawrell doe harme to the Vine if they grow neare unto it: for surely the Vine is thought to have the sense of smelling, and wonderfully to sent any odours: and therefore it is observed in her by experience, That if shee be neare unto Radish or Lawrell, shee will turne away and withdraw her selfe backeward from them, as if shee could not abide their strong breath, but vtterly abhorred it as her very enemie. And upon the observation of this secret in Nature, *Androcydes* the Physician devised a medicine against drunkennesse, and prescribed his patients to eat Radish if they would not be overcome with wine. Neither can the Vine away with Coleworts or the Cabbage, nay it hateth generally all Woorts or pot-hearbs: it abhorreth also the Hazell and Filberd tree; in such sort, as a man shall sensibly perceive it to looke heavily and mislike, if those plants aforesaid grow not farther off from it. And now to conclude and knit up this discourse, would you kill a Vine out of hand? lay to the root thereof nitre or salt-petre, and alumne, drench it with hote sea-water: or doe but apply unto it Beane cods, or the shales or huskes of the pulse Ervile, and you shall soone see the operation and effect of a most ranke and deadly poison. I M

CHAP.

A

Chap. xxv.

Of many and sundrie prodigies or straunge tokens and accidents about trees. Also of an Olive plot, which in times past was transported all and whole from one side of an high port-way to another.

In this treatise of the faults and imperfections incident to trees, me thinks I should doe well to say somewhat of the supernaturall occurrences in them observed: for we have knowne some of them to grow up and prosper without any leaves at all. And as there have been vines and
B Pomegranats seene to beare fruit, springing immediatly from the trunke, and not from braunch or bough; so there have been vines charged with grapes, and not clad with leaves: and Olives likewise had their berries hanging upon them whole and sound, notwithstanding all their leaves were shed and gone.

Moreover, straunge wonders and miracles have happened about trees, by meere chance and fortune: for there was an Olive once, which beeing burnt to the very stumpe, revived and came againe: and in Bœotia, certaine Fig trees, notwithstanding they were eaten and gnawne most piteously with Locusts, yet budded anew and put forth a fresh spring. Also it hath been marked, that trees have chaunged their colour, from blacke to white. And yet this is not alwaies a monstrous thing beyond naturall reason, and specially in such as come of seed, as we may observe in
C the Aspe, which eftsoons turneth to be a Poplar. Some are of opinion, that the Service tree, if it be transplanted and come into a hoter ground than is agreeable to the nature therof, will leave bearing and be barrain. But it is taken for no lesse than a monster out of kind, that sweet Apples and such like fruits should proove sowre; or sowre fruit turne to be sweet: as also that a wild Fig tree should become tame, or contrariwise. And it is counted an unluckie signe, if any tree change from the better to the worse; to wit, if a gentle garden Olive degenerate into the wild and savage: if a vine that was wont to beare white grapes, have now black upon it: and so likewise if a Fig tree which used to have white Figs, chaunce afterwards to beare blacke. And here by the way, I can not forget the straunge accident that befell in Laodicea, where (upon the arrivall of K. *Xerxes*)
D a Plane tree was turned into an Olive. But if any man be desirous to know more of these & such like miracles, forasmuch as I love not to run on still and make no end, I referre him over to *Aristander* a Greeke writer, who hath compiled a whole volume and stuffed it full of such like wonders: let him have recourse also to *C. Epidius* a countreyman of ours, whose commentaries are full of such stuffe; where he shall find also, that trees sometimes spake.

A little before the civill warre brake out betweene *Iulius Cæsar* and *Pompey* the Great, there was reported an ominous and fearefull sight presaging no good, from out of the territorie of Cumes, namely, That a great tree there sunke downe into the earth so deepe, that a very little of the top-boughs was to be seene. Hereupon were the propheticall bookes of *Sibylla* perused, wherein it was found that this progedie portended some great carnage of men; and that the nearer that this slaughter & execution should be to Rome, the greater should the bloudshed be.
E A prodigious signe and wonder it is reputed also, when trees seeme to grow in places where they were not woont to be, and which are not agreeable to their natures; as namely, upon the chapters of pillars, the heads of statues, or upon altars: like as to see one tree of a divers and contrarie kind growing upon the top of another; as it befell about the cittie Cyzicum hard before the streight siege that was laid unto it [by *Mithridates*] both by sea and land, where a Fig tree was seene to grow upon a Lawrell. Likewise at Tralleis, about the time of the foresaid civill warre, a Date tree grew out of the base or foot of a columne that *Cæsar* Dictatour caused there to be erected. Semblably at Rome also, twise during the warre betweene the Romans and king *Perseus*, there was a Date tree knowne to grow * upon the lanterne or top of the Capitoll tem-
F ple; foreshewing those victories and triumphs which afterwards ensued, to the great honour of the people of Rome. And when this was by stormes and tempests overthrowne and laid along, there sprung up of it selfe in the very same place, a Figtree, at what time as *M. Messala* and *Caius Cassius* the two Censors, held their Quinquennall solemne sacrifices for the assoiling and purging of the citie of Rome: from which time *Piso* (a renowmed Historiographer and writer of good credit) hath noted, that the Romanes were given over to voluptuousnesse and sensualitie,

* or as some read, the head of *Iupiter* within the Capitoll.

and that ever since all chastitie and honest life hath been exiled. But above all the prodigies that were ever seene or heard, there is one that passeth, and the same happened in our age, about the very time that *Nero* the Emperour came to his unhappie end and fall: For in the Marrucine territorie there was an Olive garden belonging to *Vectius Marcellus*, a right worshipfull knight of Rome, which of it selfe remooved all and whole as it stood over the broad high way, to a place where lay tillage or erable ground: and the corne lands by way of exchange, crossed over the said causey againe, and were found in lieu of the Olive plot or hortyard aforesaid.

Chap. xxvi.

The remedies for the maladies and diseases of Trees.

NOw that I have declared the diseases of trees, meet it is that I should set downe the cure and remedies thereto. Where, this one thing would be first noted, that of Remedies, some be common to all trees, others appropriate to certaine. Common be these following, To bare and cleanse the roots, to hill and banke them again; that is to say, to give aire unto the roots, and let the wind into them: and contrariwise to cover them, & keep both wind and weather from them: to water them, or to derive and divert water from them: to refresh their roots with the fat liquor of dung: to discharge them of their burden, by pruning their superfluous branches. *Item* To give their humors issue, and as it were by way of Phlebotomie to let them bloud: and to skice and scrape their barke round about, in manner of scarification. To take downe their strength and keepe them under, that they be not too lustie and prowd. Also, if the cold hath caught their buds or burgeons, and therby caused them to looke burnt, rough, and unpleasant; to slicke, pollish and smooth them againe with the pumish stone. These verily bee the divers remedies to cure trees: howbeit, used they must bee with great discretion: for that which is very good for one, is not so good for another: and some trees require this course and others that, to bee taken with them. As for example, the Cypresse tree cannot abide either to be dunged or watered, it hateth all digging and delving about it, it may not away with cutting and pruning, it is the worse for all good Physicke, nay, all remedies to others, are mischeefes to it; and in one word, goe about to medicine it, you kill it. All Vines, and Pomgranat trees especially, love a life river-sides, and desire to be watered: for thereby will they thrive and prosper. The Fig tree also it selfe is nourished and fed in waterie grounds: but the fruit that it beareth, is the poorer by that meanes. Almond trees if they be plied with digging, will either not bloume at all, or else shed their flowers before due time. Neither must any yong plants or trees, newly grafted, be digged about their roots, before they have gathered sufficient strength, and begin to beare fruit. Most trees are willing inough to be disburdened of their superfluous and over-ranke braunches, like as we men can spare our nailes to bee pared, and bush of haire to be cut when they be overgrowne. As for old trees, they would bee cut down hard to the ground, for commonly they rise againe of some shoot springing from the root: and yet not all of them. Regard therefore must be had, that none be so used but such (as wee have noted before,) as are able of nature to abide it. For trees to be watered at the roots in the heat of summer, it is good, but in winter it is as bad. In the fall of the leafe it may be holesome, it may also be hurtfull, and therefore the nature of the soile would be considered: for the grape-gatherer in Spaine, meeteth with a good Vintage, notwithstanding the Vines stand in a marish and fennie ground; howbeit, in most parts of the world besides, it is thought good husbandrie to draine away from their roots the very raine water that falleth from above, in Autumne. About the rising of the Dogge-star, trees desire most of all to be well watered: and yet they would not have too much thereof, even in that time; for in case their rootes bee over-drenched and drowned therewith, they will catch harme. Herein also the age of trees is to bee respected, which in this case prescribeth what is meet and sufficient: for young trees bee lesse thirstie than others. Also, custome is a great matter. For such as have beene used unto watering, must not chaunge their old woont, but they require most of all others to be used so still. Contrariwise, those trees that grow upon drie grounds naturally, desire no more moisture than that which is needfull. In the territorie about Sulmo, in Italie, and namely, within the liberties of Fabianum, the Vines that beare the harder and sourer grapes, must of necessitie bee watered: and no marvaile, for the verie lands and corne-fields use to have water let in unto them. And here a wonderfull thing is to be observed, This water cherisheth the corne, but killeth all the hurtfull grasse among: and

A the river overflowing the lands, is as good as a weeding. In the ſame countrey the manner is in midwinter to open a ſluce or draw up their floud-gates, for to overflow their Vine roots with the river: and ſo much the rather, if either it be an hard froſt, or ſnow lie upon the ground: And why ſo? becauſe the pinching cold ſhould not burne them: and this they call there by the name of Tepidare, [*i.* to give them a kindly warmth as in a ſtouve:] ſee the memorable nature of this onely river, to be warme in winter; and yet the ſame in ſummer is ſo cold, that hardly a man can endure his hand in it.

Chap. xxvii.

Of caprification or ſcarifying trees: alſo the manner of dunging them.

B TOuching the remedies for blaſting as well by heat as cold, I will treat in the book next following. Meane while I cannot omit one manner of cure by way of Scarification. For when the barke is poore and leane, by reaſon of ſome diſeaſe or miſliking, ſo as it clenseth together, preſſing and binding the quick wood overmuch, whereby the tree is as it were hide-bound, they uſe to ſlit the ſame along with a very ſharpe cutting hooke, guiding and gaging the edge thereof with both hands, that it goe not over-deepe: and ſo by theſe inciſions they doe open it, and as it were loſen and enlarge the skin. Now, when this feat is wrought, the onely ſigne that it is well done and good for the tree, is this, if the inciſions in tract of time appeare wide, and the void place incarnate againe and fill up with a kind of callous ſubſtance, compounded of the ſap and wood together growing betweene. Whereby it appeareth, that in many caſes the cure of
C mens maladies and the diſeaſes of trees is very like: for that even their bones alſo uſe to be trepanized and bored through as well as ours. Alſo for to make ſweet Almonds of bitter, firſt the tree muſt bee digged round about, and then boared through with an augoer toward the root or butt end, whereby the wateriſh humor that runneth downward, may iſſue forth and paſſe away. Moreover, if a man would diſcharge Elmes of their ſuperfluous moiſture, they muſt be pierced with a wimble, a little above the ground, as far as to the very heart or pith; if either they bee old, or be perceived to receive overmuch nutriment. In like manner the ſame exceſſive humour is let out of Figge trees by the meanes of certaine light ſlits or gaſhes made in the barke, aſlant or byas, in caſe it ſeeme to ſwell and bee over-ſtreight: and by this deviſe they prevent the falling of their fruit.

D Generally, what trees ſoever bearing Apples or ſuch like ſoft fruit without, if they chaunce at any time to prove barren, that is to ſay, to put foorth leafe onely without any fruit; the uſe is, firſt to make a clift in the root; then, to put a ſtone therein, that the edges meet not and rejoin again; and ſo they become fruitfull. The ſame is practiſed in Almond trees alſo, but in ſteed of the ſtone there muſt a wedge of Okewood be driven in. As for Pyrries and Medlar trees, thoſe wedges muſt be made of Pine Torch-wood. Moreover, if either Vines or Figge trees, be over ranke of wood, it is very good to cut and skice their roots round about, and when they bee thus ſerved, to cover with aſhes the ſaid inciſions: but then they muſt be cloſe covered with aſhes and earth aloft. If yee would have trees beare Figges at the latter end of the yeare, plucke off the firſt greene Figges ſo ſoone as they bee ſomewhat bigger than Beanes: for under them there will other come up in
E the place, and be later ere they waxe ripe. The ſame Fig-trees when they begin to ſpring leafe and looke greene, if the top-twigs of every bough be cut off, become the ſtronger and more fruitfull by it. For as touching the ripening of Figges by Caprification, true it is, that there bee certaine flies like gnats engender in greene Figs, which are the occaſion thereof: for when they are flown out, there are no graines or ſeeds found within: whereby it is evident, that they bee turned into thoſe flies. And when they doe flie forth, ſo haſtie they are to be gone, that many of them as they breake out, leave either a foot or a wing behind them. Beſides, another kind there is of gnats, which they call Centrinæ, for ſlouth and ſhrewdneſſe like in all the world to Drone-bees, ſo miſcheevous they be to the good flies or gnats indeed, that cauſe the Figs to ripen: for, them they kill, and die themſelves when they have done. Moreover, there bee certaine wormes like mothes,
F that ordinarily doe much hurt to the graines or ſeeds within Figs, and eat them quite: The only remedie againſt this vermine, is to take a twig or impe of the Italian Lentiske tree, and to ſet or couch it with the wrong or top-end downeward, in the very ſame trench where the Fig tree was planted. For to have Fig trees beare moſt plentifully, take ruddle or red-earth tempered well with the lees or grounds of oile, after that the ſame is mixed with dung, poure it to the roots of the

trees when they begin to put forth leaves. Among wild Fig trees, the best are the black and those that grow in stonie grounds: for their Figges are fullest of cornes or graines within. And as for caprification, it would be practised after raine. And take this for a generall rule, That yee beware in any hand in curing of trees, least yee use a mischeefe for a remedie, a thing that commonly happeneth by over many medicines, or the same not applied in due season. For as it is very good for trees, to lop and cut off their boughs where they grow too thicke: so to be hacking and mangling of them every yeare, hurteth them as much. As for the Vine, it requireth pruning once a yeare: but the Myrtle trees, Pomgranate, and Olive trees, every two yeares; because they will quickly spring againe and shoot forth branches thicke. Other trees would not bee lopped so often. Neither is it good to cut or prune any whatsoever it be, at the fall of the leafe. Nay, they are not so much as to bee scraped, but in the pruning time, that is, in the Spring. All wounding of trees goeth to the very heart, and hurt the quicke, unlesse it be of those parts that are superfluous.

As great consideration there would be had in the manner of mucking them. No doubt, they love dung well: but carefull heed would be taken first, that none bee laid to their roots in the hotest season of the yeare. *Item*, That it be not greene, but throughly rotten: lastly, that it bee not over ranke nor stronger than is needfull. Swines dung burnes the roots of Vines, unlesse it bee five yeares old, or the Vines stand in some place where water is at commaundement, for to coole the excessive heat thereof. Also the filth of Tanners ooze and Curriers scrapings doe the like, if they be not well delaied with water. Likewise it must not be laid too thicke. The ordinarie proportion is thought to be for every tenne foot square, three Modij of dung. But herein no certainetie can be set downe: for the nature of the soile must rule all. With Swines and Pigeons dung, they use to soulder the cuts and wounds that are given to trees. In case the Pomgranates grow to bee tart and soure, the manner is to dig about the root and lay it bare, and then to put Hogs dung thereto: for that yeare the Pomgranates will be full of a wine juice; and the next yeare following prove sweet. Some good husbandmen there be, that thinke it meet and requisite foure times a yeare to water their roots with mans urine and shere water together, and upon every one they bestow a whole Amphore. Or else to bedeaw and sprinckle the top-braunches of the Pomgranat trees with wine, wherein Laser hath beene steeped. When the Pomgranate doth cleave and open upon the tree, it is good to wreath the steale thereof. If Figges doe the like, there would bee oile lees cast upon them. Other trees when they are amisse or doe mislike, ought to be drenched with wine lees: and Lupines if they bee set about their roots, will helpe them. The water also or decoction wherein Lupines were sodden, poured about the roots of Apple trees or such like, dooth them much good. If it happen to thunder about the feast Vulcanalia, Figges will fall from the tree. The remedie thereof is to strew the plots before with Barley straw. Would you have hastie Cherries? Lay lime to the roots of the tree, it will cause them to ripen their fruit speedily. Of all fruits these hastie Cheries would bee plucked and gathered as they ripen, to the end that those which be left behind, may thrive and grow big and faire.

Chap. xxviii.

Many and sundrie medicines serving for trees: to wit, remedies against venomous vermine and Pismires, likewise against all hurtfull beasts.

SOme trees there bee which are the better for wrong and injurie done unto them: yea, and if they be pinched or bitten, they shoot up the rather, as Date trees and the Lentisks; for even the very salt water nourisheth them. And true it is, that ashes hath the like nature and vertue that salt, howbeit, more mild and gentle. Hereupon it commeth also, that Fig trees use to bee strewed therwith, yea, and to be wet with the juice of Rue, to the end, that neither their fruit should prove worme-eaten, nor their roots putrifie and rot. Moreover, if Vines bee too full of moisture, and apt to bleed overmuch, it is an ordinarie thing to poure salt water to their roots. Also, in case their grapes be apt to fall, folke use to take ashes and besprinckle them with vinegre, and so to besmeare the roots therewith: or else with red Orpiment, in case the grapes be given to putrifaction. Say that Vines be barren and will not beare grapes, their roots ought to bee well drenched and dawbed with sharpe vinegre and ashes incorporate together. But what if a Vine bring not her fruit to full maturitie, before it begin to waxe drie and to wither? the superfluous wood ought to bee cut away about the root, and the cuts together with the small strings or beard of the root to

be

A be wet and soked in sharpe vinegre and stale chamber-lee, and then they should bee well covered and stopped with a kind of morter made therewith, and often digged about. As for Olives, if they make shew of small encrease, their roots must be bared and laid open to the cold in winter; for by this manner of chastisement they will amend and doe far better.

In all these remedies, proceed wee must according to the course of the yeare: for sometime the season requireth, that the meanes should be sooner used, and otherwhiles later. Some plants there be that fire is good for, and namely, canes and reeds: for if they be burnt, they will come up againe the thicker and more smooth. As for *Cato*, hee hath certaine compound medicines for trees, distinct by sundrie measures by him prescribed: for hee hath ordained to the roots of the greater trees an *Amphore, but of the lesse an *Vrna onely, of Oile dregs, with an equall quan-

B titie of water: all which being tempered together, he would have to be poured by little and little to the roots, but they ought before to be digged about and laid bare. And for the Olive, hee addeth moreover, that the roots should have a bed of litter or straw made before, and then used accordingly. In like manner also would the Fig tree be served: but especially at the roots of it there should bee raised a banke of old earth: for by that meanes it will come to passe, that the greene Figs will not fall, they will beare more plenteously, and the fruit bee more smooth and pleasant. To prevent in like manner, that the worme *Convolvulus bred not in a Vine, hee appointed two gallons of oile dregs or lees, to be boiled first to the thicke consistence of honie, and then afterwards to take a third part of the slime Bitumen, and a fourth part of brimstone, and seeth all to-

C gether againe in the open aire; for within dores there would be some danger of setting the house a fire. With this mixture, if a Vine bee well annointed about the joints, and under their hollow armepits, he assureth us, that there will no such worme breed therein. Some content themselves to perfume Vines onely with the smoke of this composition, so as it bee done on the wind-side, that it may carie the fume directly to them; and this should bee continued for three daies together. Many are of opinion, that wine being mingled with a like quantitie of water (because alone of it selfe it is hurtfull) is as good for this purpose as the oile dregs aboveseid, which *Cato* hath prescribed. Another kind of vermine or worme there is, that gnaweth the tender buds or burgeons of the Vine, and the same is called Volvox: To preserve Vines from this harmefull creature, men are wont to take their Vinehookes when they be newly ground & sharpened, then to scoure them with a Beavers skin, and with them to prune the Vines: or else after they bee pruned, to an-

D noint them with Beares bloud. Moreover, Ants or Pismires make foule worke otherwhile among trees. If you would drive them away, dawbe the stock or butt end with red Sinopre and Tar tempered together. Or doe but hang up any fish neare by, and all the Pismires will leave their former haunt, and gather about it. Others make no more adoe, but stampe Lupines with oile, and therewith annoint the roots. Many there are, who kill both them and Moldwarpes with oile dregs. Also, against Palmer-wormes or Caterpillers, and to keepe Apples from rotting, they give order for to annoint the top twigs and branch ends of trees with the gall of a greene Lizard. But more particularly against the said Caterpillars, they would have a woman whiles her monthly sicknes is upon her, to goe round about every tree by it selfe, barefooted and barelegged, unbraced and unlaced, and her haire hanging about her eares. Moreover, to preserve trees from wild and noi-

E some beasts, that none of them come neare to bruse and marre their greene spring, they doe appoint to bespreint their leaves with greene Cow or Oxe shearne, and water together, betweene some showers, that the raine may wash away the mallice and hurtfull qualitie of the medicine. A wonder to see how inventive men are to devise remedies for every mischeefe: for many you shall have, who be verily perswaded, that there be certain charmes and inchantments to drive away the haile. But for mine owne part, I thinke it meere mockerie to set downe the very words, although *Cato* hath done it before mee. Who also speaketh of another spell for dislocations or members out of joint (an accident happening to trees) which he would have to bee joined close within the clift of canes. The same writer hath permitted men to cut downe sacred groves, trees also dedicated for religion and sequestred from prophane use (after a solemne sacrifice to the gods first

F performed:) the reason and manner whereof he hath put downe in a certaine Treatise, which he compiled of purpose as touching that argument.

*Amphora, or, *Quadranta*, was a measure Roman of liquor, conthining 16 *Congij*, which is much about 16 wine gallons.

*Vrna, is halfe *Amphora*, to wit, 8 gallons, or thereabout.

* Vine fretter, or the Divels gold-ring.

THE

THE XVIII. BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

Chap. I.

Of the exceeding love and affection of our auncestors in old time to Agriculture and Husbandrie. Also, of their singular paines and diligence about gardens.

NOw followeth the treatise of Corne, of Gardens, and Flowers, and generally of all things else, that by the goodnesse of Nature the Earth bringeth foorth bountifully, besides Trees and Shrubs. The speculation whereof verily is infinite, if a man doe but consider the number and varietie of Hearbs and Flowers, togither with their odors and colours; the diversitie also of their juices, their severall vertues and properties, whether it be to cure men of their maladies, or to give them pleasure and contentment to their senses. But before that I enter into this discourse, very willing I am to take in hand the cause of the Earth (the common mother of us all) and to assist her against all slaunderous imputations, notwithstanding I have in the beginning of this my worke pleaded once alreadie in her defence. For when wee looke into the matter within her contained, we are set on fire inwardly to find fault with her for breeding and bearing noisome things, charging upon her our owne faults, and imputing unto her that, for which wee of right ought to be blamed. Set case shee hath brought forth poison and venime, Who hath searched them out but man? As for the foules of the aire and wild beasts, it is sufficient that they touch them not, nay they know how to beware and avoid them. For say that the Elephants doe file their teeth sharpe against hard trees, say that the Rhinocerotes whet their hornes against the rockes, and the wild Bores sharpen their edge tuskes against both stocke and stone; say that all creatures know well enough how to prepare and frobish their weapons to do mischiefe, Which of them all yet infect them with poison, but man alone? We have the cast to envenime and poison arrowes; we can tell how to put something to our darts of yron and steele, more hurtfull and mischievous than they be. It is ordinarie with us to poison rivers also; yea and the very Elements whereof the world doth stand, are by us infected: for even the Aire it selfe, wherein and whereby all things should live, we corrupt to their mischiefe and destruction. Neither can we truly say or thinke, that other creatures besides us are ignorant of these poisons; for wee have alreadie shewed, that they are not to seeke either what defensatives to provide against they should fight with serpents, or what remedies to find for their cure after they have fought and are hurt. Moreover, setting man aside, there is no creature furnished or armed with any other venime, but their owne. We cannot chuse therefore but confesse our great fault and deadly malice, in that we rest not contented with naturall poisons, but betake our selves to many mixtures and compositions artificiall, made even with our owne hands. But what say you to this? Are not some men themselves meere poisons by nature? for these slaunderers and backbiters in the world, what doe they else but launce poison out of their blacke tongues, like hideous serpents? what doe these envious persons, but with their malicious and poisonfull breath sindge and burne all before them that they can reach or meet with, finding fault with every thing whatsoever? Are they not well and fitly compared to these cursed foules flying in the darke, which albeit they sequester themselves from

A from birds of the day, yet they bewray their ſpight and envie even to the night and the quiet repoſe thereof, by their heavie grones (the onely voice that they uttet) diſquieting and troubling thoſe that be at reſt: and finally, all one they be with thoſe unluckie creatures, which if they happen either to meet or croſſe the way upon a man, preſage alwaies ſome ill toward, oppoſing themſelves (as it were) to all goodneſſe, and hindering whatſoever is profitable for this life. Neither doe theſe monſtrous and abominable ſprites know any other reward of this their deadly breath, their curſed and deteſtable malice, but to hate and abhor all things. Howbeit, herein may we acknowledge & ſee the wonderfull majeſtie of dame Nature: for like as ſhe hath ſhewed her ſelfe more fruitfull and liberall in bringing forth profitable and holeſome plants, in greater plentie than hurtfull and noiſome; ſo ſurely hath ſhe furniſhed the world better with good men
B and vertuous for the weale publicke. In which regard and conſideration, we alſo taking no ſmall joy and contentment (leaving theſe troubleſome ſpirits to themſelves for to broile and frie in their owne greace) will goe on forward and proceed to declare the reſt of Natures workes; and with the better reſolution, for that wee ſeeke more pleaſure and contentment in the paines and travaile that we take, than expect any fame or bruit of men afterwards. For why? we are in hand to ſpeake of the countrey and countrey commodities, ſuch as in old time like as they were moſt neceſſarie for this life, ſo they were accounted and honoured moſt highly.

Chap. II.

Of the firſt guirland or chaplet made of hearbs and flowers at Rome.

C THe firſt order that king *Romulus* inſtituted in Rome citie newly built, was the guild or fraternitie of certaine Prieſts or Wardens over corne fields, which were in number twelve. And for to doe the greater honour to this companie, he cauſed himſelfe to be called the twelfth brother among them: and *Acca Laurentia*, the nource or foſter-mother of this Prince, beſtowed upon him a guirland of corne eares, twiſted and tied togither with a white ribband, as the moſt ſacred badge and enſigne of this new prieſthood, which he and his brethren ſhould weare with great reverence and devotion: and this was the very firſt chaplet knowne at Rome. Now the honour of this ornament was perpetuall, and continued for terme of life; ſo as a man once inveſted therein, could not be degraded and deprived thereof, though hee were baniſhed or taken
D priſoner; it accompanied him ever to his dying day. Then, and in thoſe daies, every man within the whole bodie of the people of Rome, contented himſelfe with two acres of land, and K. *Romulus* aſſigned to none of his ſubjects a greater proportion: whereas now yee ſhall have thoſe that erewhile were but ſlaves and ſervants under the Emperour *Nero* (deſpiſing as not ſufficient, greene encloſures and gardens of that compaſſe) muſt have fiſhpooles alſo bigger than ſo: and well it were if they would ſtay there and goe no further, for ſhortly we ſhall ſee ſome one or other of them, never reſt untill hee have kitchins alſo more than two acres wide. And thus much for king *Romulus*.

King *Numa* his ſucceſſor, ordained to worſhip the gods with an oblation of corne, yea and to offer prayers and ſupplications unto them by no other meanes, than cakes made of ſalt and
E meale: yea and as *Hemina* mine author ſaith, for to induce the people of Rome the better unto it, he allowed them to parch their corne in their ſacrifices; for that corne thus parched, was ſuppoſed to be a more holeſome food: by which meanes, this one thing enſued in the end, that no corne was counted pure and good, nor fit to bee uſed in divine ſervice, but that which was thus baked or parched. He alſo inſtituted the feaſt Fornacalia, to wit, certaine holydaies for the parching and baking of corne: as alſo another as religiouſly obſerved, called Terminalia, namely, for the bounds and limits of lands: for theſe and ſuch like gods, as then, they worſhipped moſt: as alſo the goddeſſe *Seia*, ſo called *à ſerendo*, [*i.* of ſowing corne and ſetting plants:] and *Segeſta*, which name they gave her *à ſegetibus*, [*i.* of corne fields:] whoſe images wee at this day doe ſee in the grand Cirque or Shew-place at Rome. A * third goddeſſe there is among them, whome
F to name and invocate within-houſe, they might not with ſafe conſcience. Laſtly, ſo religious and ceremonious they were in old time, that they would not ſo much as taſt of new corn or wine, before the Prieſts had taken a ſey of the firſt fruits.

* *Tertiam*, to wit, *Tutelina*, ſo preſerving of trees planted, & corne ſowne: or as ſome read (*Terminum*) meaning *Terminus*.

Chap.

Chap. iii.

Of Iugerum, and Actus. Of the ancient lawes ordained for cattell in old time. How often and at what times corn and victuals were exceeding cheape at Rome. What noble and famous persons addicted themselves wholly to Husbandrie and Tillage.

AN Acre or Arpen of ground, called in Latine Iugerum, was as much as might be eared up or ploughed in one day with a yoke of Oxen. And Actus in Latine, is a land, or so much just as two Oxen are driven and occupied in, whiles they plough in one tract without any rest. This contained by the old time, a hundred and twentie foot in length: and being doubled in length, made the Acre or Iugerum abovesaid.

In auncient time of the old Romanes, the greatest present that could be given to captaines and souldiors who had borne themselves valiantly in the service of their countrey, was as much ground as they could have eared or broken up in one day. And it was thought a great reward to receive at the hands of the people of Rome halfe a pint (or a pint at the utmost) of corne. Moreover, in so great request was Corne and Husbandrie, that the first and cheefe houses in Rome took their surnames from thence: and namely, the *Pilumni*, who devised first the pestill to bray corne withall in their mils and back-houses: also, the familie of the *Pisones*, who tooke their name, *à pisendo*, [*i.* of stamping or pounding corne in a morter.] The *Fabij* in like manner, the *Lentuli*, and the *Ciceroes*, each one according to the severall pulse that they skilled best to set or sow. Moreover, to the house of the *Iunij*, they gave the surname of *Bubulcus*, by occasion of one of their ancestors, who knew passing well how to use and order Oxen. Over and besides all this, that you may know what regard was had of Corn, among other sacred and holy ceremonies, there was nothing reputed more religious than the bond of Confarration, in knitting up of mariages, and assurance making of the cheefe priests: yea, the manner of the new wedded brides was to carie openly before them a wheaten cake. In times past, the Magistrates called Censors, judged it a trespasse worthie of a great rebuke, to bee an ill husband, that is to say, to bee careless and negligent in tilling the ground. And as *Cato* reporteth, if men called one by the name of a good Husbandman, they were thought to have praised & commended him in the highest degree. Hereupon also it came, that rich and substantiall men were tearmed in Latine, Locupletes, as one would say, Loci-pleni, [*i.* well landed.] And as for the very word, Pecunia in Latine, which signifieth money, it tooke the name of Pecus, that is to say, cattell. And even at this day (as it appeareth in the Registers of the Censors, and the accounts of the citie chamber) all their rents, revenues, and customes growing unto the people of Rome, are called Pascua; for that a long time the whole domaine of Rome, stood upon pasturage and nothing else. The penalties and fines also, which offendants were put to pay, were raised of nothing else but of Kine, Oxen, and Sheepe: where, by the way, I cannot conceale from you the favourable regard that the auncient lawes and ordinances of Rome had; whereby it was expressely forbidden, That no Iudge who had power to enjoine or impose any paine and amercement, should name the fine of an Oxe, unless hee had passed that of a Sheepe first. The solemne games and plaies also in the honour of Kine and Oxen, they who frequented them, called Bubetij. Moreover, king *Servius* at the first when he made brazen coine, stamped the peeces with the portraiture of Sheepe, Kine, and Oxen. By the lawes of the twelve Tables, all persons whatsoever above foureteene yeares of age, were forbidden under paine of death, either by stealth, to feed their cattaile in the night time upon any corne-field of another mans, plowed and sowen; or to cut the same downe by syth or sickle at such a time, and in that manner. By the same lawes also ordained it was, That whosoever was attaint or convicted thereupon, should be hanged by the head and strangled for satisfaction of the goddesse *Ceres*: and in one word, to be more greevously punished than in case of manslaughter. But if the offender were under that age beforesaid, the same law provided, that he should be whipped at the discretion of the Pretor or lord cheefe Iustice for the time being: or, if this punishment were remitted by the partie who sustained the domage, then he should satisfie unto him for the trespasse as a slave, and pay double for the losse, according as honest and indifferent men valued it. Furthermore, in auncient time, the distinction of States and degrees in the cittie of Rome (both for wealth and worship) was according to their lands, and not otherwise. Insomuch, as those cittizens were reputed for cheefe and principall, who were possessed of land and living in the countrey: and these made the State, called the Rustick Tribes, in Rome: wheras contrariwise the other estate, reputed

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A the meanet in degree, was named the Vrbane Tribes; conſiſting of Artiſanes & ſuch like as were not landed perſons: into which, if a man were transferred from any of the reſt, it was thought a great ſhame and diſgrace, as if hee were reproched for idleneſſe and negligence in husbandrie. And hereupon theſe foure Tribes alone tooke name of thoſe foure principall parts or quarters of the citie wherein they were ſeated, to wit, Suburrana, Palatina, Collina, and Exquilina. Over and beſides, upon faires & market daies, the Ruſticke Tribes uſually viſited the citie: upon which daies therefore no publicke aſſemblies of the people were holden, to call the Commons away from their market affaires. Alſo the manner in thoſe daies was to take their ſleepe and repoſe in good ſtraw and litter. Yea, and when ſpeech was of glorie and renowne, men would call it by no other tearme but Adorea, of Ador, a kind of fine red wheat. Where, by the way, I have in great
B admiration the antique words of thoſe times, and it doth me good to thinke how ſignificant they were. For thus we read in the ſacred Pontificall Commentaries of the high prieſts, *For the Augurie or ſolemne ſacrifice called *Canarium, let there be certain daies appointed, to wit, before that the corne ſhew eare out of the hoſe, yea, and before that it come into it.* But to returne againe to the praiſe of Husbandrie. When the world was thus addicted and given to Agriculture, Italie was not only well provided and ſufficiently furniſhed of corne, without any helpe from out-provinces; but alſo all kind of graine and victuals were in thoſe daies ſo exceeding cheape, as it is incredible. For *Manius Martius* a Plebeian Ædile of Rome, was the firſt man that ſerved the people wheat at one Aſſe the Modius: and after him *Minutius Augurinus*, the eleventh Tribune of the Commons, (even he who endited that mutinous and ſeditious citizen *Sp. Melius*) brought downe the price of
C wheat for three market daies to an Aſſe the Modius. The people therefore of Rome, in regard of this good deed of his, erected a ſtatue for him without the gate Trigemina; and that with ſuch affection and devotion, that every man contributed ſomewhat thereto by way of benevolence. *Trebius* alſo in the time of his Ædileſhip, cauſed wheat to bee ſold unto the people at the ſame rate, to wit, one Aſſe a Modius. For which cauſe, there were two ſtatues alſo in memoriall of him ſet up, both in the Capitoll and alſo in Palatium: and himſelfe when he was departed this life, had this honour done unto him by the people, at his exequies, as to bee caried on their ſhoulders to his funerall fire. It is reported moreover, That in the very ſame yeare wherein the great goddeſſe *Cybele* (called alſo the mother of the gods) was brought to Rome, there was a more plentifull harveſt that Summer, and corne was at a lower price than had been knowne in ten years
D before. Likewiſe, *M. Varro* hath left in writing, That when *L. Metellus* made ſhew of ſo many Elephants in his triumph at Rome, a Modius of good red wheat, was worth no more than one Aſſe. Alſo a gallon of wine coſt no more. And as for drie Figges, thirtie pound weight caried no higher price: and a man might have bought a pound of oile Olive, and twelve pound of fleſh at the very ſame reckoning. And yet all this plentie and cheapeneſſe proceeded not from the great domaines and large poſſeſſions of thoſe private perſons that encroched upon their neighbors, and hemmed them within narrow compaſſe. For by the law publiſhed by *Stolo Licinius*, provided it was, That no Romane citizen ſhould hold in private above five hundred Acres. The rigor of which law or ſtatute was extended and practiſed upon the Law-maker himſelfe, and by vertue thereof he was condemned: who, for to poſſeſſe above that proportion, and to defraud the mea-
E ning of the ſaid Act, purchaſed more lands in the name of his ſonne. Lo what might be the proportion and meaſure of poſſeſſions allowed even then, when as the State and Common-wealth of Rome was in the prime and began to flouriſh. And as for the Oration verily of *Manius Curius* after ſuch triumphs of his, & when he had ſubdued and brought under the obeiſance of the Roman Empire and laid to their dominion ſo many forrain nations; what it was, every man knoweth, wherin he delivered this ſpeech, That he was not to be counted a good man, but a dangerous citizen, who could not content himſelfe with a cloſe of ſeven acres of ground. And to ſay a truth, after that the kings were baniſhed out of Rome, and their regiment aboliſhed, this was the verie proportion of land aſſigned to a Romane Commoner. If this be ſo, What might be the cauſe of ſo great plentie & abundance aforeſaid in thoſe daies? Certes, this & nothing els, Great LL. and
F generals of the field (as it ſhould ſeeme) tilled themſelves their ground with their own hands: and the Earth again for her part, taking no ſmall pleaſure (as it were) to be eared and broken up with ploughs Laureat, and ploughmen Triumphant, ſtrained her ſelfe to yeeld encreaſe to the uttermoſt. Like it is alſo, that theſe brave men and worthie perſonages were as curious in ſowing a ground with corne, as in ordinance of a battell in array: as diligent (I ſay) in diſpoſing and ordering

* Made with a red dog to pacifie the Dog-ſtarre.

ting of their lands, as in pitching of a field: and commonly every thing that commeth under good hands, the more neat and cleane that the usage thereof is, and the greater paines that is taken about it, the better it thriveth and prospereth afterwards. What shall wee say more? was not [*C. Atilius*] *Serranus* (when the honourable dignitie of Consulship was presented unto him, with commission to conduct the Romane armie) found sowing his own field and planting trees, whereupon he tooke that surname *Serranus*? As for *Quintius Cincinnatus*, a pursevant or messenger of the Senat brought unto him the letters patents of his Dictatorship, at what time as he was in proper person ploughing a peece of ground of his owne, containing foure acres and no more, which are now called Prata Quintiana, [*i. Quintius* his medowes] lying within the Vaticane: and (as it is reported) not only bare-headed was hee and open breasted, but also all naked and full of dust. The foresaid officer or sergeant taking him in this manner, Doe on your cloths sir (quoth he) and cover your bodie, that I may deliver unto you the charge that I have from the Senate and people of Rome. Where, note by the way, that such Pursivants and Sergeants in those daies were named Viatores; for that eftsoons they were sent to fetch both Senatours and Generall captaines out of the fields where they were at worke: but now, see how the times bee chaunged! They that doe this businesse in the field, what are they but bondslaves fettered, condemned malefactours manacled, and in one word, noted persons and such as are branded and marked in their visage with an hot yron? Howbeit the Earth, whome wee call our Mother, and whome we would seeme to worship, is not so deafe and senslesse, but she knoweth well enough how she is by them deprived of that honour which was done in old time unto her: in so much as we may well weet, that against her will she yeeldeth fruit as she doth; howsoever wee would have it thought, by these glorious titles given unto her, that shee is nothing displeased therewith, namely, to be laboured and wrought by such vile and base hirelings. But wee forsooth doe marveile, that the labour of these contemptible bondslaves and abject villaines doth not render the like profit, as that travaile in former times of great Captains and LL. Generals. And in verie truth, even among other forreine nations, it was counted a princelike profession in deed, to bee able for to give rules and directions about Husbandrie: for so we may see, that both kings have studied this argument, as namely *Hiero*, *Philometor*, *Attalus*, and *Archelaus*: and also martiall captaines, to wit, *Xenophon*, and *Mago* the Carthaginian. As for *Mago* verily, our Senat did him that honour after Carthage was woon, that in sacking it and giving away among divers LL. of Affricke, the Libraries there found; they thought good to reserve onely 28 volumes of his, and penned by him as touching Agriculture, and to have them translated into the Latine tongue (notwithstanding that *M. Cato* had alreadie beforetime put out in writing and set forth certaine rules and precepts therof;) giving order for this Translation, to those that were well seen in the Punicke or Carthaginian language: in which businesse, *D. Syllanus* a Romane gentleman of a right worshipfull house, went beyond all others. As for great schollers and men of profound and deepe learning, a number there were besides that travailed in this matter, whome wee have named alreadie in the forefront; and eftsoons shall mention in the discourse of this volume. In which raunge we must nominate not unthankfully among the meanest writers, *M. Varro*, who being fourscore yeeres old and one, thought it not amisse to compile a speciall booke and treatise of Husbandrie.

Chap. iiii.

The manner of Husbandrie in auncient time.

LAte it was ere the Romans began to set their minds upon Vines and Vineyards: for at first they tilled only corne fields for very necessitie, even as much as might suffice to serve the citie. The order and manner whereof, I will set in hand to treat of; not after a vulgar and common sort, but according to my usuall manner hitherto, more soundly: as having sought out with all care and diligence, not only the ancient practise in times past, but the inventions also of late daies; and withall, searched into the causes and reasons of every thing, & found them out. My purpose is besides, to speake in this treatise of the fixed Starres, their rising and setting, their apparition and occultation, togither with their influences, as they are undoubtedly observed and seen here upon earth. And this, my meaning is to doe after a plaine and familiar sort: for as much as they, who hitherto wrote of this argument, have handled the same so sweetly, and

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penned it with ſo high a ſtyle, as they may ſeeme to any man for to have written bookes for Orators to read, rather than to the capacitie of plaine husbandmen for to practiſe. Firſt and foremoſt therefore, I will for the moſt part deale by Oracles, that is to ſay, ſententious Sawes, for to determine this queſtion in hand: concerning which, there are as many to be found in number, and thoſe as true in effect, as in any other patt and profeſſion of this our life whatſoever. And leaſt any man ſhould thinke it ſtrange, that I call theſe rules of Husbandrie, Oracles; who would take them for leſſe, conſidering how they proceed from Time, a god moſt certein, and are delivered and approoved by Experience, the trueſt prophet of all others. And begin I will with *Cato* firſt.

Chap. v.

The praiſe and commendation of Husbandmen: what things are to be required in the purchaſing or taking to ferme of houſe and land.

THe children (ſaith *Cato*) that are begotten by Husbandmen, proove moſt valiant, the hardieſt ſouldiers, and ſuch as thinke leaſt harme of all others. In buying of land, take heed you be not too hot and ægre upon the purchaſe. In the husbanding of ground, ſpare for no paine & travell; but in the purchaſing therof be you nothing forward: a thing over-bought, hath evermore repentance, and had I wiſt, attending upon it. They that are about a purchaſe, ought above all, to ſee how the ground is watered, what waies and avenues be about it, & what neighbours be neare unto it. Out of every one of theſe points, matters of great importance and deepe concluſions may be picked, and thoſe moſt certein and infallible. *Cato* addeth moreover and ſaith, That there would bee good regard had of the people confining, and other grounds bounding thereupon, whether they bee well liking, faire, and trim to ſee unto? For theſe bee his words, It is a good ſigne (quoth hee) that the ferme is well ſeated and in a commodious quarter, if all about looke well. *Attilius Regulus* (he who during the firſt Punicke warre was twiſe Conſull of Rome) was wont to ſay, That a man ſhould not purchaſe an unholeſome peece of land, were it never ſo rich and fruitfull; nor make choiſe of a barraine ſoile, were it never ſo healthie. Now as touching the healthfulneſſe of a place, a man may not alwaies conclude thereof by the colour and freſh hew of the inhabitants: for many times it falleth out, that thoſe who be uſed to peſtilent places, hold out well and have their health; yea and by their looks bewray no harme that they take. Moreover, ſome quarters and coaſts there be, which at ſome times of the yeare ſtand ſound and healthie enough: but I will count none holeſome, but ſuch as be healthfull all the year long. An ill peece of land is that, which putteth the lord thereof to paine, and with which he is forced to wreſtle for to have his health. *Cato* would have this point eſpecially to be conſidered, That the ſoile of a ferme (ſituate as hath been ſaid) be good of it ſelfe, and fertile: alſo, that neare unto it there be ſtore of labourers: and that it be not farre from a good and ſtrong towne: moreover, that it have ſufficient meanes for tranſporting of the commodities which it yeeldeth, either by veſſels upon water, or otherwiſe by waines upon the land. Furthermore, that the manour houſe be well built, and the land about it as well husbanded. Howbeit, herein I ſee many men to erre much, and greatly to be deceived: for they hold opinion, that the negligence and ill husbandry of the former lord, is good for him that ſhall purchaſe land and come after him. But I ſay, there is nothing more daungerous and diſadvantageous to the buyer, than land ſo left waſt and out of heart: and therefore *Cato* giveth good counſell, to purchaſe land of a good husband, and not raſhly and hand over head to deſpiſe and ſet light by the skill and knowledge of another. Who ſaith moreover, That as well land as men (which are of great charge and expence) how gainfull ſoever they may ſeeme to bee, yeeld not much profit in the end to the maſter *de claro*, when all counts be caſt and recknings made. He therfore judgeth, that the Vine yeeldeth the beſt revenue, of all commodities belonging to a ferme: and good reaſon he hath ſo to ſay, becauſe above all things he taketh order to cut off expence as much as may be. Next to it, hee reckoneth Hortyards, ſuch eſpecially as have water at commaund: and good cauſe why, provided alwaies that they lie under a good towne ſide. [In the third place he raungeth the Oſier plots, and after them Olive rewes:] then he counteth of medows, which our auncеſtors called Parata, as a man would ſay, Readie and Provided. The ſame *Cato* being asked, What was the moſt aſſured profit riſing out of land? made this anſwer, *To feed cattaile well:* beeing asked againe, What was the next? *Mary* (quoth hee) *to feed in a meane.* By which anſwers hee would ſeeme to conclude, that the

moſt certein and ſure revenue was that, which would coſt leaſt. Howbeit, this is not ſo generall a rule, but it may alter according to the diverſitie of places, and ſundrie occaſions occurrent. Hereunto alſo is to be referred another ſpeech of his, That a good husbandman ought to be a ſeller, [and not a buyer:] as alſo, That a man ſhould make ſpeed in his youth, and not delay to plant and ſtocke his ground; but not to build thereupon, before it bee well and throughly ſtored that way: and even then alſo, he ſhould not be forward thereto, but take leiſure ere hee be a builder: for it is the beſt thing in the world (according to the common proverbe) To make uſe and reape profit of other mens follies: provided alwaies, that a mans land bee not over-built, leaſt the expence of keeping all in good repaire, be chargeable and burdenſome. Now when there is a ſufficient and competent houſe builded thereupon, a good husband will uſe to repaire often thereunto, and take pleaſure ſo to doe: and verily a true ſaying it is, That the lords eye is far better for the land, than his heele. G H

Chap. VI.

How to chuſe a convenient place for to build a manour houſe in the countrey. Alſo certein rules obſerved in auncient time, as touching Husbandrie and tilling ground.

IN building upon a mans land, this mean and moderation is commended, That the houſe be anſwerable in proportion to the ground: for as it is a bad ſight to ſee a large domaine and circuit of ground without a ſufficient graunge or home-ſtall to it; ſo it is as great a folly to over-build the ſame, and to make a faire houſe where there is not land enough lying to it. Like as there were two men at one time living, who faulted diverſly in this behalfe; to wit, *L. Lucullus* and *Q. Scævola*, for the one was poſſeſſed of faire lands without competent building therto, whereas *Lucullus* contrariwiſe built a goodly houſe in the countrey, with little or no living adjoyning to it: in which regard, checked he was by the Cenſors, for ſweeping more floures than he ploughed lands. Now in building, there would be Art and cunning ſhewed: for even of late daies *C. Marius* (who had been ſeven times Conſull of Rome) was the laſt man that built an houſe within the territorie of the cape Miſenum, and he ſeated it ſo, as if he had pitched and fortified a camp right skilfully; in ſuch ſort, that when *Sylla* ſurnamed *Fælix*, [*i.* Happie] ſaw his manner of building, he gave out and ſaid, That all the reſt in compariſon of him, were blind beetles, and knew neither how to build nor to encampe. Well then, a houſe in the country would be ſet neither neare unto a fennie and dormant water, ne yet over-againſt the courſe and ſtreame of a running river. And yet, what ſaith *Homer* beſides to this purpoſe? The aire and miſts (quoth he, and that right truly) ariſing from a great river betimes in a morning before day-light, cannot chuſe but be ever cold and unholeſome. How then? mary if the countrey or climat be hot, an houſe muſt ſtand into the North; but in caſe the quarter be cold, it ought to affront the South: if the tract bee temperate betweene both, it ſhould lie open upon the Eaſt point, where the ſun riſeth at the Æquinoxes. I K 1 2 3

As touching the goodneſſe of the ſoile, and namely what ſignes and markes there be of it; although I may ſeeme to have ſufficiently ſpoken alreadie, in the diſcourſe which I had of the beſt kind of ground, yet I am content to ſubſcribe to other tokens thereof delivered by other men, and eſpecially by *Cato* in theſe words following: *When you ſee* (quoth hee) *growing upon any land, ſtore of Walwort, Skegtrees, Brambles, the little wild Bulbous, Crowtoes*, [called otherwiſe our ladies Cowſlips] *Claver-graſſe or Trifoile, Melilote, Oke, wild Pyrries, and Crabtrees; know yee, that theſe doe ſhew a ground good for Wheat, and ſuch like white-corne.* So doth alſo the blacke mould and that of aſhes colour, teſtifie no leſſe. Where there is ſtore of chalke or plaſtre, the ground is not ſo fit for corne; for all kind of chalke doth heat over-much, unleſſe the ſame be very leane. The like doth ſand alſo, if it be not paſſing fine and ſmall. And the effects aboveſaid are much more ſeene in the plaines and champaine vallies, than upon the hills and mountaines. Our anceſtours in old time thought it a principall point of Husbandrie, not to have overmuch ground about one graunge: for they ſuppoſed more profit grew by ſowing leſſe, and tilling it better: of which mind I perceive* *Virgil* was. And to ſay a truth, confeſſe we muſt needs, That theſe large enclo-ſures and great domaines held by privat perſons, have long ſince been the ruine of Italie, and of late daies have undone the provinces alſo thereto belonging. Six landlords there were and no more, that poſſeſſed the one moitie of all Africke, at what time as the Emperour *Nero* defeated L M

** Laudat ingentia rura, Exiguũ colito.*

and

A and put them to death. Where, by the way, I may not defraud *Cn. Pompeius* of the due glorie anſwerable to that greatneſſe of his, who never in all his life would purchaſe any ground that butted or bordered upon his owne land. *Mago* thought it no reaſon, but a very ungentle and unkind part for the buying of land, to ſell a manſion houſe: and in his conceit, it prejudiced much the weale-publicke. And verily this was the principall point that he recommended in the entrance of his treatiſe and rules ſet downe for Husbandrie: ſo as a man might perceive very evidently, that he required continuall reſidence upon the land. Next to theſe principles abovenamed, great regard would be had in chuſing of good and skilfull bayliffs of the Husbandrie, concerning whom *Cato* hath given many rules. For mine owne part, it ſhall ſuffice to ſay thus much onely, That the lord ought to love his bayliffe very well, and ſet him next to his heart: but himſelfe ſhould not let
B him know ſo much. Moreover, I hold it the worſt thing that is, to ſet ſlaves and condemned perſons in their gyves and chains, about tilling and husbanding of a ferme: neither do I like of any thing done by ſuch forlorne and hopeleſſe perſons; for lightly nothing thrives under their hand. I would put down one ſaying more of our ancient forefathers, but that haply it may ſeem a fond and raſh ſpeech, yea and altogither incredible, and that is this, *Nothing is leſſe profitable and expedient, than to labour a ground exceeding much, and to overtill it. L. Tarius Rufus*, a man of very baſe and low parentage deſcended, & yet advanced to the Conſular dignitie for his proweſſe in feats of armes, was otherwiſe very thriftie and ſparing, after the manner of the old world; inſomuch as partly by his niggardiſe and partly through the liberalitie of *Auguſtus Cæſar*, hee had gathered good togither amounting to the ſum of an hundred millions of Seſterces: all which maſſe of mo-
C ney, what with purchaſing land to land in the Picene countrey, and what with beſtowing ſuch a deale of husbandrie upon it, more ywis of a vaineglorie and oſtentation, than for any profit that he reaped thereby, he laid forth and ſpent every whit of that ſtock; inſomuch as hardly he could find any man that would take upon him to be his executour, or to accept ſimply of the inheritance. What ſhall we ſay then? or what good commeth of ſuch houſes or lands ſo chargeable, as that they are like to coſt a man his life, and that by famine? I hold therefore, that in all things a meane is beſt, and bringeth greateſt profit in the end. To till and husband ground well, is neceſſarie; to over-doe the ſame and to exceed, turneth more to the damage than the profit of the lord, unleſſe it were done by his owne children, or to maintain the charge of keeping ſuch hinds as otherwiſe muſt be found if they ſat ſtill and did nothing: for ſetting that cauſe aſide, it falleth
D out many times, that the gathering and inning of ſome harveſt (if a man count all the paines employed and the money of the purſe) is nothing beneficiall to the maſter. In like manner, Olives would not alwaies be tended and looked unto overmuch: neither do ſome grounds require much diligence, but are the worſe for ſuch attendance: as may be ſeen (by report) in Sicily; which is the cauſe that new commers thither for to be tenants, and to occupie thoſe lands, are many times deceived and put beſides their reckoning.

After what manner then ſhall we proceed in the Husbandrie of our land to moſt benefit and behoofe? Learne a rule out of this oracle or ſententious riddle, which goeth in this forme; *Malis bonis*, [*i.* Cheapeſt; Beſt.] But herein, me thinkes, good reaſon it is, that our old great grandfathers ſhould be defended and excuſed for holding theſe ſtraunge and obſcure paradoxes; they
E (I ſay) who by ſuch rules and precepts, tooke great care and paines to inſtruct us how to live. Would you know then what they meant by this word *Malis*? ſurely they underſtood thoſe that were cheapeſt and ſtood them in leaſt. The chiefe point of all their providence and forecaſt, was to goe the neareſt way to worke, and to bee at the ſmalleſt coſt: and no marveile; for who were they that gave out theſe thriftie precepts? even thoſe, who reproached a victorious Generall (and one who triumphed over the enemie) for having a cupbourd of ſilver plate weighing but ten pound: thoſe (I ſay) who if their bayliffs of husbandrie chaunced to die, whereby their lands in the countrey ſtood void, would make ſuit to be gone themſelves thither, and to returne to their owne fermes, leaving behind them the glory of all their victories by them atchieved: and to conclude, even thoſe who whiles they were employed in the conduct of armies, had their
F grounds looked unto and tilled at the charges of the common-weale, and had no other for their bayliffs than the noble Senators of Rome. From their mouths came theſe other oracles and wiſe ſentences following: An ill husband is he, who is forced to buy that, which his ferm might affourd him. As bad is that houſholder and maſter of a family, who doth that in the day which might be doh by night, unleſſe unſeaſonable weather drive him to it. A worſe than either of theſe is he, who

doth that upon work-daies which ſhould have been done on play daies or idle holidaies: but the G
worſt of all other is he, who when the weather is faire, will chuſe to work rather within cloſe houſe
than abroad in the open field. And here I cannot hold and rule my ſelfe, but I muſt needs alledge
one example out of auncient hiſtories, whereby it may bee underſtood, How it was an ordinarie
matter to commenſe actions and to maintaine pleas in open court before the bodie of the peo-
ple in the caſe of Husbandrie: as alſo in what ſort thoſe good Husbandmen of old time were
wont to defend their owne cauſe when they were brought into queſtion. And this was the caſe.
There was one *C. Furius Creſinus*, late a bondſlave, and newly enfraunchiſed, who after that hee
was ſet at libertie, purchaſed a very little peece of ground, out of which hee gathered much more
commoditie than all his neighbors about him out of their great and large poſſeſſions: whereup-
on he grew to be greatly envied and hated, inſomuch, as they charged him with indirect meanes, H
as if he had uſed ſorcerie, and by charmes and witch-craft drawne into his owne ground that en-
creaſe of fruits, which ſhould otherwiſe have growne in his neighbours fields. Thus upon com-
plaint and information given, he was preſented and endited, by *Spurius Albinus*, an Ædile Cu-
rule for the time being: and a day was ſet him downe peremptorily for his perſonall appearance
to anſwere the matter. He therefore fearing the worſt, and doubting that he ſhould be caſt to pay
ſome greevous fine; at what time as the Tribes were readie to give their voices, either to acquit
or condemne him, brought into the common place his plough, with other inſtruments and fur-
niture belonging to husbandrie: hee preſented likewiſe in the open face of the court, his owne
daughter, a luſtie ſtrong laſſe and big of bone; yea, and (as *Piſo* telleth the tale) well fed, and as
well clad: he ſhewed there (I ſay) his tooles and plough yrons of the beſt making, and kept in as
good order; maine and heavie coulters, ſtrong and tough ſpades, maſſie and weightie plough- I
ſhares, and withall his draught Oxen, full and faire. Now, when his courſe came to plead his own
» cauſe before the people, and to anſwere for himſelfe, thus he began and ſaid: My Maiſters (quoth
» he) you that are citizens of Rome, behold, theſe are the ſorceries, charmes, and all the inchaunt-
» ments that I uſe (pointing to his daughter, his Oxen, and furniture abovenamed:) I might beſides
» (quoth he) alledge mine owne travell and toile that I take, the earely riſing and late ſitting up ſo
» ordinarie with mee, the carefull watching that I uſually abide, and the painefull ſweats which I
» daily endure; but I am not able to repreſent theſe to your view, nor to bring them hither with
» me into this aſſemblie. The people no ſooner heard this plea of his, but with one voice they all
acquit him and declared him unguiltie, without any contradiction. By which example verily, a
man may ſoone ſee, that good Husbandrie goeth not all by much expence: but it is paines taking K
and carefull diligence that doth the deed. And hereupon came the old ſaid ſaw, ſo rife in everie
mans mouth, that The only thing to make ground moſt fertile and fruitfull, is the Maiſters Eye.
As for all other rules and precepts of Agriculture, reſpective to this or that peculiar point of hus-
bandrie, I will deliver them in their proper places accordingly. And in the meane time I will not
omit ſuch as be more generall, as they ſhall come into my mind and remembrance. Firſt & for-
moſt, there offereth it ſelfe unto me one above the reſt, whereof *Cato* is the Author, and which of
all others I hold to be moſt profitable and ſounding to civilitie, to wit, that in all our doings we
» aime at this, To have the love and good will of our neighbors: and that for many and ſufficient
» reaſons by him alleadged, which I ſuppoſe no man will make any doubt of. *Imprimis*, Hee giveth L
» a good caveat, That our ſervitours and people about us be not ſhrewd, but well ordered, and that
» none of our familie be ill diſpoſed to offer any wrong. *Item*, All good husbands agree in this,
» That nothing would be done too late & when the time is overhipt. And againe, That every work
» ſhould have the due & convenient ſeaſon: To the ſame effect there is a third admonition, name-
» ly, That when the opportunitie is once paſt, in vain we ſeeke to recall and recover it. As touching
a rotten and putrified ground, we have at large ſhewed alreadie how much *Cato* doth abhor and
curſe it. And yet he ceaſeth not to forewarne us of it, and beſides, to give us theſe rules follow-
ing. What worke ſoever may bee performed by a poore Aſſe, is thought to coſt little or nothing,
and to be done very cheape. Fearne or Brake will die at the root in two yeares, if you will not ſuf-
fer it to braunch and grow above ground: and this ſhall you hinder moſt effectually, in caſe you M
knap off the head of the firſt ſpring with a wand or walking ſtaffe: for the liquid juice dropping
downe from them, doth kill the root. It is commonly ſaid alſo, that if they be pulled up about the
Summer Sunneſtead, they will not come againe but die: as alſo, if they bee topt, or their heads
whipt off with a reed: or if they be cared up with the plough, ſo as there be a reed faſtened to the

ſhare.

A ſhare. Semblably,for to kill reeds,they give order to plough them up, with ſome Fearne likewiſe laid upon the ſhare. A ruſhie ground muſt be broken up and turned over & over with the broad ſpade: but if it be ſtonie,it would be digged with a mattocke or two tined forkes.Rough grounds and given to beare ſhrubs,if a man would ſtorke,the beſt way is to burne them up by the roots. If the place lie low,and be overmoiſt,the only meanes to make it ſound and drie, is to draine away the water by trenching.In caſe a ground do ſtand upon chalke or plaiſter,the ditches or trenches therein ſhould bee left wide open: but if the ſoile bee more looſe and not ſo faſt, they muſt bee ſtrengthened and kept up with quicke-ſet hedges,for feare of falling: or elſe they ought to bee made in ſuch ſort, as both the ſides thereof bee well bedded and couched, bearing out a bellie aſlope, and not digged plumbe downeright. Some would bee cloſed up above and made very
B ſtreight and narrow,for to run directly into others that are more wide and large: alſo,if occaſion doe ſo require, the bottome of their channell would bee paved with pebble, or laid with good gravell. As for the mouth and end therof(to wit,for entrance,and iſſue)they ought both of them to be fortified and underſet with two ſtones at either ſide, and a third laid croſſe over them. Laſt of all,if a ground run to wood and bee overgrowne therewith, *Democritus* hath taught us the meanes how to kill the ſame in this manner,Take Lupine flowers,let them be ſteeped one whole day in the juice of Hemlocke,and therewith beſprinckle and drench the roots of the ſhrubs that overrun the place,and they will die.

Chap. vii.

C *Sundrie ſorts of corne,and their ſeverall natures.*

NOw that wee have thus ſhewed the way how to prepare a field for to beare corne,it remaineth to declare the nature of Corne. And to ſpeake generally of all graine,there are two principall kinds therof,to wit,firſt Fourment,containing under it Wheat and Barley,and ſuch like:ſecondly,Pulſe,compriſing Beanes,Peaſe,Chiches,&c. The difference obſerved both in the one ſort and the other,is ſo evident and plaine, that needleſſe it is for me to uſe any words thereof. And as for the former kind called Fourment,it is devided alſo into ſundrie ſorts,according to the ſeverall ſeaſons wherein they bee ſowne.Firſt there is the Winter corne,which being ſowed about the ſetting of the ſtar Vergiliæ, *i.* in November, lieth all winter long in the ground, and there is nouriſhed,as for example,Wheat,Rie,and Barley.Secondly,Summer corne,which
D is put into the earth in Summer about the riſing of the foreſaid ſtar Vergilia, *i.* the Brood-hen,to wit,in May,namely,Millet,Panicke, Horminum,and Irio [two kinds of graine.] But note that I ſpeake here of the manner uſed in Italie. For otherwiſe in Greece and Aſia, they ſow all indifferently at the retrait or occultation of Vergiliæ.And to come again to our Italie,ſome grain there is which is ſowne there,both in Winter and Summer: as alſo,you ſhall have other corne ſowed in a third ſeaſon,to wit,in the Spring.Some there be who take for Spring-corne,Miſſet,Panicke, Lentils,cich Peaſe,and the graine wherof*Fourmentie is made.But Wheat,Barley,Beanes,Na- *Alica.
vews,Turneps,and Rapes,they hold for Sementina, *i.* to be ſowed at the proper and timely ſeaſon of ſeeds, *i.* in Autumne.In that kind of corne which comprehendeth Wheat,there is to be reckoned that graine which ſerveth for provender and forage,and is ſowne for beaſts,and namely,that
E which they call dredge or ballimong. Likewiſe,in the other kind,to wit,of Pulſe,the Vetches bee compriſed.But that which is good indifferently both for man and beaſt,is the Lupine. All ſorts of Pulſe called in Latine Legumina,unleſſe it be the Beane, have but one root apeece; and ſuch bee as hard as wood, and full of ſhoots,and thoſe devided into forked braunches: and the roots of the cich Peaſe run deepeſt into the ground. But all other corne under the name of Frumenta, have many ſmall fillets or ſtrings appendant to their roots,and otherwiſe branch not. As for Barley,it chitteth and begins to ſhew within ſeven daies after it is firſt ſowne. All ſorts of Pulſe appear above ground by the fourth day or the fift at the uttermoſt. And yet Beanes ordinarily do lie in the ground fifteen or twentie daies.Howſoever in Ægypt all Pulſe commeth up by the third day. In Barley, one end of the ſeed runneth to root downeward, and the other into blade, and that
F *bloumeth firſt. Now,if you would know which end ſerveth for the one and the other; certain it *No marvell being ſowed before winter.
is,that the bigger and thicker part of the grain yeeldeth root,and the ſmaller the greene blade.In all other ſeeds there is no ſuch diverſitie,for from one and the ſame end breaketh out both root and greene blade. All kind of corne carying ſpike or eare,called Frumenta,ſhew nothing but the greene blade during winter: howbeit,no ſooner commeth the ſpring,but they begin to grow up

into ſtraw, and to ſpindle upward pointwiſe, I meane all that bee of the Winter kind. But Millet G
and Panicke run up into an hollow ſtem full of knots and joints: and Seſama by it ſelfe into a kex
or hollow ſtemme in manner of fewell and ſuch like. The fruit or ſeed of all graine that is ſowne
or ſet, is contained either within eares, as wee ſee in (bearded) Wheat and Barley, and the ſame
is defended (as it were) with a pallaiſade of eales, diſpoſed ſquare in foure rankes; or, is encloſed
within long cods and huskes, as the Pulſe kind; or elſe lieth in little cups, as Seſame and Poppie.
Millet and Panicke onely put forth their fruit grape-wiſe and openly, without any partitions and
defenſes, ſo as their ſeed is expoſed to the little birds of the aire: for no otherwiſe are they defen-
ded, than within ſmall skins and thin huls. And as for Panicke, it taketh the name of certain pa-
nicles or chats hanging from the top thereof, whereby the head bendeth and leaneth downward,
as if it were weake and wearie of the burden. The ſtem or ſtalke therof groweth ſmaller and ſmal- H
ler, and pointed upward: inſomuch, as by little and little it runneth up in manner of a little ſprig
or ſion, and there you ſhall ſee a number of ſeeds or graines cluſtered together thicke, inſomuch
as they are ſometimes bunched with an head a good foot long. As touching the Millet, the head
thereof bearing ſeed round about, is bent likewiſe and curbed, beſet alſo with fringes (as it were)
of hairie fillets. But to returne to Panicke againe, there be ſundrie ſorts thereof: for ſome of it is
found with a tuft or bunch, from which depend certain ſmall cluſtered chats or panicles, and the
ſame alſo hath two knaps or heads, and this is called Mammoſum: as one would ſay, the Panicke
with bigs or dugs. Moreover, you ſhall have Panicke ſeed of ſundrie colours, white, blacke, and
red, yea, and purple. Of Myll or Myllet, there be diverſe ſorts of bread made in many places; but
of Panicke it is not ſo common: howbeit, there is no graine more ponderous and weightie than I
it, or which in the ſeething or baking ſwelleth and riſeth more; for, out of one Modius or pecke
thereof, there is ordinarily made ſixtie pound of dough for bread. Moreover, take but three ſex-
tares or quarts of it being ſteeped, and it will yeeld a meaſure called Modius of thicke grewell or
batter, called in Latine Puls. It is not fully tenne yeares, ſince there was a kind of *Millet brought
out of India into Italie, and the ſame was of colour blacke, the ſeed or graine in quantitie big and
faire, and for ſtem like unto a reed. It riſeth up in height ſeven foot: the ſtalkes are mightie and
great, ſome call them Lobæ or Phobæ. Of all ſorts of Corne it is moſt fruitfull & yeeldeth grea-
teſt encreaſe: for of one graine a man ſhall have three ſextars or quarts againe. But it loveth, yea
and ought to be ſowne in a moiſt ſoile.

* i. Turkiſh Millet.

Moreover, ſome kinds of ſpiked corne begin to ſpindle and gather eare at the third joint: o- K
thers at the fourth: but there it lieth as yet hidden and encloſed. Now as touching theſe joints,
Wheat beareth uſually foure. Beere Barley ſixe, and the common Sprit Barley eight, which is
well to be conſidered: for no corne uſeth to ſpier before it be fully knotted or jointed in manner
aboveſaid. And ſo ſoone as the ſaid ſpire ſheweth ſome hope of an eare, within foure or five daies
after at the moſt, they begin to bloume: and in as many daies ſpace, or little more, they will have
done, and ſhed their flowres. And yet I muſt needes ſay, that all ſorts of Barley are a ſeven-night
at the utmoſt in ſo doing. *Varro* ſaith, that in foure times nine daies this kinde of corne com-
meth to perfection: but it ought to ſtay nine moneths before it be ripe and readie for to be
reaped, or mowed downe. As for Beanes, after they be ſet or caſt into the ground, firſt they put
forth leafe, and afterward ſtalke, that ſhooteth up even without any partition of joynts or knots L
betweene. All other pulſe, beſides the Beane, have a more ſolide and woodie ſubſtance in their
ſtraw. Of which, the Cich peaſe, the Ervile, and Lentils, do ſpread forth in branches. And ſome
of them runne ſo low, that they creepe along the ground, unleſſe they be borne up and ſuppor-
ted with ſome props, as for example, Peaſe: which helpe, if they miſſe, they proue the worſe for
it. Of all manner of pulſe, the Beane alone and Lupine beare but one ſingle ſtalke a peece: the
reſt do branch into very ſmall ſprigs or tendrels. Howbeit none of them, but their ſtalke or ſtraw
is fiſtulous and hollow, in manner of reedes. Some pulſe put out leaves preſently from the roote:
others againe from the top or head only: Wheate and Barley both the one and the other: and
what corne ſoever ſtandeth upon a ſtalke, beareth one leafe in the head or top thereof. But the
leaves of Barley are rough, whereas in other corne they be ſmooth. Contrariwiſe, Beanes, Chi- M
ches and Peaſe, have many leaves. In Spiked corne, the leafe reſembleth that which groweth to
reedes: in Beanes they be round, and ſo likewiſe in the moſt kinds of pulſe. Howbeit, in Peaſe and
Ervile we ſee they be ſomewhat longer. The leaves of Faſels or Kidney beanes are ribbed and full
of veines: of Seſama and *Irio, they be red and reſemble bloud. The Lupines onely and the

* i. Turkiſh corne.

Poppies

Poppies doe ſhed their leaves. All pulſe is long in the bloome, and namely, Ervile and the Cich peaſe: but Beanes continue longeſt, even for the ſpace of fortie daies togither. Howbeit, every ſingle ſtalke beareth not bloume ſo long: but thus it is, as one hath done and given over, another beginneth afreſh. Neither bloumeth the whole field all at once, as ſpiked corne doth. Alſo, all kinds of Pulſe doe cod at ſundrie times, and not upon the ſame day: beginning firſt at the bottome, and ſo likewiſe the flower riſeth up higher by little and little. All corne growing in ſpike or eare, ſo ſoone as it hath done blouming, waxeth big and ſtrong, and commeth to the maturitie within fortie daies at the fartheſt, ſo doe Beanes alſo: but the cich peaſe receiveth her full perfection in very few daies: for from the time that it was firſt ſowed, it groweth to bee ripe in fortie daies. Myllet, Panicke, Seſame, and all Summer corne, have their full ripeneſſe fortie daies after their blouming. But herein there is great diverſitie, according to the clime and the ſoile: in which reſpects corne ripeneth ſooner or later. For in Ægypt, Barly is readie to be reaped in the ſixt month after it was ſowed, and Wheat in the ſeventh: but in the region of Hellas in Greece, the Barley tarieth ſeven months; & in Peloponneſus or Morea, eight. As for Wheat and ſuch like hard corne, longer it is ere it be ripe and ready for the ſycle. All corne that groweth aloft upon a ſtalke or ſtraw, beareth the graines arraunged ſpike-wiſe, and as if they were plaited and braided like a border of haire. In Beane ſtalkes, and other ſuch like Pulſe, the cods grow in alternative courſe, ſome on the right ſide, others on the left, in order. Wheat & ſuch like ſpiked corne, withſtand the Winter cold better than Pulſe: but theſe yeeld a ſtronger food, and fill the bellie ſooner. Wheat, Rie, and ſuch like graine, are well lapped within many tunicles. Barley for the moſt part lieth bare and naked: ſo doth Arinca, [*i.* a kind of Rice or Amel-corne] and Oats eſpecially. The ſtraw of Wheat and Rie is commonly taller than that of Barley. But the eiles of Barley are more rough and prickie than thoſe of the other. Pol-Wheat, both red and white, yea, and Barley alſo is threſhed and driven out of the huske upon a floore; and being thus threſhed clean and pure, it is either ground or ſowne againe, without any parching or drying in a furnace. Contrariwiſe, the Beare corne or bearded Wheat, Far, Millet, and Panicke, cannot poſſibly be made cleane, unleſſe they be firſt ſendged and ſo dried. Theſe ſorts of graine therefore uſe to bee ſowed raw and rude with their very huls: like as the Beare corne or bearded Far, men are wont to keepe ſtill encloſed within the huske againſt ſeed time, and never parch or drie it at the fire. Of all the ſorts of graine before rehearſed, Barley is the lighteſt; for a Modius or pecke thereof ſeldome weigheth above fifteene pounds: whereas the like meaſure of Beanes poiſeth two and twentie. The bearded corne Far is yet more ponderous than it: and Wheat more than all the reſt. In Ægypt they uſe to make certain fourmentie meat or naked groats of a kind of Rice or white Amel-corne, called Olyra; which is among them holden for the third ſort of Spike corne. In Gaule likewiſe they have a kind of fourmentie corn or gurts by themſelves, named in their language Brance; and with us in Italie and about Rome, Sandalum: this graine is of all others moſt neat and faire, and this ſingular propertie it hath beſides different from the reſt, That ordinarily in every meaſure called Modius, it yeeldeth more bread by foure pound weight, than any other corne husked and dreſſed in manner aforeſaid. *Verrius* reporteth, That the people of Rome for three hundred years together, uſed no other food than the groats made of common Wheat. And as touching Wheat, there be many ſorts thereof, diſtinguiſhed by the names of the regions and countries where they be found growing. Howbeit, for my part I thinke verily, that there is no Wheat in the world comparable to ours here in Italie, for it ſurpaſſeth all others both in whiteneſſe and alſo in weight: by which two markes eſpecially, as it is knowne from the reſt, ſo it is reputed for the verie beſt. And yet if you take the Wheat growing in the mountaine countries of Italie, the beſt haply of forraine regions may match it, and that is the Wheat of Bœotia; the principall of all others, next to it, is that which groweth in Sicilie; and then that of Affricke may bee raunged in the laſt place: in a third ranke is to be reckoned the Thracian and Syrian Wheat; and after them the Ægyptian, in regard of their weight that it carieth. Now theſe degrees of weight wee gather by the proportion aſſigned to champions and wreſtlars, whoſe allowance was much like to the liurie given to labouring horſes, and as much in manner would their paunches both require and receive: for according as they could eat of the one ſort more meaſures than of the other, *ſo aroſe theſe diſtinct degrees in the weight aboveſaid. The Greekes make great account of the Wheat growing by Pontus, and highly commend it: but this never came into Italie, neither know wee what it is. The ſame Grecians preferred before all other graine, theſe three ſorts, to wit, Dracontias,

* For whereas of the Athenian Wheat, five demie ſextars, (*i.* two quarts and a halfe) were but ſufficient; three would ſerve and content them of the Bæotian, *i.* a quart and a halfe: whereby it was collected howmuch weightier this was than that.

tias, Strangias, and Selinuſium; eſteeming the goodneſſe of the corne by the thickneſſe and bigneſſe of the ſtraw, and attributing theſe three kinds by that ſigne and argument, to the goodneſſe and riches of the ſoile: and therefore they preſcribed to ſow this corne in a fat and battle ground. But the lighteſt in weight & pooreſt in ſubſtance, becauſe it required much nutriment, they appointed to be ſowed in moiſt places. Of this opinion and judgement were the auncient Greekes, during the reigne of *Alexander* the Great, at what time as Greece was in the flowre and heigth of her glorie, as having the monarchie and ſoveraigntie over the whole world. Howbeit, before his death 145 yeares or thereabout, *Sophocles* the Poet in a Tragœdie entituled Triptolemus, praiſed the Italian wheat above all other; for in effect thus he ſaith word for word:

Et fortunatam Italiam frumento canére candido.

And Italie, a land (I ſay) ſo happie and ſo bleſt,
Where ſtand the fields all hoare and gray, with white wheat of the beſt.

And in very truth, our Italian wheat at this day carrieth the name alone in that regard. I wonder therefore ſo much the more at the moderne Greekes of late time, who made no mention at all of this our wheat. Now at this preſent, of all thoſe kinds of outlandiſh wheat which are tranſported by ſea into Italy, the lighteſt is that which commeth out of Fraunce, and Cherſoneſus, [*i.* the ſtreights of Callipolis] for a Modius or pecke therof conteineth not above twentie pound weight, weigh the very graine it ſelfe as it groweth uncleanſed, huske & all. The Sardinian wheat is more weightie than it by halfe a pound in a Modius. And that of Alexandria exceedeth the French, halfe a pound and * one third part, in every meaſure before-named. And this is the very poiſe alſo of the Sicilian wheat. The Bœotian is yet a full pound heavier: and that of Africk as much and * three fourth parts of a pound more. In Lombardie, and that tract of Italy beyond the river Po, I know full well that a Modius of their wheat weighed 25 pounds; and about Cluſium, ſix and twentie. But be the corne whatſoever it will, this is the ordinarie proportion by the courſe of Nature, That being made into downright houſhold bread for ſouldiers and to ſerve the campe, it ought to weigh as much as it did in corn, & one third part over and above. As alſo this is a rule, That the beſt wheat is that, which to every Modius will take and drinke up a gallon of water, ere it be made dough. And yet ſome kinds of wheat there be, that will yeeld the full weight aforeſaid in bread, and never count the water going thereto, and namely that which commeth out of the Balear Iſlands; for a Modius of that wheat yeeldeth in bread 30 pound weight: yet otherwhiles it falleth out in ſome kinds of wheat (being blended two ſorts togither, as namely that of Cyprus and Alexandria, wherof neither exceed little or nothing more than 20 pound weight to the Modius) that the bread made therof will ariſe to the ordinarie proportion: for the Cyprian wheat is not bright, but brown and duskiſh, and therfore maketh a black kind of bread; in which regard the Alexandrian wheat, which is faire and white, is mixed with it: and ſo both togither doe yeeld in bread 25 pound weight. The wheat of Thebes addeth a ſurpluſage thereto of one pound.

* *i.* 4 ounces.

* *i.* 9 ounces.

As for the manner of working and kneading dough, I like not their faſhions who take ſea-water for that purpoſe; as moſt doe that inhabit the ſea coaſts, thinking thereby to ſave the charges of ſalt; for I hold this very hurtfull and daungerous: neither do I thinke, that upon any other cauſe, mens bodies are made more ſubject to maladies, than by this meanes. In Fraunce and Spaine, when the Bruers have ſteeped their wheat or ſrument in water, and maſht it for their * drinke of divers ſorts, as heretofore hath been ſhewed; they take the * skum or froth that gathereth aloft by the working of the woort, and uſe the ſame in ſtead of leven for to make their bread; which is the reaſon that their bread is lighter and more houved up than any other.

* *Zythum & Curmi.*

* Yeſt or barm.

Moreover, there is a great difference in wheat, by reaſon of the ſtraw or ſtalke that beareth it: for the thicker that it is and more full, the better is the corne taken to be. The Thracian wheat is encloſed and well clad (as it were) with many tunicles or coats: throughly provided by that meanes (and good cauſe why) to reſiſt the exceſſive cold of that climat; which gave the Thracians juſt occaſion alſo to caſt about and deviſe to have a kind of wheat that remaineth upon the ground not above three moneths, by reaſon that the ſnow over-ſpreadeth the face of the earth all the yeare beſides: and verily this kind of corne is come into other parts of the world, and lightly within three moneths after that it is ſowed, you ſhall have it readie to bee reaped: A pra-

ctiſe

A ctise well knowne all the Alps over, and in other cold and winterly regions, where (by the report of the inhabitants) this kind of corne doth wondrous well, and none prospereth better or groweth more ranke than it. Over and besides, there is another kind of wheat that putteth up from every root one stalke and no more in any place whatsoever: the manner is to sow it in no ground but that which is light, and it never misseth. Also about the Thracian gulfe, there is wheat that within fortie daies after the sowing, will be ripe, and thereupon it is called the Two-month wheat. And would you hear a wonder? there is no wheat more weightie than it; and besides, it yeeldeth no bran at all. In Sicilie and Achaia both, there is great use thereof, and namely among the mountainers of those two countries. Much seeking also there is after that corne in the Iland Euboea, about Caystus. See how much *Columella* was deceived, who thought that there was not to
B be found so much as any kind of three-moneth wheat: whereas it is plaine, that such hath been of old and time out of mind. The Greekes also have a proper name for it, and call it Trimenon. Furthermore, it is reported, that in the countrey Bactriana, there is some corne of that bignesse, that every graine is full as much as one of the eares of ours.

But to returne againe to our Husbandrie; of all spiked corne, Barley is sowed first: but I purpose to set downe the very just time and season appropriate to ech kind, according to the severall nature of every sort, which my meaning also is to declare. Meane while I cannot omit, that there is among the Indians, barley both sowne and also wild, whereof they make the best bread that they have. As for us Italians (to say a truth) we set most store by Rice, whereof (being husked and cleansed) we make grotes, like for all the world to those which other men besides doe make of
C barley husked. The leaves verily that this graine Rice doth beare, be pulpous and fleshie, resembling Porret or Leekes, but that they be broader: the stem groweth a cubit high, the flower is of purple colour, and the root round like a jem or pearle.

Barley [husked] was the most auncient meat in old time, as may appeare by the ordinarie custome of the Atheniens (according to the testimonie of *Menander*) as also by the addition or surname given to sword-fencers, who upon their allowance or pension given them in barly, were called Hordearij, [*i.* Barley-men.] The ordinarie drie grout or meale also Polenta, which the Greekes so highly commend, was made of nothing els but of barley: and the preparing thereof was after sundrie waies. The manner that the Greekes used, was first to steepe the barley in water, and give it one nights drying; the morrow after, they parched or fried it, and then ground it in
D a mill. Others there be, who (when it is well fried and parched hard) besprinckle it once againe with a little water, and then drie it before it be ground. There are some againe, who take the ears of barley when they are green, beat and drive the corne out, and while it is fresh and new, cleanse it pure; which done, they infuse it in water, and while it is wet, bray it in a mortar: then, they wash it well in osier paniers, and so let the water run from it; and being dried in the sunne, they pound or stampe it againe; and beeing throughly husked and cleansed, grind it into meale as is aforesaid. Now when it is thus prepared one way or other, to twentie pound of this barley they put of Line seed three pound, of Coriander seed halfe a pound, of salt about * two ounces and two drams: and after they have parched them all well, they blend them togither and grind them in a querne. They that would have this meale to keepe long, put up into new earthen vessels all to-
E gither both flower and bran. But in Italie they never use to steepe or soke it in water, but presently parch it, and grind it small into a fine meale, putting thereto the former ingredients, and the graine of Miller besides.

* *Acetabulum.*

As for bread of barley, so much used of our forefathers in old time, the posteritie that lived after, found to be naught and condemned it: in such sort, as they allowed it for provender only to feed their beasts and cattaile with. But in stead thereof came up the use of * husked barley, to bee sodden for grewell; so highly commended as a most nutritive and strong meat; and withall, passing holesome for mans bodie: in so much as *Hippocrates* (who for skill and knowledge was the prince of all Physicians) hath written one whole booke in the praises onely of it. Now the best Ptisana or husked barley, is that which commeth from Vtica. As for that which we have from
F Ægypt, it is made of the flat barley which groweth upon the eare in two rankes or sides only. *Turannius* saith, That in the realms of Granade, Andalusia, and Africk, the barley whereof the said Ptisane is made, is smooth and naked in the eare without eiles or beard at all. Hee also is of opinion, that Rice and the graine Olyra, are all one. The manner of preparing husked barley and making Ptisana is so commonly knowne, that I need not to say a word thereof.

* *Ptisana.*

As

As for Tragum, it is a kind of Ptisane, made of Wheat, after the same order that the former of Barley. Howbeit, there is none of it to bee found but in Ægypt and Campaine. Touching Starch-flower called Amylum, it may be made of all kinds of wheat, and of the fine corne Siligo, *i.* Winter wheat: but the principall is that which they make of the three-month or Summer wheat. Wee are beholden to the Iſland Chios for the invention of Starch: and even at this day, the very beſt is that which commeth from thence: called it is in Greeke Amylum, becauſe it never came into the mill, nor was ground upon ſtones. The next to it in goodneſſe, is made of a certaine Summer wheat that is nothing ponderous and weightie. The way to make it, is to ſteepe the wheat within certaine cooperie veſſels made of wood, in freſh water ſo much as will cover it well. But it would not bee forgotten, that the water muſt bee chaunged five times in a day: and if it were ſo ſerved alſo in the night, it would bee the better, to the end, that beeing thus ſoaked and ſoftened, it might bee well mixed and incorporated, yea, and reſolved (as it were) into a kind of paſt, before that it become ſoure and bitter. This being done, it muſt bee laid to drie either upon linnen cloths, or elſe in twiggen paniers, that the liquor which is therein may draine away: afterwards upon tiles, beſmeared over with ſome leaven, it is poured forth to take the Sunne, to drie and harden againſt it. After the Chian Starch, that of Candie is moſt eſteemed and liked of: and laſtly, that which commeth out of Ægypt. The good Starch ought to bee light, ſmooth, and even, and withall, freſh made: for thoſe properties hath *Cato* ſet downe alreadie.

To returne againe unto our Barley: the meale thereof is of great uſe here with us in Phyſicke. And that which more is, a ſtraunge effect it worketh in Horſes, Aſſes, and ſuch like labouring beaſts: for take Barley when it is dried and hardened at the fire, grind it to meale, reduce it into a paſte, and make thereof gobbets: let theſe bee put downe by a mans hand into their bellie, after the manner of cramming Pullen, and you ſhall ſoone ſee, that this food and manner of feeding, ſhall make the beaſts more ſtrong and luſtie, and their fleſh more faſt and compact.

As for Barley eares, ſome there bee which have but two rankes or rewes: others againe have more, even to the number of ſixe. In the verie graine alſo there is much difference: for there bee many of them longer than other, lighter, ſhorter, rounder, whiter, blacker, and laſt of all, enclining to a reddiſh or purple colour. This is the worſt of all others for to make drie Grout or Polenta: and as for the white, it is beſt for that purpoſe, but will not abide any tempeſtuous or hard weather. And to ſay a truth, of all corne, Barley is the ſofteſt and tendereſt, and will leaſt endure any hardneſſe: It would not bee ſowed, but in a drie and fine ground, laid light, and brought into temper: howbeit, good it muſt bee, and well in heart. The chaffe and pugs that come of Barley, is ſuppoſed to bee as good as the beſt: but for ſtraw it hath no fellow, eſpecially to make litter of. Moreover, in this regard, Barley of all other graine, is leaſt ſubject unto blaſting, for lightly it is cut downe before that Wheat is mieldewed. And therefore it is, That the wiſer ſort of Husbandmen in the countrey, ſow no more Wheat than will ſerve for the proviſion of their houſe onely. Furthermore, they ſay, that Barley is ſowed with the rake, namely, when the mould lightly covereth it: and therefore it commeth up ſooneſt, and bringeth moſt encreaſe and plentie. That which is gathered at Carthage in Spaine, within the moneth of Aprill, is ſowed the verie ſame moneth in Celtiberia, ſo as in one yeare it yeeldeth two crops. It is no ſooner ripe, but they make greater haſt to cut it downe, and to inne it, than any other corne: for the ſtraw is verie brittle, and the huske which containeth the graine is as thin and ſmall. To conclude, it is thought to yeeld the better groats if it be taken whiles it is ſomewhat greene, rather than if it ſhould have the full ripeneſſe.

Chap. VIII.

That all kinds of Wheat or Fourmentie corne grow not indifferently in everie place. Alſo, of other ſorts of corne in the Levant or Eaſt countries.

YOu ſhall not find in all places the ſame kinds of Wheat: and where you meet with the very ſame, yet they beare not one name, but have ſundrie appellations. The red bearded wheat named in Latine Far, and which in old time they called Adoreum; the winter wheat Siligo, and the

the ordinarie white Fourmentie wheat Triticum, are the commoneſt of all others. And indeed theſe grow all in moſt countries. As for Arinca, it loveth Gaule beſt, and that is the native and proper countrey for it: howbeit, there is plentie thereof in Italie alſo. As for Zea, Olyra, and Typhe, they be ſundrie ſorts of Wheat and Rie peculiar and appropriate to Ægypt, Syria, Cilicia, Aſia, and Greece. The Ægyptians make of their Wheat a kind of flower or ſifted meale, but nothing comparable to the Italian. They that uſe Zea or Spelt, have not the fine red wheat Far. And yet we are ſtored therewith in Italie, and moſt of all in Campaine, where it is called by the general name of Seed. Which name no doubt was given unto it for excellencie and ſingularitie, as ſhall be ſhewed anone more at large. This is the very graine for which *Homer* the Poet called the earth ζείδωρος ἄρουρα, *i.* yeelding the corne Zea: and not becauſe ſhee giveth life to all living creatures, as ſome would have to bee meant by that Epithete. Thereof is made alſo a kind of ſtarch, but groſſer than the former, whereof we ſpake before: for no difference is there elſe. Of all kinds of wheat, Far (which is taken for the red, bearded wheat) is moſt hardie & beſt reſiſteth winter cold: it will well abide the coldeſt ſoile that is, and that which is leaſt laboured and tilled: it may endure alſo hote and drie places: it yeelded the firſt food and meat to our auncient forefathers in Latium; as may appeare by this good argument, that publicke preſents and rewards by way of remuneration were given of Far, which they called Adorea, as hath bin ſaid before. Moreover, that the Romanes for a long time lived of a kind of batter or gruell made of meale ſodden, and not of bread, is very evident by old records and Chronicles: for even at this day ſuch thicke gruels or pottage be called Pulmentaria in Latine. And *Ennius*, a moſt auncient Poet, when he would expreſſe the famin of a citie that had endured long ſiege, reporteth, That the parents tooke by force from their children their ſops, notwithſtanding they cried pitteouſly for verie hunger. Moreover, even in our time wherein we live, the ſacred and ceremonious feaſts which we obſerve in memoriall of our Birth daies and Nativitie, ſtandeth much upon Furmentie, Gruell, Fritters, and Pancakes. It ſeemeth alſo, that our gruels and ſuch like pottage were as much unknowne to Greekes, as their Polenta or dried groa̅s were ſtrange to us here in Italie. There is no corne more hungrie and greedie of nouriſhment, than Seed [Wheat;] or that draweth more vertue & fat out of the earth for nutriment. As touching the winter graine, called in Latine Siligo, I may be bold to ſay, it is the daintieſt and moſt delicate wheat that is, for whiteneſſe, mildneſſe, and lightneſſe. It agreeth well with moiſt countries, ſuch as Italie is, & that part of Gaule called Comata, *i.* Lum-
D bardie. Beyond the Alpes alſo in Savoy onely, and the territorie of the Meninians, it will endure and hold the owne very well: marie, in other parts of that countrey, within two yeares it turneth into the common wheat. The onely remedie therefore, is to chuſe foorth the heavieſt and weightieſt cornes, and them to ſow.

Chap. IX.

Of Paſtrie, of Grinding, and of Meale.

THe beſt manchet bread for to ſerve the table, is made of the winter white wheat Siligo: and the moſt excellent workes of paſtrie likewiſe are wrought thereof. And yet in Italie, it paſ-
E ſeth all the reſt in caſe that of Campaine bee blended with another ſort which groweth about Piſæ: for the wheat of Campaine is redder, but this of Piſæ whiter: and more weightie it is, if it come from a chalkie ground, or have chalke mingled among. Moreover, this is the ordinarie proportion, that of the very pure corne of Campaine wheat, which they call guelded, *i.* wel husked & cleanſed, a meaſure named Modius ſhould yeeld foure ſextars or quarts of fine meale: but of the vulgar and common graine, which is not ſo guelded, five ſextares, and halfe a Modius beſides of boulted flower: and for a courſer houſhold bread, which they call the ſecond bread, foure ſextars of meale, and as many of brans. Alſo of the Piſane wheat, one Modius ſhould yeeld five ſextars of good meale, and the reſt equall to the former. As for the Cluſine and Aretine wheat, in every Modius it anſwereth againe ſixe ſextars of meale, that is to ſay, one more than the
F reſt: otherwiſe they bee all alike. Now if you liſt to raunge and boult it for corke flower to make bread, yee ſhall have of manchet ſixteene pound, of courſe houſhold bread three, & halfe a Modius of brans. But this proportion doth not alwaies hold, for it altereth according to the good or bad grinding upon the mill. For that which is ground drie, rendereth againe more meale: but if it be wet or beſprinckled with ſalt water, it maketh the fairer meale, and fuller of fine flower: and

then

then ſhall yee have more goe away in brans. As for the word Farina in Latine, *i.* Meale, it is deriued of Far, which in old time was the beſt and fineſt red wheat, as may appeare by the very name that it carieth. Finally, a Modius of meale comming of the French Siligo, called Blancheen or Ble-blanch, maketh in bread two and twentie pound weight: but of our Italian, three or foure pound more in bread pan-baked: for what corne ſoever it bee, there muſt bee allowance of two pound vantage over and above, for oven-baked bread.

Chap. X.

Of the meale called Similago: of the white flower Siligo. Of other ſorts of meale: and of the manner of baking.

THe beſt meale of that kind, which they call in Latine Similago, is made of the common wheat. If the corne come out of Affricke, it yeeldeth ordinarily for every Modius, halfe ſo much in ordinarie meale, and five ſextares beſides of flower called Pollen. [For that is the Latine tearme which they uſe in the fineſt of the common wheat Triticum, proportionable to that which in the other winter wheat, Siligo they call Flos. And great uſe hereof there is in coppersmiths forges, and in worke-houſes where paper is made.] Over and beſides, of courſer grodgeons for browne bread foure ſextars, and as much of brans. Moreover, the ordinarie proportion goeth thus, that of one Modius of the fine meale Similago, there ſhould bee made 122 loves of bread: and that a Modius of the pure flower of Siligo, ſhould yeeld 117. As touching the price, thus it goeth commonly in the market one year with another, when corne is at a reaſonable and indifferent rate: A Modius of downe right meale is worth *40 Aſſes: but if the meale bee ſifted and raunged from the groſſe brans untill it be Similago, it will coſt eight Aſſes more: and if it be boulted yet finer to the nature of the fine flower Siligo, the over-deale in the price will bee double. Another diſtinction or difference there was knowne of this proportion, when a Modius comming of wheat of Similago, was ſeene to anſwer 17 pound in bread: and as much of wheat flower called Pollen, 30 pound and foure ounces: beſides, for ſecond houſhold bread, two pound and a halfe; and of the courſeſt or browneſt, as many, and ſixe Sextars over and above of brannes.

*i. 2ſh. 6d.

But to returne to our winter white wheat called Siligo, it never ripeneth kindly and all togither, as other corne doth: and for that it is ſo tender and tickliſh, as that no corne will leſſe abide delay and tarie on worſe, great heed muſt be taken thereof; for ſo ſoone as any is ripe, preſently the ſeed ſheddeth and falleth out of the eare. Howbeit, leſſe daunger is it ſubject unto whiles it ſtandeth in the field, than other kinds of wheat, for it beareth alwaies an upright ſpike or eare: neither will it hold and retaine that mildew, which blaſteth corne ſo much, and turneth it into blacke powder. As for that kind of corne which they call Arinca, it maketh the ſweeteſt bread: the graine it ſelfe is more faſt and full than the fine red wheat Far: it carieth a bigger eare, and is beſides more ponderous and weightie. Seldome is it ſeene, that a Modius of this graine maketh full ſixteen pounds. In Greece they have much adoe with it, to threſh it cleane and falter it from the hulls and eales. For which cauſe *Homer* ſaith, That they were wont to give it as provender to horſes, and ſuch labouring garrons: and the very ſame it is which he calleth Olyra. Howbeit this corne in Ægypt goeth out eaſily under the flaile, is better to grind, and withall yeeldeth better, and is more fruitfull. The red wheat called Far, is polled wheat [in Ægypt] and carieth no beard or eales about it. So is the white winter wheat Siligo, ſave only that which is named Laconica. To theſe may be adjoyned other kinds alſo, to wit, *Bromos, the poll wheat Siligo, (differing from all the other of that name) and Tragos: ſtraungers all, brought from the Levant or Eaſt parts, and reſembling Rice every one. Typhe likewiſe is of the ſame kind, whereof in Italy and this part of the world, is made that husksd corne which goeth among us for Rice, for it turneth into it. The Greekes have a kind of wheat called Zea or Spelt: and it is commonly ſaid, that both it and Typhæ (conſidering that they uſe to degenerate and proove baſtard) will turne to their kind againe and become wheat, if they be husked before a man ſow them: howbeit this chaunge will not be ſeene preſently, nor before the third yeere. As touching our commmon wheat, there is no graine more fruitfull than it: this gift hath Nature endued it withall, becauſe ſhee meant thereby to nouriſh mankind moſt; for one Modius therof ſowne, if the ſoile be good and agreeable thereto (ſuch as lyeth about Bizacium, the champian countrey of Affricke) wild yeeld an hundred

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*Some take it for a kind of Barley, or rather Otes.

hundred and fiftie fold againe. The Procurator generall of that province under *Auguſtus Cæſar*, ſent from thence unto him one plant thereof (a wondrous thing and incredible to be reported) which had little under 400 ſtrawes ſpringing from one graine, & meeting all in one and the ſame root: as it appeareth upon records by the letters ſent, teſtifying no leſſe. Likewiſe to the Emperour *Nero* he ſent 340 ſtrawes out of the ſame countrey, riſing all from one onely corne. But to goe no farther than to Sicilie; within the territorie about Leontium, there have been certaine fields knowne, wherein one graine putteth forth no fewer than a hundred ſtalkes with eares upon them: and not there onely, but alſo in many other parts of that Iſland. And this is ordinarie throughout all the kingdome of Granade, and Andaluſia in Spaine. But above all, the land of Ægypt may make boaſt in rendring ſuch intereſt to the husbandmen. Moreover, of all thoſe kinds of wheat which are ſo plentifull, there is principall account made of that which braunCheth; as alſo of another which men call Centegranum, *i.* the wheat that beareth 100 graines.

To leave this kind of graine, and to come to Pulſe: there hath been found in Italie, and goe no farther, one beane ſtalke laden with an hundred beanes. Touching Summer corne, to wit, Seſama, Millet, and Panicke, we have alreadie ſpoken. As for Seſama, it commeth from the Indians, whereof they make a certaine kind of oile. The colour of this graine is white. Like unto it there is another grain called Eryſinum, which is rife in Aſia and Greece: and I would ſay it were the very ſame, that with us in Latine is named Irio, but that it is more oleous and fattie; and indeed to be counted a medicinable or Phyſicall plant, rather than a kind of corne. Of the ſame nature, is that which the Greekes call Hormium: it reſembleth Cumin, and is uſually ſowed with Seſama: howbeit no beaſt will eat thereof while it is greene, no more than they doe of Irio aforeſaid.

To come now to the manner of huſking and cleanſing of corn: the feat is not ſo eaſily done in all, as in ſome; for in Tuſcane, they take the eares of their red wheat called Far, when they be parched and dried at the fire, they pound or bray them with a peſtill headed at the nether end with yron, or elſe fiſtulous and hollow within, yet bound about with a hoope or ring of yron, and the ſame withinforth toothed in manner of a ſtarre; ſo as if they be not heedfull in the ſtamping, the yron-worke at the peſtill end will either cut the cornes in twaine, or els bruſe and break them cleane. In Italie (for the moſt part) they uſe a rude or plain peſtill, not headed with yron, to huske and dreſſe their corne; or els certaine wheels that are turned and driven apace with water, which going very ſwift doe alſo grind the ſaid corne. But ſince wee are falne into this treatiſe concerning huſking and grinding of corne, it ſhall not be amiſſe for to ſet downe the opinion and reſolution of *Mago* in this behalfe: Firſt, for common wheat he giveth order, that it be well ſteeped and ſoked in good ſtore of water; afterwards, to be rid from the hulls and eiles that it hath, in a mortar: which done, it ought to be dried in the ſunne, and followed a ſecond time with a peſtill. In like manner (ſaith he) ſhould barley be uſed: howbeit, two Sextars or quarts of water will be ſufficient to beſprinkle and wet twentie Sextars of barley. As for Lentils, hee would have them firſt parched and dried, and then lightly punned or ſtamped togither with brans: or els to put unto twentie Sextars thereof, a fragment or peece of a broken ſemeld brick, and halfe a Modius or pecke of ſand. Ervile would be clenſed or huſked as Lentils be: but Seſama, after it hath been infuſed or ſoked in hote water, hee ſaith, ought to bee laid abroad a ſunning; then to be rubbed hard togither; afterwards to be put into cold water and therewith covered, ſo as the hulls or chaffs doe flote and ſwim aloft: which done, to be laid forth a ſecond time in the ſunne upon linnen clothes, for to drie. Now if all this be not done one thing after another and diſpatched with the more ſpeed and haſt, it will ſoone vinew or catch a mouldineſſe, and beſides looſe the bright native hew, and looke wan and of a leaden colour. Now, ſay that corne be cleanſed and huſked, ſome one way and ſome another, it is ground afterwards in divers ſorts. If the eares be bolted by themſelves alone for goldſmiths worke, the chaffe comming thereof is called in Latine, Acus; but if it be threſhed and beaten upon a paved floore, eare, ſtraw, and all together (as in moſt parts of the world they uſe to doe, for to fodder cattaile or give in proyender to horſes) then it is tearmed Palea: but the refuſe or chaffe remaining after that Panicke or Seſama bee cleanſed, they call in Latine Appluda, howſoever in other countries it be otherwiſe named.

To ſpeake more particularly of Millet, there is great ſtore thereof in Campaine, and there they ſet much by it; for of it they make a kind of white gruell or potage: alſo the bread thereof is paſſing ſavorie and ſweet. The Tartarians alſo and nations in Sarmatia, feed moſt of this water

gruell made with Millet: as alſo with the crude and raw meale thereof unſodden and unbaked, tempered with mares milke, or els with horſe-bloud that runneth out of their maſter leg-vaines, by way of inciſion made for the purpoſe with the phleame. As for the Æthiopians, they know no other corne but Millet and Barley. Panicke is eaten in ſome parts of Gaule, and principally in Aquitane or Guien: in Piemont alſo, and all about the Po, it is a great feeding, ſo there bee beanes among; for without beanes they cannot skill how to dreſſe any thing for their daily food. The regions that confine upon the Euxine ſea or Pontus, have no daintier meat than that which is made of Panick. To conclude, all Summer corne abovenamed, delight more to grow in moiſt and watery grounds, than to bee wet with ſhowres and raine from above. And yet I muſt needs ſay, that Millet and Panicke care leaſt for warer or moiſture, when they begin to put forth their blade. Laſt of all, there is no good husbandman but will forbid to ſow Millet and Panicke either in vineyards, or among trees that beare fruit; being perſuaded, that the ſowing thereof doth eat out the heart of the ground.

Chap. xi.

Of Levains: the manner of making bread: ſundrie kinds of bread: about what time Bakers were firſt knowne at Rome: of Sieves and Serces, of Raungers and Bulters. Laſt of all, of the Frumentie called Alica.

THe meale of Millet is ſingular good for Levaines, if it be wrought and incorporate in new wine, for ſo it may be kept a whole yeare. The like is made of the better brans of wheat, ſo they be ſmall, fat, and not too near raunged; and the ſame be kneaded in new white wine of three daies old, and then dried in the ſunne. Hereof is made a dough or paſt, and the ſame is reduced into certaine round cakes or Troſches to ſerve for the making of bread; for theſe muſt be ſoked and diſſolved in hote water with the floure of the corne Zea, and therein be ſodden: which done, they uſe to mingle it with the meale and floure to make paſt of, which they hold to be the beſt way of making bread. The Greeks have ſet downe this proportion, allowing to every peck or Modius of meale, eight ounces of levain; and this they thinke to be ſufficient. Now theſe kinds of levains verily cannot be made, but only in time of vintage. But if a man would make levains at any other time, he may take of barly meale tempered with water ſo much as it may be brought into a paſt; and when there be certain lumps or cakes hereof made, weighing two pound apeece, they muſt be baked either upon the hearth under hot embres, or els in an earthen pan over the coles, untill ſuch time as they looke browne and red withall. Afterwards they be put up cloſe covered in pots or ſuch like veſſels, and there remain untill they wax ſower. Now when a man would uſe levain, hereof he taketh what he will, and diſſolveth it as is before ſaid. In old time when they made barley bread, they uſed no other levaine for it but only the meale of Ervile or Cich peaſe; and ordinarie it was, to take two pound thereof for * two pecks and an halfe of meale: but now adaies the order of our huswives is, to make levains of the very ſame meale which is kneaded and wrought into dough, before ſalt be put thereto, which they ſeeth to the conſiſtence of a pulpe or thicke batter, and ſo let it lie untill it become ſowre. And yet commonly they doe not boile their levains, but only reſerve ſome of the paſt or dough, whereof they make their bread the day before. As touching the nature of Levain, certein it is that it proceeded of ſoureneſſe; like as it is generally held, that they be ſtronger of bodie who feed of levained bread: for in old time it was verily thought, that of the weightieſt and heavieſt kind of wheat, there was made the holeſomeſt bread.

* *quinque ſemodios.*

Concerning the ſundrie ſorts of bread that is made, it ſeemeth a needleſſe peece of worke to ſet them downe every one in particular: for ſometimes bread taketh the name of the meats and viands that be eaten therwith: as for example, Oiſter-bread, ſo called for that it was good with oiſters: otherwhiles it beareth the name of ſome daintie cates, as Artolaganus, [*i.* pancake, fritter, or fine cake-bread.] As for the bread called Speuſticus, [*i.* Haſtie] it is ſo called, becauſe it was made in haſt. The manner alſo of the baking, giveth denomination to ſome bread; as to Furnaceus panis, which was made in a furnace; to Artoptitius, made in a baking-pan called Artopta: as alſo to that which was baked in an oven. Not long ſince alſo there was a new device of making bread brought out of Parthia, which becauſe the paſt is drawne through water (and yet a ſpungious, light, and hollow ſubſtance it carrieth) they call water bread; and ſome give it the denomination

A nation of Parthicke bread. But howſoever it be, the beſt bread is of the fineſt wheat floure, which hath paſſed through a ſmall tamis bulter. Some countries there be, that knead their dough with milke or egs; others alſo put butter thereto: but thoſe bee ſuch nations as are not troubled with wars, ſince that they can have while to ſet their minds on ſundrie ſorts of paſtrie. The Picenes in times paſt invented a way by themſelves of making bread, with the very matter or ſubſtance of the frumentie Alica; and ſurely that deviſe holdeth ſtill and is much uſed. The manner thereof is this: They take the ſaid frumentie paſt and ſteepe it in water nine daies; on the tenth day they worke or knead it with the juice of Raiſons, to the faſhion of a Parthicke cake driven thin and broad; after this they put it in earthen pots, ſet them in ovens for to frie and bake, that the ſaid pots may there breake in ſunder: and being thus hard baked, it is not to be eaten unleſſe it be ſo-
B ked in ſome liquor, which ordinarily is milke, or mead eſpecially.

There were no Bakers knowne at Rome for the ſace of 580 yeares after the foundation of the citie, untill the Perſian warre. Before that time every Romane citizen had his owne bread baked at home; and womens worke commonly it was, like as at this day it is in moſt countries: for this appeareth by *Plautus*, who in his Comœdie entituled Aulularia, maketh mention of *Artopta; a baking-pan [which men have uſually in their houſes:] and hereupon is growne much diſpute and controverſie betweene learned men about this Queſtion, Whether that verſe were of that Poets making or no? for certein it is (according to the opinion of *A. Atteius Capito*) that at ſuch mens bourds as kept great houſes and delicate fare, there was no other bread eaten but ſuch as Cookes were wont to make them, after the manner of ſimnels: for Piſtores were thoſe only then
C called, who husked and cleanſed the bearded red wheat named in Latine Far; and other Bakers than they, were there none. Neither had the Romane citizens in ordinarie, any Cookes as their houſhold ſervants, but hired them out of the market whenſoever they had any meat to dreſſe.

* *Ego hanc Artoptam ex proximo utendam puto.*

Divers ſorts of ſieves and bulters there be. The Sarce made of horſe haire, was a deviſe of the Frenchmen: the tamis raunger for courſe bread, as alſo the fine floure bulter for manchet, (made both of linnen cloth) the Spaniards invented. In Ægypt they made them of papyr reed and ruſhes. But now that wee are entred ſo far into this matter as touching corne, I thinke it not amiſſe before I proceed any farther, to ſpeak (with the firſt) of the frumentie called Alica, and the manner thereof, being (as it is) ſo excellent and holeſome to be eaten; and which, no doubt, tho-
D roughout all Italy, beareth the name for the very beſt of all corne whatſoever. No queſtion, but there is made thereof in Ægypt; howbeit nothing to the other. In Italy, many places there bee where it is to be had, as namely in the territories of Verona and Piſæ: but that of Campaine carieth the price and praiſe above all the reſt: a champion or plaine countrey this is, for the ſpace of fortie miles lying as a vale under the hills and mountaines, ſubject to watery clowds and tempeſtuous winds. The ſoile of this whole tract (to ſpeake directly of the nature thereof and defer no longer) is light and duſtie, if a man reſpect the upper coat thereof, but underneath it drinketh in much moiſture, whereunto apt it is by reaſon of certain fiſtulous poroſities therein, like a pumiſh ſtone: in which regard, the mountains commaunding theſe plaines (ill neighbours otherwhiles) doe it much good and mend the ſoile very well; for many a ſound ſhowre (which ordinarie falleth from the hills) paſſeth and runneth through it, as it were a colander; by means where-
E of, the ground ſtandeth not drenched and ſoked with water, but is thereby more pliable & eaſie to be tilled. Now this ſoile having thus received ſtore of water, doth not yeeld it up againe boiling out at any ſprings, but keepeth and cheriſheth it ſtill within, as it were the radicall and nutritive humour, concocting the ſame to a very good temperature. All the yeere long a man ſhall ſee it ſown and ſtanding with corn, one or other; for the ſame ground beareth one crop of Panick, and two of the red wheat Far: it never reſteth but beareth ſomewhat: for ſay that ſome lands lye fallow between-while, and are not ſowed with corne; they yeeld roſes in the ſpring of themſelves naturally, and thoſe far ſweeter than the garden roſes: ſo fruitfull is it and cannot abide to be idle and do nothing. Hereupon aroſe the proverb of this land of Campaine, *That greater ſtore is there to be found of ſweet perfumes and odoriferous ointments, than of ſimple oyle in other countries whatſoe-*
F *ver.* And looke how much this tract of Campain ſurpaſſeth all other lands in goodneſſe and fertilitie, ſo much excelleth one quarter thereof (called in Latine Laboriæ, and by the Greeks Phlegræum) all the reſt, and goeth beyond it ſelfe. This plaine aforeſaid named Laboriæ, is confined on both ſides with the great cauſies or high waies raiſed by the Conſuls, and thereupon called Conſulares; the one goeth from Puteoli, the other from Cumes, and lead both to Capua.

But to come againe unto our Frumentie Alica, made it is of the graine Zea, which before wee tearmed by the generall name of Seed. This corne for to make Frumentie, is to bee pound in a wodden morter, when it ſhould be cleanſed from the huske: for if a man beat it in one of ſtone, the hardneſſe thereof would bruſe and breake it. The beſt way of cleanſing and husking it, is with a peſtill, ſuch as bondſlaves and priſoners do uſe to ſtampe withall, and to worke by taske for their puniſhment: in the forepart thereof it hath a circle of yron, made in faſhion of a round Boxe: wherewith after the corne is drawne naked out of the huske, the very ſame inſtrument ſerveth againe to ſtampe and bruſe the white marrow and flower thereof within. And thus by this meanes there be three ſorts made of Alica or Frumentie aforeſaid. The fineſt, which is the beſt: the meane, which is the ſecond: and the greateſt or groſſeſt, which the Greekes call Aphærema. G

When all this is done, yet have they not that whiteneſſe of their owne, for which they are ſo much eſteemed; as namely, thoſe that come now adaies from Alexandria, which are taken to be the beſt and to excell all other. And therefore there is chalke (a wonderfull thing to be ſpoken) mingled afterwards and incorporate therewith, and ſo by that meanes the Frumentie becommeth white and tender withall. Now this chalke or plaſtre is found between Puteoli and Naples, in a little hill which thereupon is called Leuco-gæon, [*i.* white earth.] And in truth when *Auguſtus Cæſar*, late Emperor of Rome, erected a colonie at Capua, and peopled it with Romane cittizens, he aſſigned unto the Neapolitanes (by vertue of a decree, now extant) an yearly rent or penſion of twentie thouſand deniers to bee paied out of his owne treaſure, in regard of the chalke which came from the hill aforeſaid, being within their territorie and ſiegnorie. He rendereth alſo a reaſon inducing him thus to doe, Becauſe the inhabitants of Capua, alleadged, that they could not make good Alica or Frumentie without that minerall of chalke. In the ſame hill there is alſo found a Brimſtone mine, and out of the veines thereof, fountaines ſpringing, called Oraxi, the water whereof is ſingular good to cleare the eies, to cure and heale greene wounds, and to faſten the teeth that are looſe in ones head. H

As touching a baſtard kind of Frumentie, it is made verily for the moſt part of a Spelt or Zea in Affricke, which there doth degenerate & grow out of kind. The eares that it carieth, are broader and blacker than the other, and the ſtraw is but ſhort. They uſe to cleanſe and huske it by ſtamping or braying it together with ſand: and for all that deviſe, much adoe they have to fetch off the huls and huskes wherein the graine lieth encloſed: now when it is thus cleanſed and naked, it is not paſt halfe as much in meaſure as it was before. Which done, there is a fourth part of plaſtre ſtrewed and mingled among: and when all is together, they ſift it downe through a meale ſieve. That which remaineth behind and paſſeth not through, is the groſſeſt part thereof, and is called in Latin Exceptitia. That which was thus ſearced, is driven again through a narrower and finer ſieve, and theſe groats that tarie in the raunger, they call Secundaria. In like manner do they a third time, ſearcing it through ſo fine a ſieve, that nothing can paſſe but the very ſmall ſand and pouder: and this laſt kind of Frumentie gurts they name Cribraria. Another way there is beſides in all places practiſed, to ſophiſticate and counterfeit the right Frumentie groats indeed: They chuſe out of our common Wheat, the faireſt, fulleſt, and whiteſt graines, which being halfe ſodden in an earthen pot, they lay out afterwards in the Sunne, untill they be as drie as they were at firſt: which done, they lightly ſprinckle ſome water over, and then bruſe them in a quearne mill. Fairer Frumentie groats be made of Zea than of Wheat, and called it is Granum or Granatum, although in Alica that be counted a fault. To conclude, they that will not uſe chalke, doe blaunch and make their Frumentie white by ſeething milke with it, and mingling all together. I K

Chap. xii.

& of Pulſe.

IT followeth now to write of the nature of Pulſe, among which, Beanes doe challenge the firſt ranke and principall place: for thereof men have aſſaied to make bread. The meale of Beanes is called in Latine Lomentum. There is a not a Pulſe weigheth more than it, and Beane meale maketh every thing heavier wherein it is. Now adaies they uſe to ſell it for provender to feed horſes. And indeed Beanes are dreſſed and uſed many waies, not onely to ſerve all kind of foure-footed beaſts, but alſo for man eſpecially. For in moſt countries it is mingled with Frumentie corne: and namely with Panicke moſt of all, whole and entier as it is: but the more delicate and M

daintie

A daintie way is to breake and bruiſe it firſt. Moreover, by auncient rites and rellgious ceremonies; at the ſolemne ſacrifice called Fabaria, the manner was to offer unto certain gods and goddeſſes Beane cakes. This was taken for a ſtrong food, being eaten with a thicke grewell or pottage; howbeit, men thought that it dulled a mans ſences and underſtanding, yea, and cauſed troubleſome dreames in the night. In regard of which inconveniences, *Pythagoras* expreſſely forbad to eat Beanes: but as ſome have thought and taught, it was becauſe folke imagined, that the ſoules of ſuch as were departed, had reſidence therein: which is the reaſon alſo, that they be ordinarily uſed and eaten at the funerals and obſequies of the dead. *Varro* alſo affirmeth, That the great Prieſt or Sacrificer called the Flamine, abſtaineth from Beanes both in thoſe reſpects aforeſaid, as alſo for that there are to be ſeene in the flower thereof certaine letters or characters that ſhew heavi-
B neſſe and ſignes of death. Furthermore, there was obſerved in old time a religious ceremonie in Beanes: for when they had ſowed their grounds, their manner was, of all other corne to bring backe with them out of the field ſome Beanes, for good lucke ſake; preſaging thereby, that their corne would returne home againe unto them; and theſe Beanes thereupon were called in Latine Refrivæ, or Referivæ. Likewiſe in all port-ſales it was thought, that if Beanes were entermingled with the goods offered to be ſold, they would be luckie and gainefull to the ſeller. This is certain, that of all fruits of the earth, this onely will bee full and ſound when the Moone is croiſant, notwithſtanding it were gnawne and halfe eaten with ſome thing before. Set them over the fire in a pan with ſea water or any other that is ſaltiſh, they will never be throughly ſodden. They are ſet or ſowne before the retrait of the Starre Vergiliæ, [*i.* the Brood-hen] the firſt of all other Pulſe,
C becauſe they might take root betimes & prevent the Winter. And yet **Virgill* would have them to bee put into the ground in the Spring: like as the manner is in Piemont and Lumbardie, all about the river Po.

**Vere fabis ſatio. Georg. lib. 1.*

But the greater part of good Husbandmen are of this opinion, That the ſtalke or ſtraw of Beanes ſowne earely or ſet betimes, are better than the very fruit it ſelfe, which hath had but three moneths being in the ground. For the cods and ſtalkes onely of Beanes are paſſing good fodder and forrage for cattell. Beanes when they are blouming, and in their flower, deſire moſt of all to be refreſhed with good ſtore of raine: but after they have done flouring, they care for little. The ſowing of this Pulſe in any ground, is as good as a mucking unto it, for it enricheth it mightily. And therefore towards Macedonie and about Theſſalie, the manner is when Beanes begin to
D bloſſome, for to turne them into the ground with the plough. Beanes come up and grow in moſt places, of their own accord without ſowing; and namely, in certain Iſlands lying within the Northerne Ocean, which our countreymen thereupon have named Fabariæ. Semblably, they grow wild commonly throughout all Mauritania, but exceeding hard and tough they bee, and ſuch as poſſibly cannot be ſodden tender. There are likewiſe in Ægypt to be found Beanes, with a ſtalke beſet full of prickes or thornes: which is the cauſe that Crocodiles will not come neare them, for feare of hurting their eyes. The ſtemme of theſe Beanes is foure cubites in height, but exceeding thicke and big withall: tender it is notwithſtanding, and ſoft, running up even and ſmooth without any knots or joints at all: it carieth a head in the top like Chesboule or Poppie, of a roſe red colour: wherein are contained not above 30 Beanes at the moſt. The leaves be large: the fruit
E it ſelfe (or the Bean) is bitter in taſt, and the ſmell not pleaſant: howbeit the root is a moſt daintie meat, which the inhabitants doe eat as well raw as ſodden; and like it is to reed and cane roots. Theſe grow in Syria and Cilicia, as alſo about the lake Torone, within Chalcis.

Much like to the proverbe here in England, *March Ote-ſtraw is better than Aprill Otes.*

As touching other Pulſe, Lentils be ſowed in November, and ſo are Peaſe, but in Greece only. Lentils love a light ground better than a fat and heavie: they like alſo drie and faire weather. Two kinds thereof bee found in Ægypt: the one more round and blacke than the other; the reſt bee faſhioned as common Lentils. According to the manifold uſe and diverſe effects of Lentils, there have ſundrie names and denominations been borrowed from them: for I find in writers, that the eating of Lentils maketh men to bee mild and patient, whereupon they bee called Lenti and Lenes. As for Peaſe, it ought to be ſowed in warme places lying well upon the Sunne,
F for of all things it cannot abide the cold. Which is the cauſe, that in Italie and in other countries where the clime is rough and hard, they are not ſowne uſually but in the Spring, and folke chuſe a gentle, light, and looſe ground.

To come now to the Cich peaſe, the nature of it is to be nitrous and ſaltiſh, and therefore it burneth the ground where it groweth. Neither muſt it be ſowne, unleſſe it were well ſteeped and

ſoked in water the day before. Many ſorts there be of theſe Cich peaſe, different in bignes, form, colour, and taſt: for there are both blacke and white, and thoſe in faſhion ſhaped like to a Rams head, and thereupon they are ſo called. There is a ſecond kind named Columbinum, or by others Venerium. Theſe are white, round, light, leſſe than the former Rams-head Ciches, which men do eat ceremoniouſly with great religion, when they meane to watch throughly all night long. There is a little Cich peaſe alſo, called Cicercula, made cornered and otherwiſe uneven, like unto a Peaſe. But the beſt Ciches and moſt pleaſant are thoſe that come neareſt in reſemblance to the Ervile: and generally the red kind and the black are more firme and faſt than the white. Cich peaſe grow within round cods, whereas other Pulſe be contained in long and flat, according to the forme and figure of the ſeed which they hold: Peaſe by themſelves have a long round cod in forme of a Cylinder.

The Pulſe called Phaſeoli, [*i.* Kidney Beanes] uſe to be eaten cod and all together. Theſe may be ſet or ſowne in what ground you liſt, from the Ides of October to the Calends of November. Finally, all kinds of Pulſe, ſo ſoone as they begin to ripen, are to be gathered or plucked haſtily: for ſtay never ſo little, they leape out of their cods and ſhed, and being once fallen, they lie hidden in the ground; like as the Lupine alſo.

Chap. XIII.

Of Rapes or Navewes: of Amiternium Turneps.

NOw let us proceed and paſſe to other matters: & yet in this diſcourſe, it were meet to write ſomewhat as touching Rapes or Navewes. The Latine writers, our countreymen, have ſlightly paſſed by and touched them onely by the way. The Greekes have treated of them ſomewhat more diligently, and yet among pot herbs and woorts growing in gardens; whereas indeed according to good order they would be ſpoken off immediatly after Corne, or Beanes at leaſt wiſe, conſidering there is not a plant of more or better uſe than is the Rape or Navew. Firſt and formoſt, they grow not onely for beaſts of the earth and the Foules of the aire, but alſo for men. For all kinds of Pullen about a Farme-houſe in the countrey, doe feed upon the ſeed thereof as much as of any thing elſe, eſpecially if they bee boiled firſt in water. As for foure-footed beaſts, they eat the leaves thereof with great delight, and waxe fat therewith. Laſt of all, men alſo take as great pleaſure and delight in eating the leaves and heads of Rapes or Navewes in their ſeaſon, as they doe of young Coly-Flories, Cabbages, or any tender crops of hearbes whatſoever; yea, when they are faded, flaggie, and dead in the Barne, they are eſteemed better, than being freſh and greene. As for Rapes or Navewes, they will keepe long and laſt all Winter, both within the ground where they grew: and beeing well wintered, they will continue afterwards out of the earth lying abroad even almoſt till new come: ſo as they yeeld men great comfort to withſtand all hunger and famine. In Piemont, Lumbardie, & thoſe countries beyond the Po, the people make the moſt account of gaine by gathering Rapes, next to wine vintage and corne harveſt. It is not choiſe and daintie, of the ground where it will grow: for lightly it will proſper where nothing els can be ſowed. In foggie miſts, hard froſts, and other cold weather, it thriveth paſſing wel, & groweth to a wonderfull bigneſſe. I have ſeene one of their roots weigh above fortie pounds. As touching the handling and dreſſing of them for our table, there be many waies and deviſes to commend and ſet them out. Preſerved they may be untill new come, eſpecially condite with ſharp and biting Senvie or Muſtard ſeed. Moreover, our Cookes know how to give them ſix other colours beſides their owne which is pure and naturall; they have the caſt to ſet even a purple hew upon them. And to ſay a truth, there is no kind of viands beſides that, being thus painted & coloured, hath the like grace. The Greeke writers have devided them by the ſexe, and thereby made two principall kinds thereof, to wit, the male and the female. Nay, more than that, out of one and the ſame ſeed, according as it is ſowed, they can make male or female, whether they pleaſe. For if they ſow thicke, and chuſe thereto a hard and churliſh ground, it will prove of the male kind. Alſo, the ſmaller that the ſeed is, the better is it eſteemed. But of all Rapes male or female, three eſpeciall ſorts there be and no more. For ſome roots ſpread flat and broad, others are knit round like a ball; the third ſort which runneth downe into the ground with a long root in manner of a Raddiſh, they call the wild Rape or Navew: this beareth a rough leafe and full of angles or corners; the juice that it yeeldeth is ſharpe, hote, and biting, which being gathered in harveſt time & reſerved,

mundi-

A mundifieth the eies, and cleareth the ſight, eſpecially being tempered with breaſt-milke. If the weather be cold, they are thought not onely to thrive in bigneſſe of the root, but alſo to proove the ſweeter, whereas contrariwiſe in a warme ſeaſon they run up all to ſtalke and leaſe. The beſt ſimply are thoſe that grow in the Nurſine territorie. For they are ſold by the weight: and everie pound is worth a Romane Seſterce, yea, and otherwhiles twaine, if there be any ſcarcitie of them. Next to theſe in goodnes be thoſe that come out of Algidum. Thus much of Rapes or Navews.

As for the Turneps of Amiternum, they bee in a manner of the ſame nature that the Rapes aforeſaid, and cold they love as well. Sowne they are before the Calends of March: & four quarts of their ſeed will take up a whole acre of ground. The beſt Husbandmen, and ſuch as are more exquiſite in their practiſe of Agriculture, give order, That the ground for Turneps ſhould have
B five tilthes, whereas Rapes or Navewes are content with foure: but both the one & the other had need of a ſoile well enriched with dung or compoſt. By their ſayings alſo, Rapes will proſper the better and come up thicker, if they be ſowed in their huls, chaffe and all together. Moreover, they would have the ſeeds-man to be naked when he ſoweth them, and in ſowing to proteſt, That this which he doth is for himſelfe and his neighbours, and withal to pray as he goeth. The proper ſeaſon for the ſeednes of them both, is betweene the feaſts of the two gods, to wit, *Neptune* and *Vulcane*.

To conclude, there is a ſubtile and curious obſervation that many go by and doe hold, namely this, To marke how many daies old the Moone was, when the firſt Snow fell the Winter next before: for if a man doe ſow Rapes or Turneps, within the foreſaid compaſſe of that time, the
C Moone being ſo many daies old, they will come to be wonderous great, and encreaſe exceedingly. Men uſe to ſow them alſo in the Spring: but then they make choiſe of moiſt and hote grounds.

Chap. xiiii.

Of Lupines.

After Rapes and Turneps, the Lupines have greateſt uſe, and deſerve to be raunged next: for that they indifferently ſerve both men and alſo all foure footed beaſts that be houſed, either whole or cloven. Now for that the ſtalke is very ſhittle in mowing, and therefore flyeth from the edge of the ſyth, the onely remedie therefore (that the mower may catch it) is
D to go to worke preſently after a good ſhowre. And verily there is not a plant growing upon the earth (I meane of ſuch as are ſowne of ſeed) more admirable than the Lupine, in regard of the great amitie and ſympathie betweene the earth and it. Looke how the ſunne keepeth his courſe in our Horizon above, ſo doth it turne and goe withall; in ſo much as the husbandmen of the countrey go by no other clocke to know how the day paſſeth, in cloſe and clowdie weather, than this obſervation. Moreover, it hath three ſeaſons of blowming: it loveth the earth well, but yet willingly it would not be covered over with mould: for this is the onely ſeed that is ſowne upon ground without any ploughing or digging: it would grow to chuſe, in a moſt gravelly, drie, and ſandie ſoile; and in no caſe can it abide any tending or husbandrie about it: ſo affected is it to the earth, that caſt it upon any rough ground, among buſhes, leaves, briers and brambles, it will chit
E and ſpurt nevertheleſſe, and never lin till it take root within the earth. If Lupines be ſowed either in vineyards or upon corne lands, they enrich the ſame and make the ground better, as we have before written: and ſo little need have they of dung, that they ſtand in ſtead of the very beſt. To ſay a truth, there is no graine leſſe chargeable to bee ſowne, than it; nay there is none coſteth nought at all, but it; for it needeth not ſo much as to be brought into the field: and why? it ſoweth it ſelfe preſently in the ſame field where it grew: and ſhedding as it doth of the owne accord, a man never needs to caſt and throw it upon the land, as other corne. It is firſt ſowne, and laſt gathered: and lightly both theſe ſeaſons fall out in the moneth of September; for if the Seednes prevent not the winter, ſo as it may have good root before it commeth, it will bee in daunger of the cold. Over and beſides, if it chaunce to lie bare and uncovered above-ground, leſt
F careleſſely without any keeping, and that no rain come upon it preſently for to drive it into the ground, it is ſafe enough and catcheth no harme; for ſo bitter it is, that no living creature will touch it: and yet for the moſt part the husbandmen beſtow a light furrow upon it, and ſo cover it very ſhallow. If the ground be faſt and heavie, it loveth that beſt which ſtandeth upon a red clay. And for the maintaining and enriching of this kind of ſoile, it muſt be turned up or eared after

after the third flouring: but in caſe it be gravelly or ſandie, it will ſerve to doe it after the ſecond. Chalkie grounds onely and myrie it hateth, and therein it will not grow. As bitter as otherwiſe it is, yet if it be ſteeped and ſoked in hote water, it is mans meat alſo. Moreover, one Modius or pecke of Lupines is ſufficient for to ſatisfie and feed an oxe or a cow at a time: and this kind of provender will make beaſts ſtrong and healthfull. Moreover, the meale of Lupines applied to the bellies of young children that have the wormes, is a ſingular remedie. For the good keeping of Lupines, all men agree that they ſhould bee laid up in ſome chimney or ſmokie place eſpecially; for if they lie in a moiſt roome, there be certaine little worms that will nibble off and eat the tip or navell that it hath, and by that meanes marre it for ever ſprouting againe. Finally, if Lupines be eaten downe by beaſts, while they be greene in the leafe, the ground where they grew muſt preſently be ploughed up.

Chap. xv.

Of Vetches and Ervile.

VEtches alſo doe manure and fat the ground where they be ſowed; neither be they chargeable or ſtand the husbandman in much: they be ſown with one tilth; otherwiſe there needs no harrowing nor weeding: there is required no mucking; only they would be covered with mould and the clods broken. For ſowing of Vetches, there be three ſundrie times: firſt, about the ſetting of the ſtarre Arcturus, that by the moneth of December it may get a good head for to be eaten with beaſts; and it is generally holden, that beeing ſowed in this ſeaſon, it will bring the beſt ſeed; for ſay it be eaten downe then, it will carrie the burden nevertheleſſe: the ſecond Seednes is in Ianuarie: the laſt in March; and beeing then put into the ground, it will run up moſt to blade, and yeeld the beſt forage for cattell. Of all ſeeds that are caſt into the earth, it loveth drought moſt: it can brooke alſo ſhadie places well enough. The chaffe that commeth of the ſeed thereof, is excellent good; and better than any other, in caſe it were ripe when it was gathered. It robbeth vines of their nouriſhment, if it bee ſowed neare thoſe trees whereto vines are wedded; inſomuch as a man may ſee evidently how they languiſh.

As touching Ervile, it asketh no great hand or travaile about it: yet thus much more attendance it requireth than Vetches, for that it muſt be weeded and grubbed about the roots. Beſides, this kind of pulſe is of great uſe in Phyſicke; for *Auguſtus Cæſar* was cured of a diſeaſe that he had, and recovered his health by the meanes of Ervile, as himſelfe reporteth in ſome of his letters now extant. Moreover, five Modij or pecks of Ervile ſowne, is ſufficient to maintain and find a yoke of oxen. As for that which is ſowne in March, it is hurtfull forage (men ſay) for kine and oxen: as alſo that which they ſow in Autumne, maketh beaſts heavie and ſtuffed in the head: but that which is put into the ground in the beginning of the Spring, is harmeleſſe.

Chap. xvi.

Of Fœnigreeke: of Rie: of Dredge: of the provender corne or Bolimong Ocymum: of Spaniſh Trefoile or horned Claver-graſſe, called in Latine Medica: of the ſhrub Trifoile, named Cytiſus.

FOr the ſowing of Silicia or Siliqua, otherwiſe called Fœnigreeke, there needs no more but to ſcarrifie or ſcrape it lightly up with a furrow not above foure fingers breadth deepe; for the leſſe coſt and husbandrie that is beſtowed about it, and the woſſe that it is uſed, the better it proſpereth and yeeldeth greater encreaſe: a ſtraunge thing to be ſpoken and ſeldome verified, *That Negligence ſhould be any waies profitable*; and yet herein it prooveth true. That which is called * Secale and Farrago in Latine, [*i.* Rie] needeth no more adoe but to be harrowed and the clods well broken. There is a kind of Secale or Rie, which the people called Taurines dwelling under the Alpes, doe call Aſia: it is ſimply worſt of all other, and good for nothing but onely to drive away hunger: plentifull enough this corne is and yeeldeth good encreaſe, but the ſtraw is ſlender: blacke it is and of an unpleaſant colour, howbeit exceeding weightie and ponderous: they uſe to mingle the red wheat Far therewith, and make thereof a Maſcelline, to allay the bitterneſſe thereof; and yet for all that, the bread which it maketh is moſt unſavorie to the mouth and ill for the ſtomack. It will come up in any ground whatſoever, and bring forth a hundred fold

ordina-

A ordinarily; neither doth it eat the ground out of heart, but rather maketh it more battle, and ſerveth in ſtead of compoſt or mucke.

As for that kind of dredge or farrage which commeth of the refuſe and light corne purged from the red wheat Far, it ought to be ſowne very thicke, with Vetches otherwhiles mingled among. In Africke, the ſame mixture is made of Barley. All theſe are good onely for provender and beaſts forage: as alſo a baſtard kind of Vetches called * Cracca, which pigeons love ſo well, that if they be fed once therewith, they will never leave the place where they taſted it, nor flie far from thence. In time paſt our aunceſtours had a kind of fodder or provender, which *Cato* called Ocymum, wherewith they * uſed to ſtay the gurrie in kine and oxen. This forrage was made of * beane ſtalkes cut downe greene as it ſtood before it was joynted and codded. But *Sura Manlius* B taketh this dredge to be another thing, ſaying, That in old time they uſed to put unto ten Modij of Beanes, twaine of Vetches and as many of Ervile, and ſo were woont to blend all togither and ſow them in an acre of ground at the fall of the leafe: and (ſaith hee) it would be the better balimong if there were ſome Greeke Otes mingled withall, ſuch as never ſhed the ſeed out of the haw. This manner of dredge was called uſually Ocymum, and was woont to be ſowne for a kind of forrage to ſerve kine and oxen. *Varro* ſaith, that it tooke that name becauſe it commeth up ſo ſpeedily, as being derived from the Greeke word ὠκὺς, which ſignifieth, Quicke, or Swift.

As for the graſſe or hearb Medica [a kind of Claver or Trefolie] the Greekes held it in old time for a meere ſtraunger, as being brought into Greece from Media during the Perſian wars, which King *Darius* levied againſt Greece: howbeit, an excellent Simple it is, and worthy to be C written of in the firſt place. And to begin withall, this ſingular propertie it hath, That with once ſowing, it continueth above thirtie yeeres without any need of renewing. Like it is to Claver or three-leaved graſſe, both in leafe and ſtalke, but that the ſtemme is parted by knots and joints. Moreover, as it riſeth higher and runneth up in the ſtalke, the leaves grow narrower. Of this herb alone and of Cytiſus, *Amphilochus* compiled one whole booke; howbeit, he wrate of them both confuſedly. The ground wherein it is to bee ſowed, after it is well rid of ſtones and cleanſed, muſt be broken up and well tilled in the fall of the leafe. Soone after it needeth to have another fallow and be harrowed withall, and then covered with hardles: this would bee done two or three times (five daies betweene) and therewith it ought to bee throughly dunged. This hearbe requireth a ſound drie ground, and yet ſuch as is full of ſucculent moiſture within, or elſe where water is neare D at hand to commaund. The ground beeing thus prepared, ought to bee ſowed in the moneth of May following, for otherwiſe the froſt would take it and marre all. Moreover, requiſite it is, that it be ſowed very thicke, ſo as every place be taken up therwith, thereby to exclude all other weeds and give them no roume there to grow. To this effect therefore every acre will take twentie Modij or pecks of ſeed. But take heed withall, that it be not burnt ſo ſoon as it is put into the ground, and therefore immediately it muſt be covered with mould. If the ſoile be moiſt and given to bear other graſſe, the ſeed is ſoone overgrowne and choked, and then all will run to graſſe, and turne to be a meddow. Which graſſe or coich when you ſee begin to overrun the ground, it muſt be all weeded out preſently an inch deepe within the ground, and by hand rather than any weeding hooke or thiſtle-ſpade. Now, when this hearbe Medica or Claver graſſe beginneth once to flour, E cut it downe: and ſo often as it floureth againe, downe with it. Thus you may have ſixe mathes in one yeare, or foure at the leaſt. You muſt never let it ſpindle and beare ſeed: for better is it to take it thus in the growth, while it is but young and greene graſſe, for three yeares together: and the forrage or fodder is moſt profitable. Sowne (I ſay) it muſt bee in the Spring, and weeded for the firſt three yeares. The greene ſourd afterwards ought to bee pared away with hookes and ſpades cloſe to the ground: for by this meanes you ſhall bee ſure, that all other weeds will die, and this hearbe take no harme by it, for that by this time it is deepely rooted. If the weeds doe get head and overcome it, the onely remedie is by the plough, to turne up the ground over and over ſo many times, untill all other roots be killed. Moreover, heed muſt bee taken, that of this herbage or fodder, beaſts doe not eat their fill; for feare you be driven of neceſſitie to let them bloud, and F take downe their rankeneſſe. The greener that it is, the more profite commeth thereof: for it drieth braunch after braunch, untill at length it will crumble like duſt or pouder, and then is it good for nothing.

As touching Cytiſus, [*i.* the Shrub Trifolium] which is a ſingular kind of paſturage, and paſſeth all the reſt, I have written at full in my diſcourſe of Shrubs. For now at this preſent I am to proſecute

* or, rather *Arachos.*

* *Siſtebant. Varro* ſaith *Citabant*, which is clean contrary.

* *Sabali ſegete antequã generet.*

cute and goe through the treatiſe of other ſorts of corne and their nature, if I had once written ſomewhat in one part thereof as touching the accidents and imperfections that happen among them. G

Chap. xvii.

The faults incident to corne, and their remedies. Alſo what corne is reſpective to this or that ſoile, for to be ſowne therein.

THe firſt and principall defect obſerved in bread-corne, and Wheat eſpecially, is when it doth degenerate and turne into Otes: and not onely it, but Barley alſo doth the like. Semblably, Otes otherwhiles ſerve the turne in ſteed of bread corne: as wee may ſee in ſome countries of Almaine, where they do uſually ſow it, and commonly they have no other pottage there, than Oatmeale gruell [which they call Abremouz.] The foreſaid defect and imperfection is occaſioned cheefely by the moiſt ſoile or overwet weather. Another cauſe there followeth alſo thereupon, proceeding from the feebleneſſe and weakeneſſe of the ſeed, namely, when it lieth long ſobbing in the ground, before it come up: and hereto may be referred the faultines of the ſeed otherwiſe, namely, if it were worme-eaten or otherwiſe rotten at the time of ſowing. And verily, no ſooner appeareth it above ground, but the foreſaid change or baſtardie may be ſeene, whereby it doth appeare, that the cauſe is in the root. H

A ſecond defect or imperfection there is alſo incident to corne, which hath ſome near reſemblance to the Otes aforeſaid; namely, when the graine being formed and newly come to the juſt proportion of bigneſſe (howbeit, not yet full and ripe) before that it is firme and hard, is ſmitten with a noiſome blaſt, and ſo, like an abortive fruit, decaieth and windereth away within the eare; in ſuch ſort, as there is no ſubſtance left therein, but appeareth void and emptie. Now theſe adverſe and malignant winds hurt all ſpiked corne, as well Wheat as Barley, at three ſeverall times: to wit, in their flower; preſently upon their blouming; and laſt of all, when they begin to ripen; for then, namely when they are upon the point of maturitie, thoſe blaſts conſume the graine, and bring it to nothing, which before was full: whereas at the two former ſeaſons they hinder it altogether from knitting and growing. The hote gleames moreover of the Sunne, betweene often clouding, doe much harme to corne. I

Furthermore, there be certaine little wormes breeding in the root, that doe eat it: which happeneth by occaſion of much raine falling immediately after the ſeednes, eſpecially, when ſome ſome ſuddaine heat and drowth enſueth therupon; which bindeth the earth above, and ſo, encloſeth the moiſture conceived within, the very cauſe & nourice of putrifaction. Ye ſhall have other ſuch like vermine engender likewiſe in the very graine of the corne, namely, when the eare doth glow within, and is chafed with ſultrie hote raines. Over and beſides, there be certaine [green] flies like ſmall Beetles, called Cantharides, which doe gnaw and eat the corne. But all theſe, and ſuch like wormes or flies die preſently, when the corne (which was their food) is gone. Moreover, Oile, Pitch, and Tarre, all manner of greace alſo, bee contrarie to ſeed-corne eſpecially; and therefore take heed that you ſow none ſuch as hath caught Oile, Pitch, or Greace. As for ſhowers of raine, good they are for corne, ſo long onely as it is in the greene blade: when corne is blouming (be it either Wheat or Barley, or ſuch like) raine is hurtfull. Marie Pulſe takes no harme therby, unleſſe it be the Cich-peaſe. K L

All kinds of Wheat and other bread corne, when they be toward ripeneſſe, catch hurt by ſhowers; but Barley more than any. Beſides all this, there is a certaine white hearbe or weed reſembling Panicke, growing among corne, and overſpreading whole fields: which not onely hindereth corne, but alſo killeth all the cattell that feedeth thereupon. For as touching ray or darnell, burs, thiſtles, and brambles, I may hold and reckon them, not ſo much for faults and imperfections of corne, as rather the plagues and infections proceeding from the very earth. And for blaſting, which commeth of ſome diſtemperature of the aire (a miſcheefe common as well to corne, as vines) it is as hurtfull as any other maladie whatſoever. This unhappie blaſt falleth moſt often in places ſubject to miſts and dewes, and namely, hollow vallies and low grounds lying under the wind: for contrariwiſe, windie quarters, and ſuch as are mounted high, are not ſubject to this inconvenience. Alſo, wee may number among the faults incident to corne, their rankeneſſe; namely, when the blade is ſo overgrowne, and the ſtalke ſo charged and loden with a heavie head that the corne ſtandeth not upright, but is lodged and lieth along. Moreover, when there falleth M

a great

A a great glut of raine,inſomuch as the ground ſtands with water,there befalleth unto all corn and pulſe,yea,and whatſoever is ſowne,a certaine diſeaſe called in Latine Vrica: inſomuch,as the very Cich-peaſe taketh hurt thereby: for by reaſon that the raine waſhed from them that ſalt qualitie which is naturall thereunto, it becommeth ſweeter than it ſhould bee, and looſeth the kind taſt. There is a weed that claſpeth and tieth about Ciches and Ervile, whereby it choketh and killeth them both: and thereupon it is called Orobanctum, *i.* Choke Ervile. After the ſame manner dealeth *Raie or Darnell by Wheat; wild Otes likewiſe,named by ſome Ægilops, with Barley; as alſo the weed Securidaca, *i.* Ax-fitch, which the Greekes alſo(for the reſemblance that it hath to an axe head) call Pelecinon, *with Lentils. Theſe weeds (I ſay) kill corne by winding about it. Another hearb there is,growing neare to the citie Philippi,which killeth Beans: if the ground
B be fat and good,they name the ſaid weed Ateramnon: but if it bee found in a hungrie and leane ſoile,and namely,when being wet, ſome unhappie wind bloweth upon it,they call it Teramnon. As for the graine of Raie or Darnell, it is very ſmall, and lieth encloſed with a ſharpe-pointed huske. The bread which hath any of this ſeed in it,ſoone cauſeth dizzineſſe and ſwimming of the head. And(by report)in Aſia and Greece the maiſters of the common Baines and Stuphs,when they would keepe away the great reſort of multitude thither, have a deviſe to caſt Darnell ſeeds upon burning coales; for this perfume will quickly ſet them farther off. Moreover,if the Winter prove to be wet and wateriſh,yee ſhall have in the Pulſe called Ervile,a little vermine engendred there,called Phalangion,and it is of the kind of theſe Spiders. Likewiſe upon Vetches there will breed naked dew-ſnailes,yea,and otherwhile thoſe little ones with ſhels or houſes on their backs,
C which creeping from the ground,will gnaw & eat them,that it is a wonder to ſee what foule work they will make. Thus much concerning all the maladies and inconveniences(to ſpeake of)incident to corne. It remaineth now to ſpeake of the remedies.

As touching the cure of thoſe harmes that come by hurtfull weeds to the corne in blade,it conſiſteth principally in two things: namely, either in the uſe of the weeding knife or hooke,when they be newly come up; or elſe in ſtrewing aſhes when the corne is a ſowing. But as for thoſe dangers that touch the ſeed or graine in the eare and cod,as alſo that ſettle about the root,they muſt be prevented by good forecaſt,even before it be thrown into the ground. It is generally thought that if ſeed-corne lie ſteeped beforehand in Wine, it will bee better able afterwards to reſiſt all diſeaſes whatſoever. *Virgill* giveth order to infuſe or ſoke the Beanes that muſt be ſowne, in Nitre
D and Oile lees or dregs: and hee aſſureth us,that they will proſper mightily beſides, and become exceeding great. But others are of opinion, That if for 3 daies before they bee caſt into the earth they lie in urine and ſhere water mingled together,they will being thus prepared,come on apace, and thrive paſſing well. It is ſaid moreover, That if Beanes bee thrice raked and rid from weeds, one Modius of them being whole and ſolide,will yeeld a Modius againe after it is husked & broken. As for other ſeed-corne,it will eſcape the danger of the worme,if either it lie before among Cypreſſe leaves bruiſed; or be ſowed in and about the change of the Moone,namely,when ſhe is not to be ſeene above the earth in our hemiſphære. Many there be who practiſe other remedies: and namely for the Millet,they would have a toad to be caried round about the field before that it be harrowed: which done,to bee put cloſe within an earthen pot,and ſo buried in the middeſt
E of the ſaid field: and by this meanes forſooth,neither Sparrows will lie upon the corne, nor any worme hurt it. Marie,in any caſe this ſame toad muſt be digged out of the ground againe before the field bee mowed,elſe will the Millet proove bitter in taſt. The like experiment they ſay is of a Moldwarpes ſhoulder,for if any corne be ſowed or touched therewith before,it will come up the better and bring more encreaſe. *Democritus* had a deviſe by himſelfe for all ſeed & corne whatſoever,namely,to temper & ſoke the ſame corne in the juice of the hearb Houſleeke or Sea-green, growing upon houſes either tiled or ſhindled; which in Greeke is called Aizoon, and in Latine Sedum or Digitellum; for this medicine will ſerve for all maladies. The common practiſe of our Husbandmen is this,In caſe through the overſweet ſap or juice in greene corne,wormes take to the roots: for to ſprinckle them with ſimple oile lees pure and cleane without any ſalt,and afterF wards to rake it in. Alſo,when the corn begins to joint and gather into knots,then to cleanſe the ground,and put off no longer,for feare leaſt the weeds do get head and overgrow. This I am ſure upon mine owne knowledge, that there is an hearbe (but what proper name it hath I wote not) which if it bee enterred in the foure corners of a field that is ſowne with Millet,it will drive away Stares and Sparrowes,which otherwiſe would by whole flights and flockes lie thereupon and doe much

*Æra.4.

*φακὸν, but more truly ἀετὸν, out of *Theophraſtus*. Thus *Plinie* miſtaketh in many places: and for example,immediately in the word *Ateramnos*, which is appropriate to all Pulſe that require much ſeething, or be hard of digeſtion. *Theophraſt. cap.* 13. & 14. *lib.*4. *de Plant.*

much harme: nay I will ſpeake a greater word and which may ſeeme wonderfull, There is not a C
bird of the aire one or other, that dare enter or approach ſuch a field. Field-mice and Rats are
skared away and will not touch corne, which before the ſowing was either beſtrewed with the
aſhes of Weaſils or Cats, or elſe drenched with the liquor and decoction of water wherein they
were boiled: howbeit this inconvenience enſueth hereupon, That bread made of ſuch corn will
have a ſmach, and ſent ſtrongly of ſuch Cats and Weaſils: and therefore it is ſuppoſed a more
expedient and ſafer way to medicine our ſeed-corne with oxe gall, for to preſerve it from the
ſaid Mice and Rats. But what remedie againſt the blaſt and mildew, the greateſt plague that can
befall upon corne? Mary pricke downe certaine Lawrell boughs here and there among the ſtan-
ding corne, all the ſaid miſts and mildews will leave the corne and paſſe to the Bay leaves, and
there ſettle. What ſhall we doe then to corne when it is over-ranke? Eat it me downe with ſheep H
and ſpare not, whiles it is young and in the blade onely, before (I ſay) it be knotted: and never
feare harme by the ſheeps teeth as neare as they go to the ground: for let it be thus eaten many
times, the corne will be the better, yea and the head will take no harme thereby but proove the
fairer. If ſuch ranke corne be once cut downe with the ſyth, and no more, certein it is that the
graine in the eare will bee the longer to ſee to, howbeit void and without any floure within it: for
ſow ſuch ſeed againe, and it will never grow nor come up. And yet about Babylon, the manner is
to mow it twiſe firſt, and the third time to put in ſheepe to it for to eat it downe; otherwiſe the
corne would never ſpindle, but blade ſtill, and run all to leaſe. But being thus cut and cut againe,
* Fœlicitas ſoli. and eaten in the end, yee ſhall have it to encreaſe and multiply fiftie for one, *ſo fertile is the
ſoile: and if the owner be a good husband beſides, and uſe the ground accordingly, hee ſhall I
reape thrice as much, even a hundred and fiftie fold. And what carefull diligence is that which
is here required? Surely neither much, nor difficult: onely he muſt be ſure to keepe the ground
well with watering for a long time togither, to the end that it may be diſcharged of the overmuch
fat within it, which by this meanes will be waſhed well away, and the rankneſſe delaied. Yet as rich
and fertile as this ſoile is, the two rivers Euphrates and Tigris (which uſe to overflow and water
the countrey) bring no ſlimie mud with them, as Nilus doth in Ægypt, whereby the ground is
made ſo fat as it is: neither is the nature of the earth there, given to breed hearbs that it ſhould
need any weeding: and yet ſo plenteous and fruitfull it is, that it ſoweth it ſelfe againſt the next
yeere; for the corne that ſheddeth in the reaping and mowing, being troden under foot into the
ground, is as good as a ſowing, and riſeth of it ſelfe without any further labour.

Seeing then there is ſo great difference in the ſoile, I am put in mind therby to fit every ground K
with ſeed reſpectively, according to the nature and goodneſſe thereof. This therefore is the opi-
nion of *Cato*, That in a groſſe and fat ſoile, there would be wheat and ſuch like hard corne ſowne:
and if the ſame bee ſubject alſo to miſts and dewes, there may be ſowed therein Radiſh. Millet,
and Panicke, muſt be ſowed firſt in a cold and wateriſh ground; and afterwards for change, in a
hot ſoile. *Item*, the red bearded wheat Far or Adoreum, requireth a chalkie and ſandie ground,
and namely if it be well watered. *Item*, the common wheat loveth a drie ſoile, expoſed to the
ſunne, and not given much to breed ſuperfluous weeds. *Item*, Beans will doe well in a ſound and
faſt ſoile. As for Vetches, they care not how little they be ſowed in a moiſt peece of ground, and
ſuch as is apt to run to graſſe. Moreover, for the fine winter wheat Siligo, whereof the beſt man- L
chet is made, as alſo for the common frumentie wheat, there would be choſen an open & high
ground, lying pleaſantly upon the ſunne, that it may have the heat thereof to parch it as long
and as much as is poſſible. As for Lentils, they doe like a good rough and ſhrubbie ſoile, full of
red earth, ſo as it be not apt quickly to gather a green-ſord. * Barley would gladly grow upon a
* οἶτος ἐν πολλῷ πεδίῳ δ' ἐν κόπῳ. Plutarch. reſtie ground new broken up, or elſe ſuch as be in heart to beare every yeere. And as for ſummer
(barley) of three moneths, it would bee ſowne in a ground where it could not have an early or
timely Seednes, and which is ſo fat and rich, as it may affourd to beare crop, yeer by yeer. Finally,
to ſpeake to the purpoſe indeed, this alſo is *Catoes* wittie reſolution in one word for all: If the ſoile
be light and leane, ſeed it with ſuch graine or forage ſeed, as require no great nouriſhment, as for
example, with Cytiſus; and excepting the Cich peaſe, with all pulſe that are uſed to be plucked M
out of the earth, and not mowed downe: and thereupon indeed are theſe pulſe called in Latine
Leguminа, becauſe they are plucked and gathered in that ſort: but in caſe the ground be good
and fat, ſow ſuch things as require fuller food and nutriment; and namely, all garden woorts and
pothearbs; wheat, both the common and the fine; and Lineſed. Then, according to this rule, a

leane

A leane and hungrie ſoile will well agree with barley, for the root is contented with leſſe nutriture: whereas contrariwiſe we allow both lighter, and alſo more maſſie and richer ground for our ordinarie wheat. In a low and wet peece of ground, it is good to ſow the red wheat Adoreum, rather than the common wheat Triticum: but both it and barley will ſort well with a ſoile of a middle temperature. The hills yeeld a firme, faſt, and ſtrong kind of wheat, but the graine is but ſmall. And to conclude, the beſt kinds of wheat, to wit, Far and Siligo, challenge for their lot to be ſeared in a chalkie ſoile, and therewith alwaies wet and ſoked in water.

Chap. XVIII.

Of ſtraunge prodigies and wonders obſerved in corne: the knowledge and skill of
B *earing and tilling the ground: alſo divers ſorts of plough-ſhares.*

ALbeit I have in the title of this chapter purpoſed to write of prodigies ſeene in corne, yet to my knowledge, there never happened but once the like wonder and portenteous ſight to this which I ſhall tell, and which befell in the time that *P. Ælius* and *Cn. Cornelius* were Conſuls of Rome; that very yeare wherein *Anniball* with his whole armie was defeated and vanquiſhed: for then (by report) there was corne grew upon trees.

But foraſmuch as I have diſcourſed at large of the ſundrie kinds as well of corne as of ground, I will proceed now forward and come to the manner of ploughing the earth, after I have firſt ſet downe before all things elſe, how eaſie the husbandrie is in Ægypt: for there the river Nilus
C ſerving in ſtead of a good ploughman, beginneth to ſwell and overflow (as wee have before rehearſed) at the firſt new moone after the Summer ſunſtead. He beginneth faire and ſoftly, and ſo encreaſeth more and more by little and little; but all the while that the Sunne paſſeth under the ſigne Leo, he higheth apace untill he be riſen to his full heigth: being entred once into Virgo, his furie ſlaketh; then decreaſeth hee as faſt, untill he be falne againe into his wonted channell; which ordinarily happeneth by the time that the ſunne is in Libra. Now this is obſerved, That if he riſe not plumb above twelve cubits high, the people are ſure to have a famine of corne that yeere: the like alſo doe they make account of, in caſe hee paſſe the gage of ſixteene cubits: for the higher that he is riſen, the longer it is againe ere he be fully falne, by which time the Seednes is paſt, and men cannot ſow the ground in due ſeaſon. It hath been generally received for a
D truth, That preſently upon the departure of this deluge and overflowing of Nilus, they were woont to caſt their ſeed-corne upon the floten ground, and preſently let in their ſwine after for to trample it with their feet into the earth whiles it was ſoft and drenched. And verily, for mine owne part, I beleeve well, they uſed ſo to doe in old time: for even now adaies alſo, much more ado they make not about it. Howbeit, this is certein, that firſt they caſt their ſeed upon the ſlime and mud ſo ſoone as the river is downe, which commonly falleth out in the very beginning of November: which done, they goe over it with the plough and give it a light tilth, ſo as it may be covered only & lie under a ſmall furrow. Some few there be that afterwards fall to weeding, which point of husbandrie they call Botaniſmos: but the moſt part, after they have once ſowed and turned their ſeed into the ground, never after make a ſtep into field to ſee how their corne grow-
E eth, untill they go once for all with ſyth on necke or ſickle in hand, namely at the end of March; for then they fall to reaping and cutting it downe: ſo as by the moneth of May they ſung in Ægypt, Harveſt in, and all is done for that yeare. As touching this corne gathered in Baſe Ægypt, the ſtraw is never a cubit long: the reaſon is, becauſe the ſeed lyeth very eb, and hath no other nuttiment than from the mud and ſlime aforeſaid; for under it is nothing but ſand and gravell. But thoſe that inhabit higher up into the countrey, namely about Thebais, they be farre better provided for corne, becauſe Ægypt indeed (for the moſt part) lyeth low upon marais ground. Toward Babylon likewiſe and Seleucia (where the rivers Euphrates and Tigris doe ſwell over their banks and water the countrey) the ſame husbandrie is practiſed, but to better effect & greater profit, by reaſon that the people may let in the water at ſluces and floud-gates, more or leſſe
F with their owne hands, according as they liſt themſelves. Alſo in Syria, they have their ſmall ploughs for the nones to take a ſhallow ſtitch and make light worke: whereas in many places here with us in Italie, eight oxen are little enough to every plough, and to goe away withall they muſt labour at it till they blow and pant againe. It is an old ſaid Saw, and may goe for an oracle to be practiſed in all parts of husbandrie, but in this point of ploughing eſpeciall, *Bee ruled by*

the nature of every countrey, and see what each ground will abide. To come now unto our ploughs. G
Of Shares, there be many sorts: first, there is that instrument called a Culter, which serveth to make way before, cutting and cleaving the hard and thicke ground as it goeth, before it be broken up and turned atoneside: this sheweth by the slits and incisions that it maketh (as it were by a true line drawn) how the furrowes shall go; after which, commeth the broad bit of the ploughshare indeed, lying flatwise, and in earing casteth up all before it, and cleareth the furrow. A second sort there is, commonly used in many places, and it is no more but a bar of yron pointed sharpe in manner of a beake-head or stem of a ship; and it may bee called, a Rostle. And when the ground is not stubborne but gentle to be wrought, there is a third kind used, which is no
*Dentall. other thing but a peece of yron not reaching all over the * plough head and shooing it to the full, but turning up like a snout with a small point sharp at the end. This neb is somewhat broader H
in a fourth kind of shares, but as it is broader in blade and trenchant withall, so it is sharper also at the end, insomuch, that both with the point forward & the edges of the sides, it not only pierceth the ground before it poinctant like a sword, but also cutteth the roots of weeds which it encountreth: a devise invented not long since in Rhœtia. As for the Gauls, they set too besides, certaine small roundles or wheeles; & a plough thus shod & harnaised, they call in their language
* or as some thinke, *Pflugradt.* *Planarati: the head of their share is broad, fashioned like unto the bit of a spade: and thus they sow their grounds for the most part, new broken up and not tilled nor eared before. And for that their plough-shares be large and broad, so much the easier turne they up good turfs of earth and make broad furrowes. Presently after the plough, they throw in their seed, and mould or cover it afterwards with yron-toothed harrowes drawne aloft. Lands in this manner sown, need no other I
raking or weeding; for commonly they make not past two or three bouts in a land, and as many ridges. Finally it is thought, that in this manner there may be sowne in one yeere by the helpe of one yoke of oxen, fortie arpens or acres of land ordinarily, if the ground be gentle and easie to be eared; but if it be stiffe and stubborne, they shall have worke enough to go through thirtie.

Chap. xix.

The seasons that be proper for tilling the ground: also the manner of coupling oxen in yoke.

IN this operation of ploughing ground, I am of mind to follow that Oracle or Aphorisme of *Cato*, who being asked which was the first and principall point of Agriculture, answered K
* *bene colere.* thus, *Even to husband, order, and tend ground well:* being demaunded againe, what was the se-
* *bene arare.* cond, he made answer, *To plough well:* and when the question was propounded concerning the
* *bene stercorare.* third point of husbandrie, he said, *That it consisted in manuring and dunging it.* There bee other necessarie rules besides, set downe by him as touching this matter; namely, Make no unequall furrowes in ploughing, but lay them alike with one and the same plough. Passe not the kindly season, but eare the ground in due time. In the warmer countries, lands would bee broken up and fallowes made, immediatly after the winter Solstice or Sunstead. In colder regions, touch them not before the spring Æquinox or mid-March. In a drie quarter, plough more early than in a moist: sooner also in a fast and compact soile, than in a loose and light ground: in a fat and rich field, than in a leane and poore land. Looke in what climat the Summer is ordinarily drie L
and hot, it is thought more profitable to eare up a chalkie or a light and lean ground, betweene the summer Sunstead and the Æquinoctiall in the fall of the leafe. If the climat be such as yeeldeth but little heat in Summer, and therewith many showrs of raine, where the soile also is fat and beareth a thicke greene-sord, it were better to breake up ground and fallow in the hotest season: where the soile is heavie, grosse, and fat, and wherein a man may tread deepe, I like well that it should be tilled and stirred in winter: but in case it be very light and drie withall, it would not be
*In the Spring. medled with but a little before * Seednes. Here also be other proper rules set down by *Cato*, pertinent to Agriculture: Touch not (qd. he) in any hand a peece of ground that soon will turne to dust and mire. When thou doest plough indeed for to sow, employ thy whole strength thereto: but before thou take a deep stitch for all, give it a pin-fallow before; this commoditie commeth M
thereof, That by turning up the turfe with the botom upward, the roots of weeds are killed. Some are of this opinion, That howsoever we do els, a ground should have the first breaking up about the spring Æquinox. A land that thus hath ben once plowed in the spring, is called in Latin Vervactum, & hath that name of the foresaid time Ver, [*i.* the Spring.] Indeed ley grounds & such as

rest

A reſt ech other yeer, muſt be in this wiſe followed. Now if you would know what the Latins meane by Novale, they take it for a field that is ſowed every ſecond yeere. And thus much of the Land.

To come now unto our draught oxen that muſt labour at the plough: they ought to be coupled in yoke, as cloſe togither & as ſtreight as is poſſible, to the end that whiles they be at worke and ploughing, they may beare up their heads; for by that meanes they leaſt doe gall or bruiſe their necks. If they chaunce to goe to plough among trees and vines, they muſt be muzled with ſome frailes or deviſes made of twigs, to the end they ſhould not brouſe and crop off the young ſprings and ſoft tendrils. Moreover, there ought a little hatchet to hang evermore faſt to the plough beame before, therewith to cut through roots within the ground, that might breake or ſtay the plough: for better is it ſo to doe, than to put the plough to it, to keep a plucking at them,
B or to force the poore oxen to lie tugging and wreſtling with them. Alſo in ploughing, this order is to be kept, That when the oxen are * gone downe with one furrow to the lands end, they turne and goe up againe with another; ſo that in ploughing of a land they * reſt betweene-whiles as little as may be, but evermore goe forward in their labour untill they have made an end of their *halfe acre, or halfe daies worke: and verily it is thought ſufficient for a teeme of oxen to breake up (at the firſt tilth) in one day of reſtie or ley ground, one acre, taking a furrow or ſtitch of nine inches; but at the ſecond tilth or ſtirring, an acre and a halfe: which is to be underſtood, of an eaſie and mellow ſoile to be wrought: for if it be tough and churliſh, it is well if they eare up at the firſt, halfe an acre; and at the next time they may go through with one whole acre, how hard ſoever the ground be: for thus poore beaſts have their taske ſet, and their labour limited by Na-
C tures lore and appointment. Every field to be ſown, muſt be eared at firſt with ſtreight and direct furrowes; but thoſe that follow after, ought to goe byas and winding. If a ground upon the pendant or hanging of the hill bee to be broken up, the furrowes muſt goe croſſe and overthwart: howbeit, the point and beake of the plough ſhare muſt be ſo guided, that one while it bear hard above of the one ſide, and another while beneath on the other ſide: and verily in this mountaine worke, the ploughman that holdeth the plough hath toile enough, and laboureth at it as hard as the oxen doe. Certes, there bee ſome mountaines that have no uſe at all of this beaſt, but they eare their ground with raking and ſcraping hookes onely. The ploughman, unleſſe he bend and ſtoupe forward with his bodie, muſt needs make ſlight worke, and leave much undone as it ought to be; a fault which in Latine we call Prevarication: and this tearme appropriate unto Husban-
D drie, is borrowed from thence by Lawyers, and tranſlated by them into their courts and halls of pleas: if it be then a reprochfull crime for Lawyers to abuſe their clients by way of colluſion, we ought to take heed how wee deceive and mocke the ground, where this fault was firſt found and diſcovered. To proceed, the ploughman ever and anon had need to cleanſe the culter and the ſhare with his ſtaffe, tipped and pointed at the end like a thiſtle-ſpade: hee muſt beware that betweene two furrowes, he leave no naked balkes raw and untilled: alſo that the clots ride not one upon anothers backe. Badly is that land ploughed, which after the corn is ſowed, needs the great harrowes and clotting. Contrariwiſe, a man may know where there is good worke, namely, if the turfe be ſo cloſe couched that there be no ſeames to be ſeene where the plough-ſhare went. Finally, it is a profitable point of husbandrie and much practiſed (where the ground doth both beare
E and require it) For to draw here and there broad gutters or furrowes, to drain away the water into ditches and trenches caſt for the nones between the lands, that otherwiſe would ſtand within and drowne the corne.

*Verſum peregit.
*Strigere.
*Actu.

Chap. xx.

Of harrowing and breaking clods. Of a certaine kind of ploughing uſed in old time. Of the ſecond tilth or fallow called Stirring: and of Cutting.

After the ſecond fallow called Stirring, done with croſſe and overthwart furrow to the firſt; then followeth clodding, if need be, either with rakes or great harrowes: upon which enſueth ſowing; & when the ſeed is in the ground, harrowing a ſecond time with the ſmall har-
F row. In ſome places, where the manner of the countrey doth ſo require, this is performed with a tined or toothed harrow, or elſe with a broad planke faſtened unto the plough taile, which dooth hide and cover the ſeed newly ſowne: and in this manner to rake or harrow, is called in Latine Licare, from whence came firſt the word Delicare, which is to leave bare balkes uncovered, and by a Metaphore and borrowed ſpeech, to rave and ſpeake idly.

It should seeme that *Virgil prescribed, that the ground should have foure tilthes in all, by these words, when he said, That the corne was best, which had two Summers and two Winters. But if the ground bee strong and tough, as in most parts of Italie, there needs a *fift tilth before sowing: and in Tuscane verily they give their ground, otherwhiles no fewer than nine fallowes, before it be brought into tillage. As for Beanes and Vetches, they may be sowed under furrow, without breaking up the ground before; for this is a readie way, gaining time, saving charges, and sparing labour.

And here I cannot overpasse one invention more as touching earing and ploughing the ground, devised in Piemont and those parts beyond the Po, by occasion of some hard measure and wrong offered to the people and paisants of that countrey during the warres. And thus stood the case. The Salassians making rodes into the vale lying under the Alpes, as they forraied and harried the countrey all over, assaied also to overrun their fields of Panicke and Millet being now come up and well growne, meaning thereby to destroy it: but seeing the nature of that graine to be such, as to rise againe and to checke this injurie, they set ploughes into it, and turned all under furrow, imagining by that meanes to spoile it for ever. But see! what ensued therupon? those fields thus misused (in their conceit) bare a two-fold crop, in proportion to other years; and yeelded so plentifull an harvest, as that thereby the paisants aforesaid learned the devise of turning corne in the blade into the ground, which I suppose in those daies when it new came up, they called Aratrare. And this point of Husbandrie they put in practise, when the corne begins to gather and shew the stem or straw, to wit, so soone as it hath put forth two or three leaves and no more.

Neither will I conceale from you another new devise, practised and invented first, not above three years past in the territorie of Treviers, neare to Ferrara. For at what time as their corn fields by reason of an extreame cold winter, seemed to be frost-bitten and spoiled, they sowed the same againe in the month of March, raking and scraping the upper coat of the ground onely without more adoe: and never in their lives had they the like encrease when harvest came. Now as touching all other Tillage and Husbandrie meet for the ground, I will write thereof respectively to the severall kinds of corne.

*Illa seges demum votis respondet avari Agricolæ, bis quæ sol: bis frigora sensit.

*1 Breaking.
2 Stirring.
3 Crushing.
4 Setting up.
5 Casting down.

Chap. xxi.

Of the tillage and ordering of the ground.

THe fine Wheat Siligo, the red bearded Wheat Far, and the common Wheat Triticum; Spelt or Zea (generally called Seed,) and Barley, when they be new sown, would be well clotted and covered first, harrowed afterwards, and weeded at the last to the very root; all at such seasons as shall be shewed hereafter. And to say a truth, every one of these is a sufficient worke for one man to doe in a day throughout an acre. As for the Sarcling or second harrowing, it dooth much good to corne: for by loosening the ground about it, which by the Winter cold was hardened, clunged, and (as it were) hide-bound, it is somewhat enlarged and at libertie against the Spring tide, and full gladly admitteth and receiveth the benefite of the fresh and new come Sunshine daies. Let him take heed who thus sarcleth or raketh the ground, that he neither undermine the roots of the corne, nor yet race or disquiet and loosen them. The common wheat, Barley, the Seed Zea, (*i.* Spelt) and Beanes, would doe the better if they were thus sarcled, and the earth laid loose about them twice. The grubbing up of weeds by the root, at what time as the corn is jointed, (namely, when the unprofitable & hurtfull hearbs are plucked forth and rid out of the way) much helpeth the root of the corne, discharging it from noisome weeds, procuring it more nutriment, and severing it apart from the other greene sourd of common grasse. Of all Pulse, the Cich pease asketh the same dressing and ordering, as the red wheat Far. As for Beanes, they passe not at all for weeding: and why? they overgrow all the weeds about, and choke them. The Lupines require nought else to bee done unto them but onely weeding. Millet and Panicke, must bee clotted and once harrowed untill they bee covered: they call not for a second raking and scraping about them, for to loosen the earth, and to lay fresh mould unto them; much lesse to be weeded. As for Silicia or Siliqua, *i.* *Fenigreeke, and Fasels, *i.* Kidney-Beanes, they care onely for clodding, and there an end.

Moreover, there be certaine grounds so fertile, that the corne comming up so thicke and rank in the blade, ought then to be kembed (as it were) & raked with a kind of harrow set with teeth or spikes

* For so he interpreteth it himselfe in the 16 chap. of this booke.

A ſpikes of yron: and yet for all this, they muſt be graſed or eaten downe beſides nevertheleſſe with Sheep. Now we muſt remember, that after ſuch cattell hath gone over it with their teeth, the ſame corne thus eaten downe, muſt of neceſſitie bee ſarcled, and the earth lightly raked and raiſed up freſh againe. Howbeit, in Bactriana, Affricke, and Cyrene, there needs no ſuch hand at all: for the climate is ſo good, ſo kind, and beneficiall, that none of all this paines is required: for after the ſeed is once ſowne, they never viſite it but once for all at nine moneths end, at what time they returne to cut it downe and lay it upon their thraſhing floores: the reaſon is, becauſe the drought keepeth downe all weeds; and the deawes that fall by night, are ſufficient to refreſh and nouriſh the corne.

Virgil is of opinion, That fallowes would be made every yeare, and that our corn field ſhould
B reſt betweene whiles, and beare but each other yeare. And ſurely, I doe find this rule of his moſt true, and doubtleſſe right profitable; in caſe a man have land ynough for to let his grounds play them, and reſt every ſecond yeare. But how if a man is ſtreighted that way, and hath no ſuch reach and circuit lying to his living? Let him helpe himſelfe this way: let him (I ſay) ſow his good red wheat Far againſt the next yeare, upon that ground from whence he gathered this yeare a crop of Lupines, Vetches, or Beanes, or ſome ſuch graine as doth enrich and mucke the ground. For this alſo is principally to be noted, that ſome corne is ſowne for no other purpoſe, but by the way as it were to advance and helpe others to fructifie: howbeit, ſmall fruit and encreaſe (to ſpeake of) ariſeth thereby, as I have obſerved once for all in the booke immediately going before, becauſe I would not willingly reiterate and inculcate one thing often. For herein regard eſpecially ought
C to be had, unto the nature and propertie of every ſoile.

Chap. xxii.

Of certaine countries exceeding fertile and fruitfull. Of a Vine bearing grapes twice in one yeare. Of the difference and diverſitie obſerved in waters.

THere is in Affricke or Barbarie a citie called Tacape, ſituate in the middeſt of the ſands, as men goe to the Syrts and Leptis the great: the territorie lying about which citie, by reaſon that it is ſo well watered, is marvellous fruitfull, and indeed paſſeth a wonder and is incredible. Within this tract there is a fountaine, which ſerveth abundantly for three miles well neere,
D every way; the head thereof verily is large ynough otherwiſe, howbeit the inhabitants about it are ſerved with water from thence by turnes, and diſpenſed it is among them at certaine ſet houres, and not otherwiſe. Ther ſtandeth there a mightie great Date tree, having under it growing an Olive, under which there is a Figge tree, and that overſpreadeth a Pomgranate tree, under the ſhade whereof there is a Vine: and under the compaſſe thereof, firſt they ſow Frumentie or eared corne, after that Pulſe, and then worts and hearbes for the pot, all in one and the ſame yeare. Every one of theſe rehearſed, live, joy, and thrive under the ſhade of others. Every foure cubites ſquare of this ſoile (taking the meaſure of a cubite from the elbow, not to the fingers ends ſtretched out in length, but claſped together into the fiſt) is ſold for *foure deniers Romane. But this one ſurpaſſeth all the reſt: The Vines in the ſaid territorie beare twice a yeare, and yeeld their
E grapes ripe for a double Vintage. So exceeding fruitfull is the ſoile, that unleſſe the rankeneſſe thereof were abated and taken downe, by bearing ſundrie fruits one under and after another, ſo that it were emploied to one thing alone, the inhabitants ſhould never have any good thereof: for by reaſon of the over-rankeneſſe, each ſeverall fruit would periſh and come to naught. But now by means of plying and following it ſtill with ſeed, a man ſhall gather one fruit or other ripe, all the yeare long. And for certaine it is knowne, that men cannot overcharge the ground, no nor feed the fertilitie of it ſufficiently.

*2 ſh. 6 d. ſterl. By which reckoning one acre would coſt above 20 pound ſterling: ſo much in proportion of the whole, as this cubit is under our halfe yard or 18 inches.

Moreover, all kinds of water are not of like nature nor of equall goodnes, for to drench and refreſh the ground. In the province of Narbone, now Languedoc, there is a famous well or fountaine named Orge, within the very head whereof there grow certain hearbes, ſo much deſired and
F ſought for by kine and oxen, that to ſeeke and get a mouth full of them, they will thruſt in their whole heads over their eares, untill they meet therewith. But howſoever theſe hearbes ſeeme to ſpring & grow within the water, certain it is, that nouriſhed they are not, but by rain from above. And therfore to conclude and knit up all in one word, Let every man be well acquainted with the nature both of his owne land which he hath, and alſo of the water wherewith he is ſerved.

G

Chap. xxiii.

Of the diverse qualities of the soile. Also, the manner of dunging or manuring grounds.

IF you meet with a ground of your owne, which wee called heretofore by the name of Tenara, the floure indeed and principall of all others: after you have taken off a crop of Barley, you may very well sow Millet thereupon: and when that is inned and laid up in the barne, proceed to Raddish. Last of all, after they bee drawne, there may bee Barley or common Wheat sowed in the place, like as they doe in Campaine: for surely such a peece of ground needs no other tillage, but often sowing. Another order there is besides this in sowing of such soile, namely, that where H there grew the red wheat Adoreum or Far, there the ground should rest all the foure Winter moneths, and in the Spring be sowed againe with Beanes; so that it alwaies be emploied & kept occupied untill Winter without any intermission. And say that the ground be not altogether so fat, yet it may be ordered so, that it be ever bearing by turnes in this sort, that after the Frumentie or Spike corn be taken off, there be pulse sowed three times, one after another. But in case the ground be over poore and leane, it must bee suffered to rest and take repose two yeares in three. Moreover, many Husbandmen do hold, that it is not good to sow white corne or Frument upon any land, but such as lay fallow and rested the yeare before.

However it be, the principall thing in this part of Agriculture, consisteth in dunging: whereof I have written alreadie in the former booke next to this. This one point only is resolved upon by I all men, that none of our grounds ought to be sowed, unlesse they bee manured and mucked before. And yet herein must we be directed by certaine rules peculiar and proper thereunto, as follow. Millet, Panicke, Rapes, Turneps or Navewes, ought never to be sowed but in a ground that is dunged. If there bee no compost laid upon a ground, sow upon it Frument or bread corne, rather than Barley. Likewise in grounds that rest and lie fallow every other yeare, albeit in all mens opinion, they are thought good for to beare Beanes, yet notwithstanding Beanes love better wheresoever they come to be sowed in a ground but newly mucked. Hee that mindeth to sow at the fall of the leafe, must in the month of September before, spread his dung, turne it in with the plough, and so incorporate it with the soile presently after a shower of rain. Even so also, if a man purpose to sow in the Spring, let him in the Winter time dispose of his mucke upon the lands and spread it. The ordinarie proportion is, to lay eighteen tumbrels or loads therof upon every acre. Thrown K abroad it must bee also before it bee dried, and ere you sow, or else so soone as the seed is in the ground, that it may be harrowed in with the corne. But in case this manner of dunging be neglected, it followeth then, before that you doe harrow, to strew the short small dung in manner of dust gathered out of Coupes, Mues, and Bartons, where foule are fed; or else to cast Goats-treddles upon the land, as if you would sow seed, and then with rakes and harrowes to mingle it with the soile.

To the end now that we may determine fully as touching this care also, belonging to dung, every sheepe or goat and such small cattell, should by right yeeld ordinarily in dung one load in *ten daies: and every head of bigger beasts ten load: for unlesse this proportion and quantitie of L mucke bee gathered, plaine it is, that the graunger or maister of Husbandrie, hath not done his part, but failed in littering of his cattell. Some hold opinion, that the best way of mucking a land is, to fold sheepe and such like small cattell thereupon, even in the broad open field; and to this purpose they enclose or imparke them within hurdles. In a word, a ground not dunged at all, groweth to be cold: and againe if it be overmuch dunged, the heart therof is burned away. And therfore the better and safer way is to mucke by little at once and often, rather than to overdoe it at once. The hotter that a soile is, it stands by good reason, that the lesse compost it requireth.

*or rather (after *Columella*) thirtie daies.

Chap. xxiiii.

Of good seed-corne. The manner of sowing ground well. How much seed of every kind of graine an acre will take. The due seasons of Seednes. M

THe best corne or Zea for seed, is of one yeares age, two yeares old is not so good: that of three, is worst of all: for beyond that time, the heart is dead, and such corn will never spurt.

And

A And verily this that is ſaid of one ſort, may bee verified of all kinds. The corne that ſettleth to the bottome of the mowgh in a barne toward the floore, is ever to be reſerved for ſeed. And that muſt needs bee beſt, becauſe it is weightieſt; for therein lieth the goodneſſe: neither is there a better way to diſcerne and diſtinguiſh good corne from other. If you ſee an eare of corn having graines in it here and there ſtaring diſtant aſunder, be ſure the corne is not good for this purpoſe, and therefore it muſt be caſt aſide. The beſt graine looketh reddiſh, and being broken betweene ones teeth, retaineth ſtill the ſame colour within: the worſe corne for ſeed is that, which ſheweth more of the white floure within.

Furthermore, this is certaine, that ſome grounds take more ſeed, and ſome leſſe. And hereby verily doe Husbandmen gather their firſt preſage religiouſly, of a good or bad harveſt: for when B they ſee the ground ſwallow more ſeed than ordinarie, they have a ceremonie to ſay and beleeve, that it is hungrie and hath greedily eaten the ſeed. When a man is to ſow a moiſt ground, good reaſon there is to make the quicker diſpatch, and to doe it betimes, for feare leaſt raine come to rot it. But contrariwiſe, in drie places it is not amiſſe to ſtay the later and attend till raine follow, leaſt by lying long in the earth, and not conceiving for want of moiſture, it looſe the heart, and turne to nothing. Semblably, when a man ſoweth earely, hee muſt beſtow the more ſeed and ſow thicke, becauſe it is long ere it ſwell & be readie to chit. But if he be late in his ſeednes, he ſhould caſt it thin into the ground, for thicke ſowing will choke and kill the ſeed. Moreover, in this feat of ſowing there is a pretie skill and cunning, namely, to carie an even hand, & caſt the ſeed equally throughout the whole field. The hand (in any caſe) of the ſeeds-man muſt agree with his gate C and march: it ought alwaies to goe juſt with his right foot. Herein alſo this would not bee forgotten, That one is more fortunate and hath a more luckie hand than another, and the ſeed will proſper better and yeeld more encreaſe that ſuch a one ſoweth: a hidden ſecret ſurely in Nature, and whereof we can yeeld no ſound reaſon. Over and beſides, this is to be conſidered, That corn comming from a cold ſoile, muſt not be ſowne in a hot ground; nor that which grew in a forward and haſtie field, ought not to be transferred into lateward lands. Howſoever, ſome there bee that have given rule cleane contrarie: howbeit, they have deceived themſelves with all their fooliſh curioſitie.

Now as touching the quantitie of ſeed that muſt be given, according to the varietie both of ground and grain, theſe principles following are to be obſerved. In a reaſonable good ground of D a meane temperature, an acre in ordinarie proportion will ask of common wheat Triticum, or of the fine wheat Siligo, five Modij; of the red wheat Far, or of *Seed [for ſo we call a kind of bread-corne] ten Modij; of Barley ſixe; of Beanes as much as of common wheat, and a fift part or one Modius over; of Vetches twelve; of Cich-peaſe the greater, Cichlings the leſſe, & of Peaſe, three; of Lupines ten; of Lentils three; [as for theſe, folke would have them ſowed together with drie dung] of Ervile ſix; of Silicia or Feni-greeke ſix; of Phaſeols or Kidney beanes foure; of Dradge or Balimong for horſe-provender, twentie; but of Millet and Panicke foure Sextars. Howbeit, herein can be ſet down no juſt proportion, for the ſoil may alter all. And in one word, a fat ground will receive more, and a leane leſſe. Beſides, there doth ariſe a difference another way, in this maner: if it be a maſſie, faſt, chalkie, and moiſt ground, you may beſtow in one acre thereof ſixe Mo- E dij, either of common wheat or of fine wheat Siligo; but in caſe it be looſe and light, naked, drie, and yet in good heart and free, it will aske but foure. For the leaner that a ground is, unleſſe it be ſowne ſcant, and the ſtraw come up alſo thin, the ſhorter eare will the corn have, & the ſame light in the head, and nothing therein. Be the ground rich and fat, yee ſhall ſee out of one root a number of ſtems to ſpring; ſo that although the graine be thin ſowne, yet will it come up thicke, and beare a faire and full eare. And therefore in an Acre of ground you ſhall not doe amiſſe, to keepe a meane betweene foure and ſixe Modij, having reſpect to the nature of the ſoile. And yet ſome there be that would have [of Wheat] five Modij ſowne at all adventure, and neither more nor leſſe, whatſoever the ground be. To conclude, if the ground be ſet with trees, or lying on the ſide of an hill, all is one, as if it were leane, hungrie, and out of heart. And hereto may be redu- F ced that notable Aphoriſme, worthie to bee kept and obſerved as a divine Oracle, Take not too much of a land, weare not out all the fatneſſe, but leave it in ſome heart. Over and above the Rules aforeſaid, *Accius* in his Treatiſe called Praxidicus, commeth in with one more of his owne, Sow your ground (ſaith hee) when the Moone is in any of theſe ſignes, Aries, Gemini, Leo, Libra, and Aquarius. And *Zoroaſtres* hath another Aſtronomicall obſervation

*He meaneth Zea or Spelt.

by

by himselfe, that the Sunne should be entred into Scorpio, and past twelve degrees thereof, the Moone being at the same time in Taurus.

Now followeth the deepe question to be discussed & determined, As touching the fit time and season of sowing corne: which I have put off and deferred to this present place. And this would bee handled and considered upon with exceeding great care and regard; as depending for the most part of Astronomie, and requiring good insight in the course and motion of the Planets, in the order also and influence of the fixed stars: and therefore I purpose to lay abroad the opinions and judgements of auncient writers principally in that behalfe. To begin therefore with *Hesiodus*, esteemed the prince and cheefe of all those that gave precepts of Agriculture; he hath set downe one certaine time of Seednes, to wit, presently after the fall or occultation of the star Vergiliæ, *i.* the Brood-hen: and no marvell, for he wrate that booke of his in Bœotia, a countrey in the very heart of Hellas or Greece, respectively to his owne countreymen and that climate: and in very truth that was the time of sowing there, as we have noted and specified alreadie. The best Authors of name, and who have written most exactly of this argument, are all agreed upon this point and conclusion, saying, That as all foules of the aire and four-footed beasts have their due season of engendring; even so there is a certaine time, when as the earth is as it were in the ruit, and hath a lust to be conceived. The Greekes in generall tearmes have described that season in this wise, namely, When the earth is hote and moist. *Virgil* giveth a precept to sow the common wheat Triticum, and the red bearded wheat Far, after the retrait or departure aforesaid of the Brood-hen Vergiliæ. As for Barley, he would have it cast into the ground between the Æquinox in Autumne, and the Winter Sunne-steed: but Vetches, Kidney beanes, and Lentils, at the setting or going downe of the star Bootes. Which being so, it would do well to digest the rising and falling both of these stars and also of others, into their set daies; to shew (I say) at what fixed time they appeare, and when againe they are hidden. Some there bee who are of opinion, That it is good sowing even before the occultation of the said star Vergiliæ, but in a drie ground only and in hote countries: for so (say they) will the seed swell & mortifie the better; which the naturall humiditie onely of the earth is sufficient to putrifie and prepare so, that when the next raine falleth, it will be readie to spurt and chit within a day. Others attend and wait seven daies after the retrait of the foresaid Brood-hen, for the raine that commonly falleth about that time. There be again that begin to sow in cold regions immediately after the Æquinox in Autumne: but in hot countries they be later in their seednes, for feare that the corne would bee Winter-prowd, and grow overmuch before the cold weather come. But all writers accord herein, that it is not good sowing about the Winter Solstice, when the daies be at the shortest: the reason is very pregnant & apparant, for Winter seed if it be sowne before midwinter, will spurt and spring at the seven-nights end; sow after that time, you shall have it lie in the ground fortie daies before it make any shew of comming up. Many make hast and put their seed into the ground betimes, and this proverbe they have usually in their mouth, *Well may overtimely and hastie sowing oftentimes faile, but late sowing shall ever misse and deceive the Maister*. Contrariwise, others there are of this mind, That it were better staying untill the Spring to doe it well & surely, rather than to sow in a bad Autumne, and put it to the hazard of loosing all. If there bee no remedie therefore, but to take the Spring season, a man must make choice of the time betweene the middest of Februarie [at what time as the West wind Favonius doth rise and begin to blow] and the Æquinox in March. Some have no regard at all to the constitution and figure of the heavens in this case; thinking the rising and falling of starres, the course and motions of cœlestiall bodies, to be frivolous matters & nothing pertinent to this purpose, but content themselves onely with observing the cardinall seasons of the yeare, and some other times, in a generalitie. In the Spring (say they) sow Lineseed, Otes, and Poppies, and so hold on unto the festivall holydaies of *Minerva*, called Quinquatrus; like as at this day throughout all Lombardie and beyond the Po, they goe by no other rule. As for Beanes, and the fine wheat Siligo, put them into the ground in the moneth of November. Let the Winter red wheat Far take his fortune and bee enterred, from the end of September, untill the middest or fifteenth day of October. Others goe beyond that day, and continue their Seednes unto the Calends or first day of November. Now, as these men have no regard at all to the speculation of Nature, and the course of the stars; so the other beforenamed, are given too much thereto, and rapt they are so high among the stars and planets, that their owne eies bee dazeled therewith: and besides, their subtilties and quiddities doe blind others, considering that the practise

A &tiſe of theſe matters muſt paſſe through the hands of ruſticall peaſants, who are ſo far off from conceiving Aſtronomie, & the conſtellations above, that they know not one letter of the book, nor never learned their A.B.C. Howbeit, wee cannot chuſe but confeſſe, that the true reaſon and knowledge of Agriculture, dependeth principally upon the obſervation of the order in heavenly bodies: for *Virgil* ſaith very well, That before all other things, a husbandman ſhould be skilfull in the winds, and have the foreknowledge and prediction of them: alſo to have an in-ſight into the nature and influence of the ſtarres: and in one word, to obſerve both the one and the other, as well as the Sailers and mariners at ſea. Certes, a hard peece of worke it is, and infi-nite; and ſmall hope I have that ever I ſhall be able to drive into their heads that are ſo ignorant and groſſe of conceit, this high learning and heavenly divinitie, as touching the Planets, the
B fixed Starres, togither with the reaſon of their orderly motions and cœleſtiall powers: howbeit conſidering the great profit that may ariſe and grow thereupon to mankind, I will caſt a proffer and give the attempt to make ploughmen Aſtrologers, or Aſtronomers at leaſtwiſe, if it may be. But firſt my purpoſe is, to lay open before their eies certaine difficulties (which troubled al-ſo ſome of the auncient writers, and thoſe not unskilfull in this part of Philoſophie) as touching the courſe and order of the Starres: which being not only diſcovered, but alſo aſſoiled and clee-red, their minds with better contentment may goe from the contemplation of heaven to the reſt of Natures workes, and ſee thoſe things by the effects, which they could not poſſibly foreſee by their cauſes.

C

Chap. xxv.

*The times and ſeaſons of the riſing and ſetting of Starres, digeſted into order, as well by * day as night.*

* i. Evening and morning.

IN the firſt place, there offereth it ſelfe unto us one difficultie above the reſt, ſo intricate, as hardly is it poſſible to reſolve upon it; namely, as touching the very daies of the yeare, how many they be in number; and the revolution of the Sunne, how and when he returneth again to the ſame point? For whereas ſome doe account the Solare yeere to be 365 daies juſt; others adde thereunto certaine quadrants or fourth parts of day and night togither, to wit, ſix houres every yeere; which being put togither, make the fourth yeare Biſſextile or Leape yeare: ſo as
D it is in manner impoſſible to aſſigne the certaine daies and houres of the Starres apparition or occultation. Over and beſides, how obſcure, how darke and confuſed all this matter is, appea-reth manifeſtly herein, That the times and ſeaſons of the yeare prefixed by auncient writers, fall not out accordingly; and namely, in the obſervation of the winter ſeaſons and tempeſts by them ſet downe: for one while you ſhall have them to prevent and come ſooner by many daies than ordinarie, which the Greeks call προχειμάζειν; another while to draw back and come later, which they tearme ἐπιχειμάζειν. Yea and for the moſt part this hapneth, by reaſon that the influence of the cœleſtiall ſtars reacheth ſooner or later to the earth, and thereafter ſheweth the effects: ſo as the common people, when they ſee the ſaid foule weather paſt, and all cleare and faire again, ſay then and not before, That ſuch a Planet or Star hath perfourmed his courſe, and is upon
E the point of his Tropicke or returne againe. Moreover, conſidering that all theſe occurrents de-pend much upon thoſe ſtarres which bee ſet and fixed in the firmament, yet ſhall yee have the Planets play their parts beſides, which by their motions and operations, worke no ſmall effects upon the earth, as we have ſhewed before; and namely, cauſing between-whiles ſtorms of raine and haile out of courſe: no marveile then, if they trouble our heads & put us out of our account, interrupting that order of the fixed Stars, upon which we conceived and built our hope of the faire ſeaſon, and our new ſpring. And herein, not wee onely that be men faile of our reckoning, but other living creatures alſo be deceived, which naturally have much more ſenſe & underſtan-ding of theſe workes of Nature, than wee, in as much as their whole life ſtandeth thereupon: for the Summer birds (as great fore-ſight as they have of ſuch ſeaſons and tempeſts) are over-taken
F and killed by Winter froſts and cold, comming ſooner than they looked for, and before they be gone out of the countrey: as alſo winter-foules miſcarrie by the hote weather of ſummer, con-tinuing longer than it was woont, and holding on ſtill after they be come. Hereupon it is, that *Virgil* expreſſely willeth us to learne throughly the skill of the wandering Stars or Planets alſo, and principally giveth us warning to marke the courſe of that cold Planet Saturne.

But

But now to come more particularly to the signes which fore-token the Spring: some there be that goe by the Butterflie, and hold that their brood comming abroad, is an assured token that the Spring is come, for that these creatures so feeble, are not able to abide any cold: howbeit, this was checked that very yeare, wherein I wrote this Booke or Historie of Natures worke: for seen it was and marked very well, that three flights of them one after another were killed with the cold weather that surprised them thrice, for that they were stirring too earely, and came abroad over-soone. Yea, and the very birds who are our guests in warme weather, visited us five or sixe daies before Februarie, and made a goodly shew of a timely Spring, putting us in good hope, that all cold weather was gone: howbeit, there ensued a most bitter after-winter streight upon it, that nipped and killed them in manner every one. Hard and doubtfull therefore is the case, that whereas first and principally we were to fetch our rule from the heavens to guide and direct us, then afterwards we should be driven to goe by other signes and arguments meere conjecturall. But above all, the cause of this incertitude and difficultie, is partly the convexitie of the cope of heaven, and partly the diverse climates observed in the globe of the earth: by meanes whereof, one and the same star seemeth to rise at sundrie times in diverse countries, and appeareth sooner or later to some than to others: and therefore the cause depending thereupon, is not in all places of like validitie, nor sheweth the same effects alwaies at the same times. And yet there is one difficultie more, arising from those Authors who writing of one and the same thing, have delivered diverse opinions, according to the sundrie climates wherein they were, at what time as they observed the figure and constitution of the heavens. Now were there of these Astronomers three Sects, to wit, the Chalcidians, the Ægyptians, and the Greekes. To which there may bee added a fourth, which among us *Cæsar* the Dictatour first erected: who observing the course of the Sun, and taking with him the advise also of *Sosigenes* (a learned Mathematician and skilfull Astronomer in his time) reduced the yeare unto the said revolution. Howbeit, in this calculation of his, there was found an error, and short he came of the marke which he aimed at, by reason that there was no bissextile or leape yeare by him inserted, but after twelve yeares. Now, when it was observed by this reckoning, that the Sunne had performed his revolution sooner than the year turned about, which before was wont to prevent the course of the Sunne, this error was reformed; and after every fourth yeare expired, came about the Bissextile aforesaid, and made all streight. *Sosigenes* also himselfe, albeit hee were reputed a more curious and exquisite Mathematician than the rest, yet in three severall treatises that he made, retracting or correcting that in one booke which he had set downe in another, seemed evermore to write doubtfully, and left the thing in as great ambiguitie and undetermined as he found it. As for these writers, whose names I have alleadged and prefixed in the front of this present volume now in hand, they have likewise delivered their opinions as touching this point: but hardly shall you find two of them in one & the same mind. Lesse marvell then, if the rest have varied one from another, who may pretend for their excuse the diverse tracts and climates wherein they wrote. As for those who lived in the same region, and yet wrote contrarie, I cannot tell what to make of them. Howbeit, I care not much to set downe one example of their discord and disagreement. *Hesiodus* the Poet (for under his name also there goeth a Treatise of Astrologie) hath put downe in writing the matutine setting of the star Vergiliæ (which is the occultation thereof by the raies and beames of the Sunne toward morning) to begin ordinarily upon the day of the Æquinox in Autumne. *Thales* the Milesian saith, That it falleth out upon the five and twentieth day after the said Æquinox. *Anaximander* writeth, That it is nine and twentie daies after: and finally, *Euctemon* hath noted the eight and fortieth day following the said Æquinox, for the retrait or occultation of the forenamed Brood-hen star Vergiliæ. Loe what varietie there is among these deepe clearkes and great Astrologers.

For mine owne part I hold well with *Cæsars* calculation, and will keepe me to his observations as neare as I can, for that the same will fit best with our meridian here in all Italie. Yet nevertheless I will not sticke to set downe the opinions of others, because my desseigne tendeth not to one particular place alone, but I purpose and professe to represent unto the Reader the universall Historie of Nature, and the whole world. But my meaning is not to rehearse the names of everie Author one by one (for that were a tedious peece of worke, and would require a long traine of superfluous words) but onely to put downe the regions of every climate, and that as succinctly and breefely as I can. Where, by the way I must advertise the Readers, that they remember well this one thing, how when for brevities sake I nominate the land or region Attica, they must withall

A all underſtand the Iſlands Cyclades: when I name Macedonie, I comprehend therewith Magneſia and Thracia: under Ægypt I compriſe Phœnice, Cyprus, and Cilicia: under Bœotia, the regions of Locris and Phocis: and in one word, alwaies the tracts and countries adjacent and confining together. *Item*, In making mention of Helleſpontus onely, I take together with it Cherſoneſus, and all the continent or maine firme land, as farre as to the mountaine Athos: in naming Ionia, I reckon alſo Aſia the leſſe or Natolia, and the Iſles thereto adjoining: under the name of Peloponneſus I count Achaia, and other lands in that climate lying to the Weſt. Finally, the Chaldæans ſhall make demonſtration, as in a map, of Aſſyria and Babylonia. As for Affricke or Barbarie, Spaine, and Fraunce, marvell not if I paſſe them over in ſilence: for there is not a writer in all theſe nations, one or other, who hath either obſerved or penned down the time when theſe
B fixed ſtars riſe or fall. Howbeit, it were no hard matter to come to the diſtinct knowledge thereof in thoſe climates and countries alſo, by the meridionall lines and conformitie of the Parallele circles, which I digeſted orderly in the ſixt booke of this worke. For thereby a man may underſtand the uniforme agreement in the poſition of the heaven, not onely for whole climates and countries, but alſo for every ſeverall cittie by it ſelfe, under the ſame meridian or Parallele: following ſtill the knowne paralleles of theſe regions which we have named, and taking withall the elevation of any circle pertaining to every ſuch land as a man will ſeeke, and reſpective to the riſing of the ſtars, according to the equall ſhaddowes, throughout all thoſe parallele circles. Moreover, it ought to be ſhewed and declared that ordinarily the times and ſeaſons have their temperature and influence every foure yeares together: and thoſe lightly returne the ſame without any great
C alteration, from yeare to yeare duly according to the courſe and recourſe of the Sunne, during that tearme: marie in eight yeares they ſenſibly doe encreaſe, namely by what time as the Moone is in her hundreth revolution.

Now all the knowledge of the heavens pertinent to Agriculture, ſtandeth principally upon three ſorts of obſervations, to wit, The riſing of the fixed ſtars; the ſetting of the ſame; & the four cardinall points, to wit, of the two Tropickes or Sunſteads, and the double Æquinox, which devide the whole yeare into foure quarters and notable ſeaſons. Where note, that the riſe and fall of thoſe ſtars beforeſaid is to be conſidered and taken two waies. For firſt when the Sunne approcheth unto them with his beames, they be hidden and no more ſeene: likewiſe, after his departure they ſhew themſelves againe: and as the one, me thinkes, might have been more aptly called an Apparition than a Riſing, ſo wee ſhould have framed our tongue in common ſpeech to
D have tearmed the other Occultation, rather than Setting. Secondly, according as the ſaid ſtars begin either to ſhine out or bee hidden in the morning before the Sun be up, or at evening after the Sunne is ſet, they be ſaid to riſe and goe downe; and thereupon are named * Matutine or Veſpertine, Orientall or Occidentall, according as the one or the other happeneth unto them in the twy-light, morning or evening. Certes, when they are to be ſeene Matutine or Veſpertine, it muſt be at the leaſt three quarters of an houre either before the Sunne is up, or after he is downe: for within that ſpace there is no looking after them. Moreover, ſome ſtars there bee that riſe and fall twice. But take this with you, ere I proceed further, that all this ſpeech of mine is to bee underſtood of the fixed ſtars, which beeing ſettled faſt in the skie, move not of themſelves: and in no
E wiſe, of the Planets.

As touching the foure cardinall ſeaſons of the yeare, whereby it is devided into foure quarters: limitted they be according to the light more or leſſe, and as the daies be longer or ſhorter: for ſo ſoone as the Winter Sunneſtead is paſt, the daies do lengthen; and by that time that ninetie daies and three houres be gone and paſt, they be juſt as long as the night, & this is called the Spring Æquinox. From which very day for ninetie three daies together & twelve houres, namely, unto the Summer Sunneſtead, the daies be longer than the night, and ſo continue untill the Autumne Æquinox, at what time the daies and nights be equall againe; from which time they ſhorten and decreaſe as they grew in length & encreaſed before, for eightie nine daies together, and three houres, untill the foreſaid Winter Sunneſtead, when as the daies bee ſhorteſt. And
F here you muſt note, that in all theſe additions of houres at this preſent, I meane thoſe onely that be Æquinoctiall, which devide the day and night equally in foure and twentie parts, and not the common houres of any other day artificiall whatſoever. Alſo take this with you, that all theſe diſtinctions and diviſions of the foure ſeaſons, begin alwaies in the eight degree of thoſe ſignes under which the Sunne is at thoſe times: as for example, The winter Sunneſtead or ſhorteſt day

of

* ortus & occaſus Heliacus.

* ortus & occaſus Coſmicus.

of the yeare, called in Latine Bruma, falleth out in the eight degree of Capricorn, which lightly is upon the *18 day before the Calends of Ianuarie. The Spring Æquinox, when nights and daies be of a length in the eight degree of Aries. Semblably, the Summer Sunneſtead or longeſt day of the yeare, is alwaies when the Sunne is entred eight degrees into Cancer. Laſt of all, the other Æquinox in Autumn, when day and night is equall, lighteth upon the eight degree of Libra. And certes, ſeldome or never ſhall you ſee any of theſe foure daies without evident ſhew of ſome notable change in the weather. Againe, theſe cardinall ſeaſons or quarters of the year, admit alſo their ſub-diviſions ſtill into ſome notable and ſpeciall times, obſerved in *the very middle ſpace from the one and the other. For betweene the Summer Sunneſtead and the Æquinox in Autumne juſt upon the five and fortie day after the ſame Sunneſtead, the retrait or ſetting of the ſtar called in Latine Fidicula, *i.* the Harpe, beginneth the Autumne. Likewiſe, betweene that Æquinox and the Winter Sunneſteed or ſhorteſt day of the yeare, the Matutine or morning fall of the ſtar Vergiliæ, upon the three and fortieth day after the ſaid Æquinox, ſetteth the beginning of the Winter. So likewiſe upon the five and fortieth day betweene mid-winter or the ſhorteſt day of the yeare and the Spring Æquinox, the blowing of the Weſterne wind Favonius beginneth the Spring. And laſt of all, upon the three and fortieth day from the ſaid Æquinox toward the Summer Sunneſteed, at what time as the ſtar Vergiliæ doth riſe Matutine, begins the Summer.

* 15 of December.

*Called *Intervalla* afterward in this chapter: and containe much about ſix weekes.

But to returne againe to our Agriculture, begin I will at the Seednes of Frument corne, that is to ſay, at the riſing or apparition of the ſtar Vergiliæ in the morning, without making any mention at all of other petie ſtars, for to interrupt the traine and courſe of our Treatiſe, and to heape difficulties one upon another; conſidering that the fierce and vehement ſtar Orion is departed a great way off from us by that time. I am not ignorant, that many fall to ſowing corne long before, & prevent this time, beginning their Seednes within eleven daies after the Æquinox in Autumne, namely, at the approch and riſing of the ſtar Corona, *i.* the Crowne: promiſing themſelves aſſuredly to have raine upon it for certaine daies together. *Xenophon* would not have us begin to ſow before that God give us ſome good ſigne and token ſo to doe. And *Cicero* our countreyman expounding this ſaying of *Xenophon*, taketh the raines in *November to bee that ſigne which God giveth: whereas in very deed the true and undoubted rule to goe by, is to make no great haſt into the field for to ſow, before the leaves begin to fall; and this every man holdeth to be at the very occultation or retrait of the ſtar Vergiliæ. Some as we have beforeſaid, have obſerved it about three daies before the Ides of November: and for that the ſaid ſtar is ſo evident in the heaven, and eaſieſt to be knowne of all others, called it is by the name of a garment hanging out at a Brokers ſhop. And therefore by the fall or retrait thereof, as many men as have a care and fore-caſt to prevent the covetous dealing of the merchant Taylor (as commonly ſuch occupiers lie in the wind for gaine) gueſſe aforehand what Winter will follow: for if it bee a cloudie ſeaſon when this ſtar doth retire, it threateneth a rainie Winter, and then theſe merchants preſently raiſe the price of the clokes which they ſell: but if the weather be faire and cleare at the ſetting or occultation thereof, it ſheweth a pinching and hard Winter toward: and then they hold other garments alſo very deere. But this Husbandman of ours, who cannot skill at all to look up and to learne the order and poſition of the heavens, muſt ſpie this ſigne of Winter among his briers and brambles, hee muſt find (I ſay) the time of Seednes as hee lookes downeward upon the ground, namely, when hee ſees the leaves fallen and lying under his feet. Thus may a man know the temperature of the climate, and the yeare, according as hee perceiveth the leaves bee fallen more at one time than another, ſooner alſo in ſome places, and later elſewhere. For as the ſeaſon is forward or late, as the climate alſo is affected, ſo are the trees knowne to ſhead their leaves accordingly. And in very truth, this is the trueſt ſigne of all others. And the beſt thing therein is this, that being generall throughout the whole world, and yet peculiar to each place, it never faileth. A man might make a wonder hereat, if hee did not ſee and remember, that upon the very ſhoreſt day in the year, even in midwinter when the Sun is entred Capricorn, the hearb Peniroyall uſeth of it ſelfe to floure, either ſet in chaplets, or otherwiſe hanging and ſticking in the ſhambles; ſo willing is Nature to ſhew us all her ſecrets, and to keepe nothing hidden from us. For loe what ſignes and markes ſhe hath given us, whereby we might know the time of ſowing corn: and verely, this is the onely true and infallible direction, grounded upon approoved experience, and the ſame ſhewed firſt by dame Nature; for by this dropping and fall of leaves, what doth ſhe elſe

*Called by our Husbandmen Gore-moone.

teach

A teach and counſell us but to have our eie upon the ground, and to caſt ſeed into it: aſſuring us of a certaine ſupplie of dung and compoſt by overſpreading the ground with ſuch mullock, that ſoone will turne into mucke? what doth ſhee elſe (I ſay) but by covering the earth in this manner with leaves, ſhew how carefull ſhe is to defend it againſt hard froſts and pinching winds, and in one word, thereby putteth us in mind to make the more haſt and get our ſeed under mould? As for *Varro*, he is of the ſame opinion for Beanes alſo, and willeth us to obſerve the ſaid rule in ſowing them at the fall of the leaſe. Others are of this mind, that the beſt ſowing thereof is in the full Moone. But for Lentils, we ſhould attend the laſt quarter toward the chaunge, to wit, from the five and twentieth day to the thirtieth. Alſo, that Vetches muſt be ſowed at the ſaid age of the Moone: for in ſo doing we ſhall preſerve ſuch pulſe from the naked ſnaile. Howbeit, ſome others B there bee, that indeed would have theſe kinds of pulſe to bee ſowed at this time of the yeare and age of the Moone for provender and forrage to be ſpent out of hand; marie if wee would keepe the ſame for ſeed, then we ſhould take the ſeaſon of the Spring.

Beſides thoſe rules and tokens above ſpecified, there is one more, which Nature upon an extraordinarie providence over us, hath preſented unto our eies after a wonderfull manner, the which *Cicero* expreſſeth in theſe tearmes:

Iam vero ſemper viridis, ſemperq́; gravata
Lentiſcus, triplici ſolita eſt grandeſcere fœtu:
Ter fruges fundens, tria tempora monſtrat arandi.

C
The Maſticke tree,
All times you ſee,
Is clad and richly dight,
With greene in cold,
With fruit three-fold,
A faire and goodly ſight.

As ſhee therefore,
By Natures lore,
Doth fruit thrice yearely beare:
So thereby wee,
Know ſeaſons three,
Our land to duly eare.

Of which three ſeaſons, one is appropriate for the ſowing both of Poppey and alſo of Lineſeed. But ſince I have named Poppey, I will tell you what *Cato* ſaith as touching the ſowing thereof: Vpon that land (quoth hee) where you meane to ſow Poppey, burne your winding rods; the D cuttings alſo and twigs of vines, which remained and were left at the pruning time; when you have burnt them, ſow wild Poppey ſeed in the place; for it is a ſingular medicine beeing boiled up to a ſyrrup in honey, for to cure the maladies incident to the chawes and throat. As for the garden Poppey, it hath an excellent and effectuall vertue to procure ſleepe. And thus much concerning Winter corne and the Seednes thereof.

Chap. xxvi.

A ſummarie and recapitulation of all points of Husbandrie: and to what outworkes in the field a Husbandman ſhould be employed, reſpectively to every moneth of the yeare.

E

BVt now to compriſe under a certaine brieſe Abridgement and Breviarie, all points of Huſbandrie togither: At the ſame time before-named, [to wit, at the fall of the leaſe] it is good alſo to lay dung unto the roots of trees; likewiſe to mould and banke vines: and one workman is ſufficient for one acre. Alſo, where the nature of the ground will bear it, the husbandman ſhall not doe amiſſe to disbraunch and lop his tree-groves, to prune his vineyards, to hollow the ground of his ſeminaries and nource-plots with mattocke and ſpade, & dreſſe the mould light; to open his ſluces and trenches for water-courſe, to drive and draine it out of the fields; and finally, to waſh his wine-preſſes firſt, and then to ſhut and lay them up drie and ſafe. *Item*, after the Calends or firſt day of Novembre, let him ſet no Hens upon egs untill the winter Sunſtead F be paſt: when that time is come and gone, ſet Hens hardly, and let them couve thirteene egs; marry better it were all ſummer long to put ſo many under them: for in winter fewer will ſerve; howbeit never under nine.

Democritus giveth a gueſſe what Winter we ſhall have, by the very day of the Winter Sunſtead: for looke what weather is then and for three daies about it, the like winter (he ſuppoſeth) will

will enſue. Semblably, for the Summer, hee goeth by the other Sunſtead or longeſt day of the yeare: and yet commonly for a fortnight about the ſhorteſt day in the yeare, (to wit, during the time that the foules Halcyones doe lay, couve, and hatch their eggs in the ſea) the winds lie and the weather is more mild and temperate. But as well by theſe ſignes as all other whatſoever, we muſt gueſſe the influences and effects of the Stars, according to the event, within ſome latitude of time; and not ſo precisely to limit and tie them alwaies to certaine daies prefixed, as if they were bound to make their appearance peremptorily in court, juſt then, and faile not.

Moreover, in mid-winter, meddle not at all with vines, touch them not in any hand, but let them alone. What then is the Husbandman to doe? Mary then (quoth *Hyginus*) after ſeven daies be once paſt from the Sunſtead, he is to refine his wines from the lees and let them ſettle, yea and to poure them out of one veſſell into another, provided withall, that the moone be a quarter old. Alſo about that ſeaſon (to wit, when the Sunne is in Capricorne) it is not amiſſe to plant Cherritrees, and ſet their ſtones: then is it good alſo to give oxen Maſt to feed them; and one Modius or pecke is ſufficient to ſerve a yoke at one refection: allow them more at once, you glut them and fill them full of diſeaſes: but at what time ſoever you make them this allowance, unleſſe you hold on thirtie daies togither, (folke ſay) they will be ſcabbed and mangie when the ſpring commeth, that you will repent for cutting them ſo ſhort. As for felling timber trees, this was the proper ſeaſon which we appointed heretofore. All other winter workes for an husbandman to be buſied in, would be done in the night for the moſt part: ſit up hee muſt late, and riſe betimes by candle-light, and watch hardly about them, for that the nights bee ſo much longer than the daies: let him a Gods name, find himſelfe occupied with making wicker baskets & hampers, winding of hurdles, and twiſting of frailes and paniers: let him thwite torch-wood taperwiſe for linkes and lights: and when he hath by day-light made readie and prepared thirtie poles or railes for vines to run on, and ſixtie ſtakes or props to ſupport them, hee may in the evening make five poles or pearches, and ten forkes or ſupporters; and likewiſe as many early in the morning before day-light.

But now to come to *Cæſars* reckoning of the times and digeſtion of the cœleſtiall ſigns: theſe be the notable ſtarres which are ſignificant and doe rule that quarter which is betweene the winter Sunſtead and the riſing of the Weſterne wind Favonius. Vpon the third day (ſaith hee) before the Calends of Ianuarie, which is the thirtieth day of December, the Dog-ſtarre goeth downe in the morning: upon which day in Attica and the whole tract thereto adjoyning, the ſtarre Aquila, [*i.* the Ægle] ſetteth (by report) in the evening, and looſeth her light. The even before the Nones of Ianuarie, *i.* the fourth day thereof by *Cæſars* account [I meane for the meridian of Italie] the Dolphin ſtarre riſeth in the morning, and the morrow after, the Harp-ſtarre Fidicula: upon which day, in Ægypt, the ſtarre Sagitta, [*i.* the Arrow] ſetteth in the evening. *Item*, from that time to the ſixth day before the Ides of Ianuarie, [*i.* the eigth day of that month] when as the ſame Dolphin goeth downe or retireth out of ſight in the evening, uſually we have in Italy continuall froſt and winter weather: as alſo when the ſunne is perceived to enter into Aquarius, which ordinarily falleth out ſixteen daies before the Calends of Februarie, [*i.* the ſeventeenth of Ianuarie.] As for the cleare and bright ſtarre called the Star-Royall, appearing in the breaſt of the ſigne Leo, *Tubero* mine authour ſaith, that eight daies before the Calends of Februarie, to wit, the 25 day of Ianuarie, it goeth out of our ſight in the morning: alſo over night before the Nones of Februarie, [*i.* the fourth day of the ſame moneth] the Harpe-ſtarre Fidicula goeth downe, and is no more ſeene. Toward the latter end of this quarter, it is good and neceſſarie to dig and turne up freſh mould with mattocke and ſpade againſt the time that roſes or vines ſhall be ſet, whereſoever the temperature of the climat will beare it: and for an acre of ſuch worke, ſixtie labourers in a day are ſufficient to doe it well. At which time alſo, old trenches and ditches would be ſcoured or new made. For morning worke before day, the husbandman muſt looke to his yron tooles, that they be ground, whetted, and ſharpned; that their ſteales, helves, or handles, be fitted and ſet to their heads; that ſhaken tubs, barrels, and ſuch like veſſels, be new cowped, bound with hoops, and calfretted; that their ſtaves be well ſcraped and cleanſed, or elſe new ſet into them. And thus much of this Winter quarter, as farre as to the comming of the Weſterne wind Favonius.

Now as touching the entrance of the new Spring, which is from the riſing of the ſaid wind to the Æquinox in March: *Cæſar* ſetteth downe for it the time, which for three daies togither is variable

A tiable and inconſtant weather, to wit, ſeventeen daies before the Calends of March, which is the thirteenth of Februarie. Alſo eight daies before the ſaid Calends, which is the 22 of Februarie, upon the ſight of the * firſt Swallow; and the morrow after, upon which day the ſtar Arcturus riſeth Veſpertine, *i.* appeareth in the evening. In like manner, *Cæſar* hath obſerved, that the ſaid wind hath begun to blow three daies before the Nones of March, to wit, the fifth of March, juſt with the riſing or apparition of the Crab-ſtar Cancer. Howbeit moſt writers of Aſtrologie do aſſigne the firſt entrie of the Spring and the comming of this wind, to the eigth day before the Ides of March, which is the eigth of that moneth, when as the ſtar Vindemiator, *id eſt*, the Grape-gatherer, beginneth to appeare: at what time alſo the Northerly ſtarre called the Fiſh, doth ariſe: upon the morrow whereof, to wit, the ninth day, the great ſtarre Orion ſheweth

B himſelfe in his likeneſſe. In the region Attica where Athens ſtandeth, it is obſerved, that the ſtar Milvus, *i.* the Kite or Glede, appeareth then in that climat. *Cæſar* moreover noted, that the ſtar Scorpio riſeth upon the * Ides of March, thoſe fatall Ides (I ſay) that were ſo unfortunate unto himſelfe: alſo, that upon the 15 Calends of Aprill, which is the 18 of March, the foreſaid Milvus, *i.* the Kite-ſtar, appeareth to them in Italie: and three daies after, the Horſe-ſtar is hidden toward the morning. This is the freſheſt, the moſt buſie and ſtirring Intervall or time betweene, that husbandmen have; and yet therein be they ofteneſt deceived, for commonly called they are not to their worke the very ſame day that the wind Favonius ſhould by courſe blow, but when it begins to be aloft; which is a point to be conſidered and obſerved with right great regard: for if a man would take heed and marke well, this is that moneth wherein God giveth us that ſure

C and infallible ſigne which never faileth. Now from what quarter or coaſt this wind doth blow, and which way it commeth, albeit I have ſhewed alreadie in the ſecond booke of this ſtorie, yet will I ſpeake thereof more diſtinctly and exactly anon; meane while, from that day (whenſoever it hapneth) on which that wind beginneth to blow, come it ſooner (as namely, when it is a timely and forward Spring) or come it later, if it be a long winter (for it is not alwaies the * ſixth day juſt before the Ides of Februarie) from that time, I ſay, muſt the ruſticall paiſants fettle to their worke, then are they to goe about a world of toileſome labour, then muſt they plie their buſineſſe and make ſpeed to diſpatch thoſe things firſt that may not be deferred and put off: then or never would their ſummer three-month corne be ſown, their vines be pruned in manner aboveſaid, their Olive trees dreſſed and trimmed accordingly: Apple-tree ſtockes and ſuch like fruits,

D are then to be ſet and graffed; then is the time to be digging & delving in vineyards, to remove ſome young plants out of their ſeminaries, and digeſt them in order as they muſt grow, and to ſupply their plots with new ſeeds and imps: Canes and Reeds, Willows and Oſiers, Broome alſo would then ſome be ſet, and others cut downe: Elmes, Poplars, and Plaue trees, ought then to be planted, as hath been ſaid before: then is the meeteſt ſeaſon to cleanſe the corne fields, to ſarcle and rid the winter-corne from weeds, and eſpecially the bearded red wheat Far: in doing whereof, this muſt be the certein rule to direct the husbandman, namely, when the root of the ſaid Far begins to have four ſtrings or threeds to it. As for Beans, they muſt not be medled withall in that order, before they have put out three leaves; and then verily they muſt be lightly gone over, and cleanſed rather with a light hooke, than otherwiſe. When Beanes be blowmed, for fif-

E teen daies togither they ought not to be touched. As touching Barley, it would not be *ſarcled or raked, but in a drie ground, and when the weather holds up. Order the matter ſo, that by the Æquinox in March, all your pruning and binding of vines be done and finiſhed. If it be a vineyard, foure men are enough to cut and tie an acre of vines: and if they grow to trees, one good workeman will be able to overcome fifteene trees in one day. This is the very time moreover of gardening and dreſſing roſe-plots or roſiers [whereof I meane to treat apart and ſeverally in the booke next following] of drawing vinets alſo, knots, and fine ſtorie workes in gardens: this is the only ſeaſon to make trenches and ditches: the ground alſo would now be broken up for a fallow againſt the next yeare, according to the mind and counſell of *Virgil* eſpecially, to the end that the Sunne might throughly parch and concoct the clots, and thereby make it more mellow for the Seednes. Howbeit I doe like better of their opinion (as the more thriftie and profitable of the twaine) who adviſe to plough no ground in the mids of Spring, but that which is of a mean temperature: for if it be rich and fat, preſently the weeds will over-grow & take up the ſeams and furrowes: againe, ſay it be poore and leane, the hot weather comming ſo ſoone upon the fallow, will dry it too faſt, ſpend all the moiſture, and kill the heart thereof, which ſhould maintaine the

* Whereupon the ſaid wind *Favonius*, is called *chelidonias* and *Orneathias*.

* 13 of March: for upon that day was hee murdred.

* *i.* the ſeventh of Februarie.

* *Sarrire.*

ſeed to be ſowne therein. *Cato* ſetteth downe the Husbandmens worke for the Spring time, in theſe tearmes: Caſt trenches (quoth he) couch young braunches, and interre them for ſeminaries by way of propagation, in caſe the ground bee ſtrong, fat, and moiſt withall. Lay dung to your Elmes, Fig trees, Apple trees, and others of like fruit; to Olives alſo doe the like: neither forget to manure and muck your medow grounds; but all in a drie moone & about the change. Such fields as are not well watered, defend them as well as you can from the Weſt wind Favonius: downe with ſuperfluous weeds and rid them out of the way; but and if they be hurtfull beſides, plucke them up by the roots. Cleanſe Fig trees betweene, where need is: make new ſeminaries and nource-gardens, and repaire the old. All this would be done before the vine begin to floure. Moreover, ſo ſoone as the Peare tree ſheweth bloſſome, begin to plough leane, light, and ſandie grounds; but afterwards you may be bold to goe in hand with the fatteſt, faſteſt, and moſt wateriſh that be: let theſe (I ſay) be laſt tilled. And to conclude briefly, as touching this time of ploughing, let this be the marke and rule to guide you; namely, to ſet unto your worke and put plough in ground, when you ſee either the Lentiske tree to ſhew the hope of her firſt fruit, or the Peare tree to bloſſome and have a white head. There would bee alſo a third tilth or cruſhing of the ground, obſerved by the ſea-onyon Squilla, among thoſe hearbs which have bulbous roots: likewiſe among floures, by the Daffodill. For as theſe do bloume thrice, ſo they point unto three times of ploughing. For by their firſt bloſſome, they ſhew the firſt tilth or breaking up of the ground, by their middle flouring, the ſecond fallow or ſtirring: and by their third, the laſt cruſhing. Wherein a man may ſee the wonderfull chaine (as it were) that linketh this world together, whereby all creatures therein contained, give lightſome tokens and ſignes one to another. And this may bee obſerved alſo in the yvie (a thing verily not of the leaſt and laſt regard) which muſt not in any caſe be touched or meddled withall, ſo long as Beanes bee in their bloume; for that is the very time and meane to hurt it moſt and kill it for ever. Now, as ſome plants there bee that ſerve for ſignes unto others, ſo there be other that carie about them their owne marke, as for example, the Fig-trees: for looke when they put forth in the head a few leaves hollow, and with the edges turning upward in manner of a ſawcer or goblet, be ſure that is the right ſeaſon & beſt time to plant them.

Now is it time to returne from whence wee were digreſſed, namely, to the calculation of the principall times and quarters of the yeares, and namely, to the Spring Æquinox, which ſeemeth to be come and gone alwaies by the 8 day before the Calends of Aprill, to wit, the 25 of March. From which day forward, by *Cæſars* calculation, the Calends of Aprill, to wit, the firſt day of Aprill are ſignificant, as whereupon the ſtar Vergiliæ, *i.* the Brood-hen, beginneth to riſe or appeare in the morning; howſoever in Attica and the parts thereabout, the ſaid ſtar ſeemeth to ſet or be hidden in the evening upon the third day before the Nones of Aprill, *i.* the third of that month: and the morrow after, the ſame ſtarre doth the like in Bœotia. Howbeit, according to *Cæſars* Ephemerides for Italie, and the Chaldæans for Aſſyria and Babylon, the foreſaid ſtarre goeth downe or retireth out of ſight upon the Nones of Aprill, *i.* the fift of Aprill: at what time in Ægypt, as well *Orion* as his Sword [both ſtars in heaven ſo called] begin to be hidden. After *Cæſars* reckoning, the ſigne or ſtar Libra ſetteth in Italy the ſixt day before the Ides of Aprill, which is the eigth of the ſame moneth, and ſignifieth ſtore of raine. The fourteenth day before the Calends of May, which is the eighteenth of Aprill, the * Suculæ (a violent and troubleſome ſtar, cauſing ſtormes and tempeſts raging both on land and ſea) goe downe at evening in Ægypt; but in Attica two daies before, to wit, the ſixteenth of Aprill: and in Italy, by *Cæſars* booke, the day betweene both; that is to ſay, the ſeventeenth day of the ſaid moneth; the influence whereof is effectuall for three daies togither: but in Aſſyria it falleth out twelve daies before the Calends of May, *i.* the ninteenth of Aprill. This is the ſtar or ſigne in the heavens, commonly named Palilicium; becauſe the eleventh day before the Calends of May, *i.* the 20 of Aprill, the very birthday and memoriall feaſt of Rome cities foundation (on which day the weather commonly cleareth up and is faire againe) gave folke a notable occaſion of obſerving the ſaid ſtars retreat or occultation: howſoever the Greekes have tearmed them * Hyades, by reaſon of the rain and foule weather which ordinarily they bring. And whereas our countreymen have called them in Latine Suculæ, *i.* porkets or ſmall ſwine (according to the apparent Greeke denomination, which they thought to be derived of ὗς, ſounding in Latine *Sus*, *i.* a ſwine) their ſuppoſall was falſe, and bewrayed their great ignorance. Moreover, *Cæſar* noteth the eighth day before the Calends of May,

* or *Hyades*, which ſome ſay, are five in nũber, as *Heſiodus*: others ſeven, as *Proclus*,

* ἀπὸ τῦ ὕειν ἢ ὑετῦ, *i.* of rain.

A May, which is the 24 of Aprill, for the time that the ſtar Hœdi, *i.* the Kids, doe riſe in Italy: but the next day after, they are obſerved to appeare in Ægypt: the morrow following, within Bœotia and Attica, the Dog-ſtar is marked to be hidden and gone in the evening, when as the Harpe-ſtar is ſeene in the morning. Now the day after that, which is the fifth day before the Calends of May, *i.* the 27 of Aprill, in Aſſyria Orion is quite hidden; and two daies after, the Dog-ſtar. Alſo the ſixth day before the Nones of May, which is the ſecond of that moneth, *Cæſar* obſerveth, That in Italy the foreſaid ſtarres Suculæ, riſe matutine and ſhew in the morning: like as alſo the rainie Goat-ſtar Capella, upon the eigth day before the Ides of May, which alſo is the eigth day of that moneth: and the very ſame day the Ægyptians doe obſerve in their countrey, that the great Dog-ſtar goeth downe in the evening, and is no more ſeene. Thus you ſee how theſe fixed
B ſtars and ſignes above rehearſed, doe ordinarily keepe their courſes, ruling and governing this time betweene, to wit, from the ſpring Æquinox in March, unto the ſixth day before the Ides of May, which is the ninth of the ſaid moneth. During the firſt fifteene daies of which halfe quarter, the husbandman muſt make haſt and take in hand that worke which he was not able to goe through with and diſpatch before the Æquinox; knowing full well, that upon neglect of this buſineſſe, aroſe firſt, the opprobrious reproches that vine-tuners and cutters doe heare on both ſides of their eares, from paſſengers and wayfaring men, by way of counterfeiting the ſong of that Summer-bird which they call the Cuckow: for it is counted ſo foule a ſhame, worthie a checke and rebuke, that the ſaid bird ſhould come and find a pruning hooke or bill in a vine at that time of the yeare; that folke therefore ſtick not to let flie at them bold taunts, and broad bi-
C ting ſcoffes, even in the firſt beginning of the Spring. And verily as theſe birds, ſo their ſong counterfeited in this ſort, ſeemeth to carrie an ominous and curſed preſage with them. See how the leaſt things belonging to Agriculture, are guided and caried by naturall reaſons! As for the later end of this foreſaid time, it muſt be employed in the ſowing of Panicke and Millet; for it is ordinarie and uſuall to ſow this kind of graine after that haſtie Barley is ripe, and alſo upon the very ſame lands where it grew. Now the ſigne common to them both, teſtifying as well the ripeneſſe of the one as the Seednes of the other, are the Glo-birds or Glo-wormes Cicindelæ, ſhining in the evening over the corne fields: for ſo the ruſticall paiſants and countrey clownes call certaine flies or wormes glowing and glittering ſtar-like; and the Greekes name them Lampyrides: wherin we may ſee the wonderfull bountie and incredible goodneſſe of Nature, in teaching
D us by that ſillie creature.

Chap. xxvii.

That Husbandmen ſhould not gaze at ſtarres ſo much, but rather goe by the ſeaſons of the yeare meet for ſowing. Alſo, that they ſhould marke the riſing, the ſetting, and the courſe of the Sun in ſome hearbes. And of the riſing and ſetting of other ſtars.

E NAture contented not her ſelfe to aſſemble a troupe of ſtars together in a knot (I meane the Brood-hen Vergiliæ, whereby it is a ſigne in heaven above, conſpicuous ynough alreadie, and of great mark) but ſhe would needs give the Husbandman other ſtars beneath upon the earth, as ſignes to ſhew him the true ſeaſons and times when and how to goe to worke: as if ſhee cried out and ſpake unto him after this manner: Why ſhouldeſt thou looke up to the heavens, thou that art to till thy ground? Why keepeſt thou a ſeeking among the ſtars for thy countrey worke? Take thy reſt and repoſe thy wearied lims good man, for the nights bee now ſhorter than they were: to bed therefore, for thou haſt but a while to ſleepe: Behold I ſcatter and ſpread here and there among thy very weeds and graſſe growing upon the ground, other eſpeciall ſhining ſtars, and thoſe I repreſent unto thine eies in the evening, & when thou doeſt unyoke and give over thy daies worke: and that thou ſhouldeſt not either plead ignorance, or neglect the ſame, I provoke thee to regard and looke thereat, as a ſtrange wonder. Seeſt thou not theſe
F flies or glo-birds aforeſaid cover their bright and glittering light, reſembling ſparckles of fire, when they keepe their wings cloſe together, and carie fire-light about them even in the night? More than ſo, I have given thee certaine hearbes to tell thee what is a clocke, and how the day goes: and to eaſe thee more, that thou needeſt not paine to avert thine eies away from the earth where thy worke lieth, and caſt them ſo much as up to the Sunne; loe the hearbe Heliotropium

and the Lupine, turne about with him. What ſtandeſt thou ſtaring ſtill into the skie, and holdeſt up thy noſe aloft into the aire? why art thou amuſed upon the courſe of the ſtars, and ſearcheſt into heaven? Haſt thou not I pray thee another Brood-hen ſtar, other Vergiliæ, I ſay, even before and under thy very feet, I meane theſe pretie glo-wormes? Surely theſe come duly at their ſet daies: theſe keepe time juſt with thoſe of the heaven, and ſo long as they appeare and ſhine above, theſe gloe and glitter beneath: as if they were linked to that ſtar by ſome neere alliance and affinitie: in ſuch ſort, as a man may reſolve and hold for certaine that engendred they be no otherwiſe but by the influence therof, and are the very chickens and brood of the foreſaid Hen. And therefore conclude we may, that whoſoever ſoweth his ſummer corn, and looketh to reape fruit accordingly before theſe are to bee ſeene, deceiveth himſelfe, and looſeth all his coſt and paines. In this meane time and ſpace betweene, the pretie Bee commeth abroad, and telleth us that Beanes bloume, for it is the Beane bloſſome that calleth her forth of her hive.

Wouldſt thou know another ſigne yet, that winter is paſt and all the cold cleane gone? when thou ſeeſt the Mulberrie tree to bud and put out young leaves, feare no more froſt nor hard weather to doe any harme for that yeare. Then (hardly) go to thy worke appropriate for this ſeaſon: now is it good to plant young ſions and quick-ſets of Olives; now is the time to ſcrape & cleanſe here and there where need is, the old Olive trees; and now would meddows be watered, even preſently after the Æquinox. What is elſe to be done in the field this Spring time? Mary, ſo ſoone as the graſſe in the meddow is growne to a ſtem and begins once to ſpindle, then let foorth the water, and draine your meddowes. Then doe the Vines looke for to be disburgened and rid from their ſuperfluous leaves and needleſſe branches: And herein there is a certain gage ſet, and a rule to goe by, namely, when as the ſaid burgeons are ſhot out foure fingers in length. Where, note by the way, that the disbraunching of an acre in Vineyard, is one mans work a day and no more. This is the ſeaſon to give corne lands their ſtirring, that is to ſay, the ſecond tilth or fallow. As for the ſarceling or weeding of [Winter] corne, it would bee done within twentie daies. For let this Æquinoctiall ſeaſon paſſe, it is thought that ſarceling and weeding will hurt not only corne, but vines alſo. To conclude, this is the very time alſo to waſh ſheepe.

And now to come againe unto our ſtars where we left. The morrow after the riſing or apparition of the ſtar Vergiliæ beforeſaid, *Cæſar* reckoneth, that the ſigne Arcturus looſeth his light and is hidden in the morning. Alſo, that the third day before the Ides of May, to wit, the thirteenth of that moneth, the Harpe ſtar ariſeth and begins to ſhine. Moreover, twelve daies before K the Calends of Iune, which is the one and twentieth day thereof, the Kid-ſtar goeth down in the evening: at what time as in the region of Attica the Dog-ſtar alſo ſetteth after the ſame manner. The next day after (by *Cæſars* account for the Meridian of Italy) Orions Sword beginneth by little and little to retire and goe out of our ſight. The third day before the Nones of Iune, *i.* the third day of that moneth (after *Cæſars* Ephimerides for our climate of Italie, as alſo according to the Chaldæans calculation for the Meridian of Aſſyria) the Eagle-ſtar beginneth to riſe and appear in the evening. In which region, Arcturus goeth downe, and wee looſe the ſight thereof in the morning, eight daies before the Ides of Iune, which is the ſixt of the month: howſoever with us here in Italie, he ſetteth two daies later. As alſo two daies after that, *i.* the tenth of Iune, the Dolphin ſtar appeareth and giveth light in the evening. But ſeventeene daies before the Calends of L Iulie, which is the fifteenth of Iune, we in Italie ſee the riſing of Orions Sword, which they in Ægypt do obſerve foure daies after. And eleven daies before the ſaid Calends, to wit, the one and twentieth day of Iune, the ſame ſtar (I meane the Sword of Orion) beginneth to go down and be obſcured in Italie, if *Cæſars* Almanacke bee true. Now are wee come to the eight day before the Calends of Iulie, namely, that foure and twentieth day of Iune, the very longeſt day and ſhorteſt night of the whole yeare, and the Summer Sunneſtead. In this ſeaſon alſo be vines disburgeoned and cleanſed from their unprofitable leaves and branches: then required it is, and care would be had, that an old Vineyard ſhould have once digging, and the new, twice. This is the time of ſheepe-ſhearing. Now, would Lupines bee turned in with the plough, for to enrich and manure the ground. Now are the lands to be cruſhed and ſet up againſt the ſeed time. Now Vetches would M ſtand no longer, but bee cut for to make forrage. Beanes alſo would bee now mowed downe, and thraſhed out of the way ſoone after.

CHAP.

A

Chap. xxviii.

Of meddowes and lay grounds for hay and paſture. The manner how to refreſh and repaire a meddow. Of ſith-ſtones and whet-ſtones: of Siths and Sickles. Alſo, the time for ſowing corne, and the deſcription of thoſe fixed ſtars that governe this ſeaſon.

THe ordinarie ſeaſon to mow meddowes, is about the Calends or beginning of Iune. And verely, albeit theſe kind of grounds aske leaſt care and toile about them for to bee maintained, and ſtand the Husbandman in as little charges, yet ſomething would bee ſaid thereof,
B and theſe few rules following obſerved. Firſt therefore, a ground would be hained in, left lay, and kept for graſſe and hey, which is for ſoile good and fat, for ſituation lying either low and moiſt, or elſe having water at commaund from a brook or river neare at hand: but above all, if it be poſſible, it muſt lie ſo, that it may have the benefite of the raine by letting in land-flouds into it (running along the lanes and high waies) for to refreſh and water the ſame. Alſo it is paſſing good otherwhiles to plough up a meddow ground [for the graſſe will come and grow afterwards the better] ſo it be well harrowed or raked thereupon, and laid even and levell. Provided alwaies, that hey-ſeeds, flowers & all, be ſowed upon it (ſuch as be found in hey-lofts and ricks, or els that ſhed out from the racke into the crib or maunger) which would bee done before the ſame ground bee harrowed as is aboveſaid. Howbeit, neither ought a meddow that is laid for hey and paſture, bee
C watered the firſt yeare, ne yet graſed with cattell, before the ſecond math; for feare leaſt the beaſts pluck up the graſſe quite ere it be well rooted, or kill the heart thereof by ſteining and trampling it under their feet. Moreover, it is to bee noted, that ſuch meddow grounds in time will age (as it were) and decay: in which regard, they ought to be helped and reſtored to their heart againe, by ſowing therein either Beanes, Rapes, Navews, or Millet: and when you have taken a crop of one of theſe from thence, the yeare following they would bee ſowne with ſome Frument or bread-corne: and ſo the third yeare left lay for meddow againe. Over and beſides, this would not be forgotten, that at every math, ſo often as the graſſe is mowed for hey with the ſyth, there come one after with an hooke, to cut downe thoſe tufts and manes which the mowiers paſſed over and left ſtanding behind them: for there is nothing worſe for a meddow, than to ſuffer graſſe grow to
D ſeed. The beſt hearbe in a meddow is the Claver graſſe or Trefoile: next to it is the common graſſe called Gramen, *i.* Coich or Dogs-tooth: the worſt is *Mimmulus. Alſo the Camocke or Whin, called Reſt-harrow, and ſuch like codded graſſe, is not for mowiers, for they crie out upon ſuch and curſe it. Moreover, they cannot away with the hearbe Equiſetis, *i.* Horſe-taile, ſo called for the reſemblance it hath to an horſe-taile or mane.

* Some read *Nummulus*, i. *Nummularia*, Peny-graſſe.

The fit time to mow downe graſſe, is when the ſpike or head thereof beginneth once to ſhed flowers, and to waxe ſtiffe: for in no caſe muſt it ſtand untill it be drie and withered. Bee not too late (quoth *Cato*) in your hey harveſt, but downe with your meddowes, before the ſeed of your graſſe bee ripe. Some, the day before that they ſet ſyth into their meddowes, water them, if there be a brooke at hand to be let in. And indeed the beſt cutting downe of graſſe is preſently upon
E ſome good dewes that have fallen overnight. * In ſome parts of Italie the manner is to cut their meddows after corne harveſt. Moreover, in old time it was more coſtly and painefull to mow (by far) than it is now adaies: for they uſed no other whetſtones, but ſuch as were knowne and ordinarie, as brought out of Candie and from beyond ſea; which would not give an edge to their ſythes and make them keene, without they were whetted with oile [as Barbers doe their raſours, and gravers their fine chezils and carving yrons:] and to that purpoſe the mowier went ever with a horn full of oile, tied faſt to his ſhanke. Since which time there have been found in Italie other maner of grindſtones, with water, which will bring any yron toole to an edge quickly, aswell as a file. But theſe water grindleſtones ſoone get a ſwarth and preſently become greene.

* Haply he meaneth a ſecond math.

As touching the very Sythes, there bee two ſorts of them. For thoſe of Italie be ſhorter than
F other, eaſie to handle and weld, and it were among buſhes, briers, and brambles. In France where their fields and meddowes be large, they goe a nearer and ſhorter way to worke, for they make no more adoe, but cut the graſſe down at the middle, and let that alone which is ſhort. Our mowiers here in Italie, take but one hand to it, and that is commonly their right, and ſo cut downe their graſſe: thus you ſhall have a man ordinarily in one day goe over an acre and cut it downe clean.

Alſo

Alſo it is one mans worke to bind the hey of one acre into bottels: and uſually you ſhall have in ſo much ground* 1200 pretie ones, of foure pound weight apeece. So ſoone as the graſſe is cut downe and laid in ſwath, it muſt bee tedded, brought into windrowes, and turned eftſoones with the Sunne: neither ought it to be cocked up but drie: for otherwiſe, if this bee not carefully looked unto, you ſhall ſee it reeke and ſmoke again by the morning, for the heat that it hath caught within: but let the Sunne take it beſides, you ſhall bee ſure to ſee the cockes kindle and bee of a light fire. G

*Which is almoſt three of our ſale lodes.

So ſoone as this firſt graſſe is downe and the hey made, the meddow muſt preſently be watered againe, to the end there may be a ſecond math of rowen hey in * Autumne, which the Latines call Cordum. In the territorie of Interamna they uſe commonly to mow their meddowes foure times a yeare, yea, though they lie high and far from the benefit of water. And in moſt places of Italie, thrice is ordinarie: and the rowen graſſe afterwards commeth up ſo thicke and high for paſture and forrage, that it yeeldeth as great a benefit as the crops of hey before: marie, to raiſe this commoditie and gaine, thoſe know full well who are drovers of greater cattaile, breeders alſo of young colts, and principally, chariottiers that keepe coach-horſes; for all theſe have the beſt meanes to employ this graſſe for their moſt behoofe. H

*Some call it woodcock hey.

To proceed now to the conſideration of the heavens. The Summer Sunneſtead, falleth out alwaies [in Italie] to be juſt upon the foure and twentie day of Iune, at what time as the Sunne is entred eight degrees within Cancer, as hath been ſaid before. This is that great point and Tropicke of the world: now is the heaven in moſt force, and the Sunne at the higheſt of his power and vertue. From the midwinter or ſhorteſt day of the yeare, unto this preſent, during the ſpace of ſix moneths the daies lengthen: and now the Sunne being paſſed farre into the North, and having mounted and raught to the higheſt pitch of his intended laborious journey, beginneth to turne againe from this Tropicke of Cancer in the North, and bendeth his courſe toward the other Tropicke of Capricorne in the South; intending by this meanes for other ſix moneths to lengthen the nights and to ſhorten the daies, proportionably. Which the Husbandman no ſooner ſeeth, but he taketh his opportunitie, and woteth well, that now is the time wherein hee muſt of neceſſitie make haſt to gather and inn the fruits of the yeare, each one reſpectively in their ſeverall ſeaſons: now or never ought hee to lay in his proviſion againſt the Winter: now muſt hee arme and prepare himſelfe (no remedie) to withſtand the rigor of cold and froſtie weather. And therfore meet it was, that dame Nature (our kind nource and tender mother) ſhould give us warning hereof, and foreſhew this alteration of the yeare, by moſt undoubted and infallible arguments. Hereupon ſhe hath preſented theſe markes and ſignes to the Husbandman, and brought them even to his hand: commaunding ſundrie trees upon that very day of the Sunneſtead to turne their leaves toward the Sunne, as if ſhee pointed unto them by the finger, and ſhewed how that Planet began to retire from whence hee came: ſo willing ſhe is, not to conceale from him theſe ſecrets, that ſhee hath not ſet theſe markes upon wild and ſavage trees far remote out of the way, (becauſe ſhe would not have him take ſo much paines as to go into deſert forreſts, unpaſſable wields and mountaines, to ſeeke for the ſignes and tokens aforeſaid) ne yet upon ſuch as grow within good townes and citties, much leſſe then thoſe that ſerve and are in requeſt for arbors and vinets onely in hortyards and gardens of pleaſure, that he ſhould be faine to leave his ferme in the countrey and goe thither (and yet theſe trees alſo teſtifie of the Sunneſtead and his returne:) what hath ſhe done then? Marie ſhe hath cauſed the Olive tree, which he ſeeth every hour planted at his very foot, to turne about her leafe: ſhe hath willed the Linden, a tree that hee hath recourſe unto every foot for a thouſand uſes, to doe the like: ſhe hath enjoined the white Poplar or Aſpe alſo the ſemblable, wedded as it is ſo commonly to Vines. Haſt not thou ynough yet (quoth ſhe) and will not all this make thee perfect? Look then to the Elme, at the foot wherof thou planteſt thy Vine, and which thou ſeeſt continually endowed and enriched therewith, I will make it alſo to turne the leafe when the Sunne returnes. Thou ſtrippeſt her of her leaves and braunches for thy cattell to eat and brouſe; thou getteſt up into it for to prune the Vine; How canſt thou chuſe but ſee the leaves turned? How canſt thou be ignorant, but take knowledge of the Solſtice and Sunnes returne? Surely that ſide of the leafe which was from the Sunne but yeſterday, is now cleane contrarie, and lookes toward him; and in one word, all are turned upſide downe. Thou occupieſt the oiſier and willow twigs ever and anone, to bind and tie one thing or other; loweſt they grow of all the reſt, and higher thou art than they by the head: never look up nor caſt thine I K L M

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A eie aloft for the matter: thou ſhalt ſee how I will have them alſo, growing even under thy noſe, to turne their leaves about and follow the Sunne. Why complaineſt thou and whineſt, ſaying, I am a ſimple countreyman, I am not booke-learned, I never went to Grammer ſchoole, and I wot not what? Certes, I cannot doe withall if thou be ignorant of the heavens, and canſt not skill of the cœleſtiall ſigns and courſe of the ſtars: it ſhall not be long of me, but thou maiſt be an Aſtronomer and Clearke ſufficient. For if all this teaching will not ſerve, in caſe, I ſay, thine eies will not inſtruct thee ynough to learne theſe ſignes: one ſigne more will I preſent unto thine eare. Doe but liſten to the groning tune and pitifull mone that the Quoiſt and Stock-dove makes: and never thinke that the Sunneſtead is paſt, before ſhe have left ſinging, and that thou ſeeſt her coave and ſitting upon her egs.

B But now to goe on ſtill with our Aſtrologie and Speculation of Heaven as wee have begun: among thoſe ſtars that rule this ſeaſon from the Sunneſtead beforeſaid, unto the ſetting or occultation of the *Harpe-ſtar; *Cæſar* ſaith, that ſix daies before the Calends of Iulie, to wit, the ſix and twentieth of Iune, Orion riſeth to the inhabitants of Italie: howſoever the ſtar called Orions *girdle, appeareth not to the Aſſyrians before the fourth day of Iulie, upon which day, in Ægypt the ſtar Procyon, *i.* the fore-runner of the Dogſtar Syrius ſheweth in the morning, and commeth in very hote and fierie: and ſurely what Latine name this ſtar ſhould have among the Romanes, I wote not, unleſſe we would have it to bee Canicula, that is to ſay, the Leſſe Dog ſtar, according to the pourtrait that it ſeemeth to reſemble among thoſe fixed ſtars in the firmament: and yet is this a ſigne in the heaven of great marke and conſequence, as anone we will declare more plainely. The third day before the Nones of Iulie, *i.* the fift of the ſaid moneth, after the Chaldæans account, in Aſſyria and Babylon, the ſtar named Corona, *i.* the Crowne, goeth downe in the morning: but on the very ſame day to the people of Attica, Orion is ſeene to riſe all whole as hee is. The even of the Ides of Iulie, which is the foureteenth of that moneth, the ſame Orion ceaſeth to be ſeene of them that dwell in Ægypt: and ſixteene daies before the Calends of Auguſt, to wit, the ſeventeenth of Iulie, the foreſaid ſtar Procyon riſeth to them in Aſſyria. The morrow after, which is the eighteenth day, all writers in manner doe agree upon the riſing of that ſignificant and notorious ſigne, which commonly we call the Dog-ſtar, to wit, when as the Sunne is entered the firſt degree of Leo, which falleth out to be the three & twentieth day after the Summer Sunſtead. And in truth both ſea and land doe find and feele the arrivall or comming of this ſtar, yea,

D and many a wild beaſt beſides, according as we have ſhewed already in place convenient. Neither is this ſtar leſſe worſhipped and adored than thoſe renowmed Planets which carie the names of gods and goddeſſes, and have divine honours done unto them. He it is that enflameth and ſetteth the Sunne on fire: to him is imputed the greateſt cauſe of that extreame hot weather, during the canicular daies. Two daies before, which is the fifteenth of Iulie, in Ægypt, the Æagle ſtar goeth downe in the morning, and then the Eteſian winds (called the Avant-curriers) begin, which *Cæſar* thought were not felt nor knowne in Italie untill eight daies after, namely, the three and twentith of Iulie: on which day the Ægle ſtar is knowne to ſet and goe out of ſight in the region of Attica and that tract, in the morning. As for the Roiall ſtar ſeated in the breaſt of Leo, *Cæſar* affirmeth, That it goeth downe and is all hidden betimes in the morning, the thirtieth day of Iulie, which

E is three daies before the Kalends of Auguſt. Now the eight day before the Ides of Auguſt, which is the ſixt day of the month, the one moietie or halfe of Arcturus goeth down: but the third day before the ſame Ides, which is the eleventh of that moneth, the Harpe ſtar by his occultation or going downe, beginneth Autumne, according as the ſame *Cæſar* noteth: but indeed and verely, as it hath been found by true demonſtration, it is the ſixt day before the Ides, to wit, the eight of Auguſt. This halfe quarter or ſix weekes ſpace, is that which determineth of vines and vintage, by the meanes of that ſtar which we called Canicula, the very ruler indeed over Vineyards, and whereupon dependeth the good or bad ſeaſon for all our grapes and wine the next yeare. From hence it is, and not otherwiſe, that the Vines are ſaid to be blaſted, & the grapes burnt (as it were) to a coale. No haile ſtormes, no tempeſt of wind or raine is comparable hereunto, nor doth the

F like harme to corne and grapes: this cauſeth many a time ſcarcitie, and bringeth extream dearth and famine, which neither haile nor tempeſt doth. As for theſe tempeſts, they endomage haply and hurt ſome fields here and there: but the blaſt beforeſaid plagueth whole countries, farre and neare. Howbeit, it were no hard matter to deviſe how to withſtand and remedie this miſcheefe, but that men take more pleaſure to take occaſion for to blame Nature and her workes, under pre-

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tence and colour of ſuch untoward blaſts, than to ſeeke and find meanes to do themſelves good. G
It is reported of *Democritus*, the firſt Philoſopher who underſtood himſelfe, and afterwards ſhewed unto the world, the great affinitie and agreement that was between heaven and earth (which ſundry of his the richeſt and wealthieſt citizens where he lived, ſeemed to ſcorne and deſpiſe) foreſeeing by the courſe of the ſtars, & namely, by the riſing that would be of the Vergiliæ or Brood-hen (according as I have ſhewed alreadie, and will anon declare more at large) that Olives would faile that year, and conſequently a dearth enſue of oile; bought up all the oile in that tract & countrie, which as then for the hope of great plentie of Olives, bare no price: whereat the great merchants of the citie (who dreamed of nothing leſſe than of a ſcarſitie of oile, conſidering the Olives made ſo fair a ſhew upon the trees) were aſtonied & marvelled much, that *Democritus* ſo learned a Philoſopher, & a man who they knew, was wont by his profeſſion to content himſelfe with poverH tie, to ſet his mind upon nothing ſo much as a quiet life, & wholly to buſie his braine in attaining of knowledge and learning, was now on a ſuddain become a merchant. In the end, they perceived what the cauſe was, & acknowledged his divine skill in foreſeeing & preventing a dearth: and he for his part ſhewed plainly, That it was not avarice and deſire of lucre that moved him to take this courſe, but to let the world know, that if he were ſo diſpoſed, he could by the means of his learning only, be ſoon a rich man (as indeed he grew hereby to exceeding wealth:) for preſently of his own accord he reſtored again unto the former owners, who God wot were diſpleaſed with themſelves for that they had done, & wiſhed withall their harts, that they had met with the like bargaine; he remitted (I ſay) all this commoditie which he had gotten into his own hands, at their owne price: reſting herein, that he had made good proofe, how ſoon & eaſily he could be rich whenſoever he I
would. Long time after him, *Sextius* one of our Roman Philoſophers, did the like at Athens, and after the ſame manner: whereby we may ſee, in what ſtead learning and literature ſerveth, if a man will employ the ſame to his own benefit. And I care not much verily to give the countriman a taſt thereof, as much as may concern the cauſe of the Blaſting aforeſaid, and to intermeddle the ſame with his ruſtick affairs, but as plainly and with as great facilitie & lightſomeneſſe as poſſibly I can. Moſt are of this opinion & have delivered in writing, That as well the blaſting in corn called Ruligo, as the ſindging & burning of vines named Carbunculus, proceed from certain dews ſetling upon them, which caught a cauſticke qualitie from the acrimonie and extraordinarie heat of the Sun. This conjecture and reaſon of theirs, I hold in ſome part to be falſe, for the Sun never doth harme either to the one or the other in this reſpect; but looke what blaſt ſoever it be that ſindK geth or burneth corne and vines, it is occaſioned by cold onely: and if you take good heed and marke how this commeth about, you will ſay it is cleare and paſt all peradventure: for firſt and foremoſt this is well knowne, That it never hapneth but in the night, or at leaſtwiſe before the Sunne is riſen: ſo as we may conclude well and truly, that all this dependeth upon the influence of the moone. For never ſhall a man ſee any of theſe hurtfull blaſts, but either about the change or full of the moone, that is to ſay, when ſhee is in her greateſt force: for at both theſe times, as well in the conjunction with the Sunne, as in oppoſition, powerfull ſhee is, and in ſome ſort may be tearmed Full, as I have many a time alreadie ſaid. But at the chaunge, looke what light ſhee received from the Sunne, the ſame ſhee ſendeth all up againe to heaven. Great difference therfore there is in the effects of the moon in both theſe habits, and the ſame very evident and appaL rant: for be it in ſummer, hoteſt ſhe is in the change; but in winter, cold: contrariwiſe, the moon in ſummer being at the full, maketh cold nights, and in winter is warme: the cauſe whereof is plaine and manifeſt. Howbeit, *Fabianus* and the Greeke writers, render another reaſon: for in ſummer time, the moone being in coniunction with the ſunne, and meeting with him when he is in a circle neareſt unto us, muſt of neceſſitie be enflamed with the fire that it receiveth from the ſunne, ſo neare unto her and us both: whereas contrariwiſe, during winter, in the time of the chaunge or conjunction, ſhe cannot chuſe but be cold, as being remote far from us; like as the ſunne alſo, who is retired far South toward the Tropicke of Capricorne. Semblably, at the full in Summer, ſhe is far off from us, as being oppoſite unto the ſunne ſo neare unto us: no marveile therefore if ſhee be cold in regard of our climat: but in winter, at the ſame time of her oppoſiM tion as ſhe is nearer unto us, taking her courſe through the ſummer circle of the ſunne; ſo we may conclude, ſhe doth moderate the rigour of winter cold, and conſequently that then, ordinarily ſhe is warme. Conſidering then that the moone being (at the full in ſummer) ſo cold, and charged ordinarily as ſhee is of her owne nature with much dew, what wonder is it if at ſuch a time

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A the froſts and dewes that fall bee exceeding cold and congealed againe, which are the cauſe of all the ſaid blaſtings? But above all we muſt remember, that there be two ſorts of accidents comming from above, that mightily doe wrong and annoy the fruits of the earth. The one wee call Tempeſts, which comprehend hailes, ſtormes of wind and raine, and ſuch like impreſſions of the aire, which whenſoever they doe light, are tearmed by the Lawyers, *Vis major*, *i.* the greater violence: and theſe for the moſt part proceed from ſome of the horrible and dreadfull Stars, as we have many times noted, to wit, Arcturus, Orion, and the Kids. Of the ſecond ſort of theſe calamities, be they which happen when the weather is ſtill and quiet without any trouble of winds, in the faireſt and cleareſt nights, and no man ever perceiveth them untill the harme be done: theſe be more publicke and univerſall, theſe differ much from the former; ſome call them Mieldewes, B others Hot-planets; ſome againe tearme them Blaſts and ſindging Carbuncles: but it skills not much what names they have, for all men confeſſe that ſcarſitie and dearth is their effect. And for as much as no man hitherto hath written of theſe Blaſts, &c. I meane to deliver mine opinion of them, and firſt to ſet downe the cauſe and reaſon thereof.

or, the hand of God.

Chap. xxix.

Of the tempeſts and calamities incident to the fruits of the earth, as well in Winter as Summer: the meanes alſo to remedie ſuch accidents cauſing ſterilitie and ſcarſitie.

C THeſe Blaſts, theſe wicked Planets, that ſindge and burne the fruits of the earth, beſides the influence and power of the moone, proceed from other cauſes, and twaine eſpecially, and thoſe are not to bee found in many coaſts and quarters of the heaven: for the ſtarre Vergiliæ, regardeth principally the fruits of the earth, and over them is very predominant; as beeing the only ſtar, which in her riſing and apparition begins ſummer; in her fall and occultation, ſheweth the entrance of winter; by which meanes for ſix moneths ſpace, whiles ſhee is in ſight, ſhee compriſeth harveſt and vintage, and generally cauſeth all fruits to ripen kindly or unkindly.

There is beſides in the heaven, a certain white circle called the Milkeway [or Watling-ſtreet] which is not imaginarie as others, but very conſpicuous and eaſie to be ſeene. By the influence of this circle, as it were out of ſome udder, all plants receive their milke, their humiditie, and nu- D triment, and namely, by the meanes of two notable ſtars obſerved therein; to wit, the Ægle in the North ſide thereof, and the Dog Canicula (whereof we made mention in place convenient) ſituate toward the South. This circle then paſſing through the ſignes of the Zodiacke, Sagittarius and Gemini, and ſtretching by the centre of the Sunne, cutteth the Æquinoctiall line twice in two ſeverall places: the commiſſures or joynts of which two ſignes, are poſſeſſed of the one ſide with the Ægle ſtar, and on the other ſide with the Dog Canicula beforeſaid. No marveile therefore if all countries habitable and fruitfull, be ſubject to the influence of theſe two ſtars and feele their effects; becauſe in thoſe parts onely of the Zodiacke wherein they are placed, the centre and middle of the earth, togither with the centre alſo of the Sunne, agree and meet juſt in one and the ſame point of the Æquinoctiall. Hereupon it is, that if in the ſeverall ſeaſons of theſe E two ſtars aboveſaid, (to wit, when the Ægle and the Dog Canicula, do either riſe or fall, appeare or couch) the aire be pure, cleare, and mild, and thereby the humor genitall diſtilling from that Milkeway or circle aforeſaid downe to the earth, meet with that faire and calme aire, then all plants and fruits of the earth are the better for it, and proſper mightily. Now in caſe the moon either at chaunge or full, doe ſend downe and ſprinkle upon them a cold congealed dew (in maner aboveſaid) the humor and nouriture likewiſe deſcending from the Milke-circle, is infected therewith and becommeth bitter, killing all the fruit upon which it falleth: much like as if a yong babe or infant new borne, ſhould ſucke bitter and unholeſome milke, and thereupon ſoone after die. Thus you ſee, how in every climat whatſoever, the correſpondence of the moone and the ſtars aboveſaid more or leſſe, cauſeth thoſe untoward Blaſts, Mieldewes, and ſuch like; not in like F meaſure at one time and in every place. Which is the cauſe that this kind of injurie and calamitie is not felt at one inſtant throughout the world, no more than the day is one and the ſame in all parts of the earth: for the Ægle (as I have ſaid before) ariſeth to us in Italie thirteen daies before the Calends of Ianuarie, *i.* the 20 of December: now before that day be paſt (by the ordinarie courſe of Nature) there can be no aſſured hope of the fruits of the earth, but that they

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may miſcarrie: but if it fall out beſides, that the moone upon that day doe chaunge, all fruits as well winter fruits as thoſe which be called Haſtie, muſt of neceſſitie take harme and bee hurt thereby. Rude and ſimple, I confeſſe, were our aunceſtors in old time, and altogither unlettered, howbeit as wittie (as ſhall appeare) in their obſervations and ceremonies, as our Moderns in theſe daies be reſolute, with all their skill they have, grounded upon reaſon and conſequence: for according as they feared three ſeaſons above the reſt, leaſt they ſhould doe harme unto the fruits of the earth; ſo they inſtituted as many Holydaies and ſet feaſts, to wit, Rubigalia, Floralia, and Vinalia. As touching Rubigalia, they were ordained firſt by King *Numa* in the eleventh yeare of his reigne, which now we celebrate a * ſeven-night before May day, to wit, the 25 of Aprill: the reaſon is, for that about this time corne is ſubject to the blaſt. Howbeit, *Varro* following the order obſerved in his daies, ſetteth downe this daungerous time to be, when the Sun is in the tenth degree of Taurus, and occaſioned thereby. But in deed, according to the calcul of others, the true reaſon and cauſe is this, That about nineteen daies after the Spring Æquinox, divers nations have obſerved foure malignant daies, which reach to the 28 of Aprill: in which time, the Dog-ſtar Canis coucheth (a violent and daungerous ſtar of himſelfe by nature) and before which of neceſſitie the other little ſtar Canicula muſt retire and goe downe. And therefore thoſe aunceſtors and forefathers of ours, inſtituted the feaſt of Floralia, as they were adviſed out of the bookes of *Sibylla*, in the 516 yeare after the foundation of Rome cittie: who ordained alſo, that the ſaid feaſt ſhould be held the fourth day before the Calends of May, to wit, the 28 day before-named of Aprill, for this intent, That all plants might blowme kindly, and ſhed their bloſſoms as well. *Varro* ſetteth downe this day to fall out, when as the Sunne is entred fourteene degrees into Taurus. Therefore in caſe it be full moone during theſe foure daies of the feaſt Floralia, not onely corne, but all other plants whatſoever that ſhall bloſſome, are ſure to take great harme thereby. As for the former feaſt called Vinalia, which is kept five daies before, to wit, the * 23 of Aprill, it concerneth nothing at all the fruits of the earth, but was appointed only as a fit time for to taſt wines. And yet for all theſe obſervations before-named, there is none of them pertinent either to Vines or Olive trees, for their time of conception beginneth at the riſing of the ſtar Vergiliæ, to wit, ſix daies before the Ides of May, which is the tenth of that moneth, as we have before declared. About which time, there be other foure daungerous daies, in which husbandmen in no wiſe would have any groſſe and filthie ſtinking dewes to fall, for feare of their Vines and Olives, (for above all, they ſtand in dread of the ſtar Arcturus, which goeth downe the morrow after the riſing of Vergiliæ, and commonly brings with it raw and unkindly rimes) and much leſſe that the moone ſhould happen to be in the full at ſuch a time. The fourth day before the Nones of Iune, which is the ſecond of the ſame moneth, the Ægle ſtarre appeareth the ſecond time in the evening: a judiciall day is this day, and it will go hard with Olives and Vines now in their floure, eſpecially if the full moone alſo light thereupon, and give evidence againſt them. For mine owne part, I would thinke verily, that the Summer Sunſtead ordinarily upon the 25 of Iune is as dangerous; as alſo the riſing of the great Dog-ſtar which alwaies falleth out to be 23 daies after the ſaid Sunſtead, if ſo bee that the moone doe chaunge in any of thoſe two daies; for then commeth the harme by extremitie of heat, which doth ſo bake & harden the young kernels of the grapes and Olives new knit, that they be tanned as it were into a tough calloſitie, that they can thrive and grow no more from that day forward. Againe, the full of the moone is as hurtfull as it, to vines and Olives, if it happen the fourth day before the Nones of Iuly, to wit, the fourth day of the ſaid moneth, at what time the leſſe Dog-ſtar Canicula riſeth to them in Ægypt; or at leaſtwiſe the ſixteenth day before the Calends of Auguſt, which is the ſeventeenth of Iuly, when we in Italy diſcover the riſing of the ſaid Canicula. Likewiſe if the moone chaunce to be in the full betweene the twentie and three and twentie daies of the ſaid Iulie, what time the Ægle ſtar goeth downe, the ſame daunger befalleth vines and Olives. As touching the ſecond feaſt Vinalia, which is obſerved and kept thirteene daies before September, to wit, the 20 of Auguſt, it is not to be raunged among theſe, as being of another nature, and inſtituted at firſt for other cauſes. *Varro* would have this feaſt to begin at the departure of the Harpe-ſtar Fidicula, which beginneth to retire in the morning, and which day he ſetteth downe for the firſt entrie of Autumne: ſaying moreover, that this feaſt was inſtituted for appeaſing the ſtormes and tempeſts incident to that ſeaſon. And now obſerved it is, that the ſaid Harpe-ſtarre Fidicula ſetteth ſix daies before the Ides of Auguſt, which is the eighth day of that month. Thus much

* S. *Marks* day with us.

* S. *Georges* day with us.

G H I K L M

A much as touching the cauſes of ſterilitie and dearth, occaſioned by the conſtellations, according to ſundrie ſeaſons of the yeere, after that calculation which I goe by: But I will not bind every man thereto, for well I know and cannot denie, but the readers may chaunge and alter the ſame at their pleaſures, according to the diverſitie of the climats; in regard whereof, the obſervation alſo of thoſe daungerous daies may vary from mine account. For this preſent, it ſufficeth my turne that I have ſet downe the true cauſe in Nature, from whence proceed thoſe calamities: all the reſt beſides, I refer to ech mans conſideration, who for any thing that I have ſaid, may take their libertie and obſerve what they think good. Certes this ſhall be found cleare and doubtleſſe in the end, That theſe unkind dews and dangerous blaſts are occaſioned by one of theſe two cauſes, to wit, either the full or chaunge of the Moone. And herein verily, I cannot chuſe but me-
B ditate upon and admire the wonderfull goodneſſe and bountie of dame Nature; firſt in this, That ſhe hath ſo limited and determined the ſet courſe of the ſtars, that theſe calamities cannot poſſibly happen every yeare; neither yet oftentimes in the ſame yeare, but onely ſome few nights, to wit, in the chaunge or full of the Moone: and when they will come, it is eaſie to foreknow and fore-tell. And to the end that we ſhould not need to feare theſe daungers every moneth, ſhee hath ſo ordered the matter, and divided the influence of the Moone by night in ſuch ſort, that ſetting aſide two daies in Summer, the chaunges of the Moon do no harme at all: no more than the full in Winter: neither are theſe two new Moones to bee feared, but in Summer nights, and thoſe ſhorteſt of all other, wherby they have leſſe time and leaſure to offend the earth: for all the day long they have not the ſame force, nor work the like effects. Over and beſides, ſo eaſie a mat-
C ter ſhee would have it for to know either the conjunction or oppoſition of the Moone, that the very Piſmire (the ſillieſt and leaſt creature of all other) by inſtinct of Nature, is our guide to the one and the other: for in the chaunge ſhe is ſeene commonly to reſt and take her repoſe; whereas at the full Moone ſhe workes and labours both night and day. And that we ſhould not bee ignorant of the Dogge-ſtar Sirius his riſing, looke what day he ſheweth firſt, the little Nonett or bird, called in Latine Parra, goeth aſide, and appeareth not again before he be hidden and gone downe. Contrariwiſe, the Loriot, Greene-finch, or Canarie bird Vireo, commeth abroad the very day of the Summers Sunneſtead, and not before, that we ſhould not pretend ignorance of the longeſt day in the yeare, a time whereon dependeth ſo great a conſequence. But be it change or be it full, neither the one nor the other habite of the Moone is daungerous, no not in the ve-
D ry night ſeaſon, unleſſe it be cleare and calme, that is to ſay, faire ſtar light, and all winds laid: for neither in cloudie and cloſe weather, ne yet when the winds are aloft, doe any dewes fall. And at ſuch times alſo as they uſe to come, there is a remedie provided againſt them: for when thou feareſt a blaſt or Mieldeaw, lay me altogether all over the fields and Vineyards (by heaps) Vine-cuttings and ſuch drie ſtickes, chaffe, ſtraw, and other like mullocke, drie weeds & ſhrubs which have been plucked out of the ground, and ſet them all on fire; the very ſmoke will helpe this matter, and avert the daunger from corne and grapes. And as for the fume of chaffe and ſtraw, it is good againſt ſtinking fogs and miſts, when they are thought to doe harme. Some there bee that preſcribe to take three Crab-fiſhes alive, and to burne them in Hortyards among the trees, to preſerve and defend them againſt the ſendging blaſt called the Carbuncle. Others take the fleſh of
E the fiſh Silurus, & roſt or broile it ſoftly upon the fire, on the wind ſide, to the end, that the fume and ſmoke thereof might be caried and diſperſed all over the Vineyard, to chaſe away the ſcorching blaſt aforeſaid. *Varro* affirmeth, That if about the retrait of the Harpe-ſtar Fidicula, which is the beginning of Autumne, a man paint a cluſter of grapes, and conſecrate it to the gods among the Vines, the ſtormes and tempeſts of wind and raine will do leſſe harme to the fruit hanging thereupon. *Archibius* in a booke that hee wrote to king *Antiochus*, ſaith, That if a land-toad be put into a new earthen pot that never was occupied before, & the ſame enterred and covered within the ground in the middeſt of a corne field, the corne ſhall take no harme that yeare by any tempeſts whatſoever.

As touching the ruſticall worke which ſhould be done in theſe ſix weekes ſpace, the Husband-
F man ought to give his lands a ſecond fallow, to dig about the roots of trees, and (where the heat of the countrey doth ſo require) to mould and banke them againe: howbeit, ſuch as be budding and putting forth new ſhoots, would not be digged, unleſſe the ſoile be very good and ranke. Seminaries or nource-gardens would now be ſarcled and cleanſed. Addreſſe himſelfe he muſt, and make all readie againſt Barley harveſt. Now is he to prepare his barne plot and thraſhing floore,

and to pave it with a coat of chalke, tempered well and wrought with oile dregs, by *Catoes* advise; howsoever *Virgil* is more curious in this behalfe. For the most part of Husbandmen, after they have laid it even and levell, they goe over it againe with Oxe dung, tempered to a thin consistence with water, for to bind the said floore: and this is thought to bee a sufficient remedie, that the dust shall not rise.

Chap. xxx.

Of Corne-harvest: of common Wheat: of Chaffe: and the order how to keepe corne.

As touching the manner of cutting downe or reaping corne, there be diverse and sundry devises. In Fraunce where the fields be large, they use to set a jade or an asse unto the taile of F a mightie great wheelebarrow or cart made in manner of a Van, and the same set with keene and trenchant teeth sticking out on both sides: now is this carre driven forward before the said beast upon two wheeles, into the standing ripe corne (contrarie to the manner of other carts that are drawne after) the said teeth or sharpe tines fastened to the sides of the wheelebarrow or car aforesaid, catch hold of the corne eares, and cut them off: yet so, as they fall presently into the bodie of the wheelebarrow. In some places the fashion is to cut with a hooke or sycle the straw in the middest: and betweene every two sheaves they sit downe, and then crop off the eares just at the straw. In other countries they use to plucke up the standing corne by the root: and in so doing, perswaded they are that this is a very neare and readie way to save charges, & may serve for one tilth well ynough: but by their leave, they rob the ground by the meanes of her kind and I naturall moisture. The reason of this diversitie and difference is this: in such countries where they use to thatch their houses with straw, they save it to the full length, and goe as neare as possibly they can: againe, where there is but small store of hay, they make account of their short chaffe for to litter, yea, and fodder their beasts. As for Panicke haulme, it never serveth the turne in any place for thatch. And for Millet straw, they burne it ordinarily. Barley straw is kept and saved very carefully for an excellent fodder, that kine and oxen love very well. To conclude, in France they have another way to gather their Panicke and Millet especially, to wit, cutting the same eare by eare upon a combe with a handle to it [as Barbers use to clip or poll mens heads.]

Concerning the devise of thrashing, it is practised sundrie waies. In some places they use to crush the corne out of the eares with heavie and rugged dreies drawne over it, as it lieth upon K the barne floore. In others, they set Mares to stampe and trample it under their feet, and so drive it out: and there be againe who beat and flap it forth with flailes or cudgels.

Common wheat, the later that it is reaped, the better it is found of cast: but the sooner that it goeth downe, the fairer is the graine, and more full and weightie. The best rule for the one and the other, is this, to goe downe with it, and lay it along, before the corne bee verie hard, and when it begins once to looke russet, and to have a browne or reddish blee. And here, remember the old said Saw that may goe well for an Oracle, Better two daies too soone, than as many too late.

For the inning of the fine wheat Siligo, and the common Triticum, it is much after one sort, L and they would be ordered alike, both in barne, rike, and thrashing floore. The good red bearded wheat Far, because it commeth hardly out of the huske, and asketh some painefull thrashing, ought to bee laid up in the garner, huske and all together, even in the chaffe; onely it would be rid from the maine straw, and despoiled of the eiles or beard growing to the eare. Chaffe is good chaffre in many countries, and serves in stead of hay. Where note, that the finer and smaller that the chaffe is, and enclining nearer to pouder, the better it is thought to be. And therefore the best simply is that which commeth of Millet: the next in goodnesse, Barley maketh: but the common wheat Triticum yeeldeth the worst, unlesse it bee for poore hungrie jades and such labouring garrons.

The straw or haulme that remaineth standing as boltings when corne is reaped by the eare or M after it be well dried, the manner is to lay upon some hard, craggie, and stonie ground, then all to beat and belabour it with cudgels, that it may bee soft and serve in stead of litter to lie under cattell. If chaffe faile for fodder, the very haulme or straw left in the field, ought to bee braied and beaten short, to supplie forrage in manner following. Cut it downe so much the sooner, let it bee

well

A well ſprinckled and drenched a long time in brine: and when it is dried againe, make it up round into certaine bottles or bals, and ſo give it to kine and oxen for their fodder. There bee that ſet fire on it, and ſtraw both, in the field whereas it grew. And ſurely, *Virgil* highly commendeth this for a great point of Husbandrie: the cheefe reaſon hereof was, to burne the ſeed that the weeds ſhed, and to kill their roots that remaine upon arable ground. In ſumme, the diverſe faſhions and manners of reaping, proceed from this, That in ſome countries the harveſts bee greater than in others: and beſides, Reapers and mowiers are not to bee had in all places alike, nor ſo eaſily hired.

It followeth now by good order, as a matter hereunto annexed, to write of the manner how to lay up and keepe corne for ſtore. Some are very curious and indeed over preciſe in this point,
B and namely in building of barnes and garners. For they give order, that in any wiſe their walls be raiſed of bricke, and thoſe three foot in thickneſſe. Alſo, that they be filled top full and cloſed up aloft, that they have no windows at all, nor any place open to let in or admit wind. Others would have windowes, but thoſe onely toward the Northeaſt wind, where the Sunne riſeth in Summer, or elſe into the North: and in any hand the bricke muſt not bee laid with lime, for that it is moſt hurtfull to corne. For as touching oile dregs or lees, how they would have it to bee uſed, I have declared alreadie. Contrariwiſe, in ſome countries they build their garners of timber, and ſet them aloft in the aire hollow from the ground, bearing upon piles and poſts of wood: and ſuch are deviſed of purpoſe with many ouvertures on every ſide to receive wind, inſomuch, as from beneath alſo the bourds and plankes bee open to take all aire. And yet others
C there bee who miſlike altogether theſe kind of frames, being of this opinion, That in ſuch ſolars and lofts reared ſo high into the aire, the corne will diminiſh and wither: yea, and if it lie neare to a roufe of tiles, it will bee in daunger to catch a fire and burne. There bee that would not have corne to bee turned in the garner, for to breath and take the wind: for that the mite or weevill that eateth graine, never commeth within foure fingers of the bottome of the heape, ſo that beneath that gage there is no danger, and therefore it needs no ſuch ſtirring at all. *Columella* ſaith, That it were good to have a garner open into the Weſt, for that the wind Favonius is kind for corne: whereat I marvaile very much, conſidering that otherwiſe he is carefull to ſeeke out the drieſt places. Laſt of all, there be ſome that would have a land-toad tied by one of her hinder or longer legges, and ſo to hang at the dore and entrie of the garner or barne where
D corne lieth. For mine owne part, if I ſhould ſpeake what I thinke, I hold, that the cheefe and principall thing for the keeping of corne well, is to know and uſe the verie fit time and ſeaſon of laying it up. For if it bee gathered when it is not fully ripe, and before it have the due parching from the Sunne, and the firme ſubſtance hardened as it ought, likewiſe if it bee brought unto the barne or garner hote, it cannot bee avoided, but vermine will breed therein to doe it much hurt.

That ſome kind of graine will continue good and ſound, yea, and laſt longer than other, there bee many cauſes. For either it proceedeth from the skin or huske, when it is manifold, as in Millet; or the fatneſſe of the marrow and floure within, which maintaineth and feedeth the graine as the radicall and nutritive humour, as in Seſama; or laſtly, of bitterneſſe, as in Lupines
E and the ſmall bitter Cichets. As for the Frument or wheat Triticum, apt it is moſt of all other to engender and breed weevils and ſuch like wormes, becauſe it ſoone catcheth a heate, and is quickly enchaufed, by reaſon of the thicke and faſt ſubſtance of the owne, and beſides encloſed and clad it is within a thicke and groſſe skin, which is the bran. Barley hath a finer and ſlenderer huske: and ſome Pulſe a thinner than it: ſuch therfore are not ſubject to the ſaid vermine. Howbeit, Beanes bee covered with thicke pillings or tunicles, and therefore eaſie to take an unnaturall heat and putrifie. Some uſe a deviſe to keepe Frument corne a long time, with oile lees, beſtowing onely the ſprinckle of one Quadrantall, to a thouſand Modij thereof. Others beſtrew among it the pouder of Chalke brought either from Chalcis or Caria; or elſe lay ſome
F Wormewood among it. There is a kind of earth in Olynthus and Cerynthus within Eubœa, which is highly commended in this caſe, for it will not ſuffer corne to corrupt. And lightly, what corne ſoever it be that is laid up in the eare, never taketh any harme, keepe it as long as you will. Howbeit, the beſt and moſt aſſured way to preſerve corne, is in caves or vaults under the ground, which in Latine be called Siri, as the practiſe is in Cappadocia and Thracia. In Ægypt and Barbarie, above all things they looke to this, That their garners ſtand upon a drie ground:

and how drie ſoever the floore be, yet they lay a courſe of chaffe nnderneath betweene it and the corne. Moreover, they put up their corne in garners and bins, togither with their ſpike or eare: by which deviſe they are ſure (if no aire come in) that no hurtfull worme or vermine will breed among it. And verely *Varro* ſaith for certein, That wheat in that manner laid up, will laſt fiftie yeeres, and Millet an hundred. Hee affirmeth moreover, that beans and other pulſe will keepe good a long time in oile barrels, if they bee calked with aſhes. Hee avoucheth moreover, that beans were knowne to have continued from the time wherein king *Pyrrhus* lived, unto the Pyrats warre, which under the conduct of *Pompey* the Great was diſpatched and brought to an end; which proviſion of beans had been laid up 120 yeares before, and kept cloſe in a certaine cave under the ground, within the cittie of Ambracia. The Cich peaſe is the only graine that is ſubject to no vermin breeding in it while it lyeth in garner or barne. Some there are who take certeine pitchers of earth having vinegre in them, upon which beeing well bedded in aſhes and done over with pitch, they make their heaps of pulſe, and by this meanes they are verily perſuaded, that no meevils, mites, or other wormes will breed therein to doe harme. Others, for to preſerve their pulſe, put them into ſalt-fiſh barrels, but they dawbe the ſame firſt with a certain kind of mortar made of plaſtre. Laſt of all, for to keepe Lentils, there be that drench them with the vinegre confected with Laſerpitium, and when they bee dried againe beſmeare them over with oile. But will you have indeed one ſhort rule for all? To be ſure that no worme or vermin ſhall breed in your corne, cut it downe and gather it about the chaunge of the moone. Therefore it skilleth very much to know a mans intention, whether hee meane to keepe or to ſell his corne: for certein it is, that as the moone groweth, ſo doth corne wax full and great, and therefore filleth the ſtrike a great deale better.

Chap. xxxi.

Of Vintage: and the particular ſeaſons in Autumne.

According to our partition of the yeare into four quarters, it followeth now by courſe and order, to treat of the Autumne, which beginneth at the retreat or occultation of the Harp-ſtar Fidicula; and ſo forward to the Æquinox in September: from whence I will proceed to the couching or going down of the Brood-hen Vergiliæ, the very beginning & firſt entrance of the winter. In which meane ſpaces and equall diſtances, both before & after the ſaid Æquinox, theſe ſtars following are ſignificant, and ſet out the particular ſeaſons: Firſt, the day before the Ides of Auguſt, [*i.* the twelfth of the month] the ſtar called the Horſe, appeareth in the Hæmiſphære to the people of Attica: but at eventide the ſame day, the Dolphin ſtar ſetteth to them in Ægypt, and likewiſe to us here in Italy, according to *Cæſars* account. Alſo eleven daies before the Calends of September, which is the 22 day of Auguſt, (by the calculation of *Cæſar* and the Chaldæans) the ſtar named in Latine * Vindemiator, *i.* the Vintager, beginneth to ſhew in the morning, both to the Aſſyrians and the Italians; a truſtie vaunt-curriour, bringing certaine tidings with him, and promiſing aſſured hope of a vintage, and that the grapes will be ripe anon: and for a farther token and apparence thereof, marke the grapes then, for now begin they to chaunge colour. To the people of Aſſyria, the fifth day before the Calends of September, *id eſt*, the 28 of Auguſt, both the ſtar Sagitta ſeemeth to goe downe, and withall the Eteſian winds lie, and give over blowing. The Vintager himſelfe, to wit, the ſtar ſo called, to the inhabitants of Ægypt riſeth upon the Nones of September, *i.* the fifth day of the month: upon which day to the people of Attica, the ſtar Arcturus riſeth in the morning; and the Sagitta, *i.* the Shaft, goeth downe in the evening. To come now to the Ides of September: five daies before them, that is to ſay, the ninth day of the moneth (after *Cæſars* card) the ſtar called Capella, *i.* the Kid, ſheweth it ſelfe here in Italy toward evening: but the day before the ſaid Ides, *i.* the twelfth day of the moneth, the one halfe of Arcturus appeareth to riſe: and then for five daies togither (his influence is ſuch) he keepeth ſuch foule worke both by ſea and land, that both Sailer and Husbandman feele the violence of his arrivall: and this reaſon is given therof; For if (ſay they) at the fall or occultation of the Dolphin ſtar, there be no ſhowres of raine, none will Arcturus bring with him at his comming. An evident ſigne there is, that the ſtar Arcturus will not be long before he ariſe, and that is this, The departure of the Swallowes: for this is certein, if hee chaunce to ſurpriſe any of them, and that they be not gone before out of the countrey, they are ſure to pay for their

* rather, *Provindemiator*, *i.* the forerunner of the vintage, προτρυγητὴρ: for *Vindemiator* followeth afterward in September.

A their long tarrying and to die for it. The ſixteenth day before the Calends of October, which is the ſixteenth day of September, the ſtar called Spica, *i.* the Eare of corne, which the ſigne Virgo (*i.* the Virgin) holdeth in her hand, riſeth in the morning to them in Ægypt; and then the Eteſian winds alſo are quiet and laid in that countrey. Howbeit after *Cæſars* calculation, this falleth out upon the fourteenth day before the Calends of October, *i.* the 18 of September, to us in Italy: and by the account of the Chaldæans, a day after to them that dwell in Aſſyria. Moreover, the 21 of September (after the ſupputation of *Cæſar*) the Knot of the two fiſhes, a ſigne or ſtar ſo called, goeth downe to our ſight in Italie; like as the very Æquinoctiall ſtar it ſelfe three daies after. After which time, *Philippus*, *Calippus*, *Doſitheus*, *Parmeniſcus*, *Conon*, *Criton*, *Democritus*, *Eudoxus*, and *Ion*, agree all in this, (and that is marveile to ſee ſo many Aſtrologers to accord)

B That foure daies before the Calends of October, the ſtar Capella, *i.* the Kid, riſeth in the morning: and the morrow after, the [two] Kids doe the like. The ſixt day before the Nones of October, which is the ſecond day of the moneth, in Attica and the regions adjoyning, the ſtar named the Crowne appeareth betimes in the morning: but in Aſia, and to us Italians (after the reckoning of *Cæſar*) the next day following, the ſtar Heniochus goeth downe in the morning. Two daies after that, to wit, the fifth of October (according to *Cæſars* computation) the ſtar named Corona, *i.* the Crowne, beginneth to ſhine in Italie: the next day after, the ſtars called the Kids, looſe their light in the evening. The eighth day of October, which is eight daies before the Ides thereof, the ſhining ſtar within the foreſaid Corona, ſheweth it ſelfe in Italie, by *Cæſars* booke: but the 13 day of the ſame moneth, the ſtar Vergiliæ, *i.* the Brood-hen, ſheweth in the evening:

C and vpon the very Ides, which is the 15 day of the moneth, the Crowne ſtar aforeſaid appeareth full and whole. Now ſix daies before the Calends of November, *i.* the 27 of October, the ſtars called Suculæ, or the rainie Hyades, begin to ſhew in the evening: and the laſt day of October, which is the even of the Calends of November, (if *Cæſar* ſay true) Arcturus ſetteth in Italy, and the ſaid Suculæ or Hyades riſe the ſame day togither with the Sunne. Foure daies before the Nones of November, *i.* the ſecond day of the moneth, Arcturus goeth downe in the evening: like as the fift day before the Ides, *i.* the ninth day of November, the ſtar named Orions ſword beginneth to retire: and likewiſe two daies after, the Brood-hen Vergiliæ is hidden and appeareth no more.

As touching now the countrey worke that Husbandmen are to employ themſelves about du-

D ring this ſpace of time or halfe quarter thus deſcribed, they ought if they did well, to ſow Navewes, Turneps, and Radiſhes, upon thoſe daies that I have appointed heretofore: and let them never goe by the voice of the rurall ſort, who thinke it not good to ſow ſo much as Rapes, after the departure of the Storke: for bold may we be here in Italy, even after the feaſt Vulcanalia to put them into the ground; as alſo our early white corne, togither with Panicke. But after the going downe of the Harpe-ſtar, good I hold it to ſow Vetches, Phaſeols, or Kidney-beans; as alſo the dradge or bollemong for horſes, called Pabulum, *i.* Forage: howbeit, folke ſay, that this forage would not be ſowne but about the new moone. This is the time alſo to ſtrip green leaves, and ſlip tendrons from trees, thereof to make fodder for beaſts in winter: and one good daies worke it is for a man to fill foure hampers made of purpoſe for ſuch brouſe, Now if theſe leaves

E be gathered and prepared before-hand when the moone is in the wane, they will never corrupt and putrifie. Greene muſt this brouſe be in any wiſe when it is gathered, and not ſeere or withered.

To come now unto Vintage: men thought in old time that it was not readie nor the grapes ripe enough, before the Æquinox in September: but now adaies I ſee how they goe to worke every where ſooner, and fall haſtily to gather grapes halfe ripe. Therefore it were not amiſſe to ſet downe certaine markes and ſignes to direct the husbandman for this ſeaſon. The rules therefore to guide him, be theſe: Gather no grapes hot, that is to ſay, when they be drie, nor unleſſe a good ſhowre of raine come betweene: yet take heed you muſt, that you plucke them not full of dew, namely while the dew that fell over night, doth ſtand upon them; nor before the Sun hath

F drunke up the ſaid moiſture, and dried them. Set into thy vintage hardly and fall to gathering, when either the vine leaves or greene braunches called the Portoirs, doe fall and reſt upon the old wood: or when, after you have taken one grape from the reſt of his fellowes ſtanding thicke togither in the cluſter, you ſee the void place not to fill up againe, whereby it appeareth that the grapes and kernels about it, grow no more. Very good it is for grapes, if they be gathered when

the moone is croiſſant, to wit, before the full. At one preſſing ordinarily, there ſhould be filled twentie meaſures called Culei, *i.* Cowles: now is this meaſure for liquors the greateſt of all others, and by which the reſt ought to be proportioned juſtly. For to preſſe thus many cowles at once, and to ſerve twentie acres of vineyard, one wine-preſſe is ſufficient; and likewiſe to hold the ſame, one veſſell or keelvat. Some uſe but one planke or ſtocke to preſſe withall, but better it is to have them double: although thoſe that be ſingle be exceeding huge. As touching theſe preſſing plankes, it is not ſo much their thickneſſe and maſſive ſubſtance that is to be regarded, as their length; for in deed the longer and larger they bee, the better they doe their deed. In old time they uſed ropes, leather thongs, and leavers, and by force of them pulled downe and forced hard the preſſe-planks. Within this hundred yeares were the frames deviſed which wee call Græcanica; wherein the maine planke or upper ſtocke of the preſſe, went with a vice in manner of a skrew; for the wrinkles of the ſpindle were fitted and ſerved in an engin or windlace in manner and forme of a ſtar, ſet faſt to the worme or vice of the ſpindle aforeſaid, and which as it was turned and wreſted, lifted up or let downe the preſſe-planke or lid, togither with the weights of ſtones thereupon: and verely this faſhion of preſſes was held to bee beſt and moſt approoved. Howbeit, it is not 22 yeares ſince there came up another deviſe and invention to make ſmall preſſe-planks; leſſe winding peeces alſo, and the whole frame ſhorter: howbeit in the mids ther-of ſtood up the ſpindle of the ſaid skrew or vice. Now when they purpoſed to ſquize out the grapes, they laid certain lids or planks thereupon called Tympana, and thoſe they forced with a wreſt from aloft, uſing alſo the poiſe and weight of ſuch matters as they heaped upon the planks aforeſaid.

* *Culeus* containeth 20 Amphors, which is 320 *Congij* or gallons.

Moreover, the cuſtome is to gather apples and ſuch like ſoft fruit, about this time, with this obſervation or direction, namely, To go in hand with this buſineſſe when any are ſeene to fall of themſelves, as mellow and ripe, and not blowne downe by force of wind and tempeſt. Now is the ſeaſon alſo to preſſe out the lees or ſediment of the grapes: now the time ſerveth to ſeeth new wine to the halfe, and make cuit thereof; with this regard and conſideration, that if the moon be upon the chaunge, this be done by night; but if in the full, by day-light. As for other daies, it matters not much, ſo that the cuit be boiled either before the moone riſe, or after ſhe be gone downe. Moreover, heed is to be taken, that the grapes of yong vines or ſuch as grow upon low and mariſh grounds, be not uſed hereabout; and much leſſe thoſe that be not fully ripe. In the ſcumming alſo and clarifying of the liquor while it boileth, no other thing but leaves are meet for that purpoſe: for if any wood come neare and touch the veſſell or lead wherein the liquor is ſodden, it is thought that the cuit will be ſmoakie and ſmell of the fire. Furthermore, the ordinarie time of vintage holdeth 44 daies, to wit, from the Æquinoctiall in September, unto the going downe or occultation of the Brood-hen Vergiliæ: after which time, remember the oracle and common proverbe, That wine veſſels are not to be roſined, calked, and trimmed in cold; for good husbands would do this before-hand in hot weather. Howbeit in theſe daies I have ſeen thoſe that for want of veſſels have gone in hand to tun up their wine in the beginning of * Ianuarie: yea I have knowne when the vintage hath been ſo great, that wines newly preſſed have been kept in fiſh ceſterns: and for default of other pipes and tuns, when the wine-cellars have been full alreadie, I have ſeen them that would let the old run out into ſuch ceſterns, for to make room for the new, and ſuch as a man would ſay were neither made nor unmade. And yet this is not ſo often practiſed by occaſion of the exceeding ſtore of new wine that lyeth upon mens hands, as of a wicked and covetous mind that ſome carie to gather a deale togither for to ſet up a monopolie, thinking thereby to make a dearth and to raiſe the price of their wines, to the great detriment and hinderance of a common-weale. But a good and honeſt minded houſholder will reſt contented to furniſh himſelfe with a competent proviſion of wine, and lay up no more than he ſhall ſpend every year: and this is found alſo by experience the moſt profitable way for his purſe. As for all other matters concerning wine, becauſe I have alreadie ſpoken at large thereof, I will here lay a ſtraw and make an end. But this would not be forgotten, that ſo ſoone as grapes be gathered, men muſt high them apace and make haſt to get in their Olives: for preſently after vintage and wine-preſſing, they muſt thinke of drawing their oile, and employ themſelves in other workes of this ſeaſon, which are to bee done a little before and after the retreat of the Brood-hen ſtar Vergiliæ.

* Some read, November.

CHAP.

A

Chap. xxxii.

The conſideration of the Moone and her courſe, reſpective unto Husbandrie.

HEreunto ſhall bee annexed a diſcourſe as touching the Moone and the Winds, together with the Prognoſtication depending thereupon, as much as may bee thought neceſſarie and pertinent to Agriculture; to the end, that our ruſticke Aſtrologie may in all points be accompliſhed and perfect. For *Virgil* alſo was of this opinion, That ſome buſineſſe and workes of Husbandrie were to be digeſted and divided juſt according to the daies of every Moon in or-
B der as they goe, following herein the vanitie and oſtentation of *Democritus*. For mine owne part as I have hitherto in all my worke throughout reſted upon the good and profitable rules of our auncestors, ſo in this point alſo I meane to take their direction, and goe by no other. According to their ordinances and precepts therefore, this firſt is to be obſerved, That whatſoever is to bee cc
cut, gathered, or laid up, be it wood, fruict, or graine, it ought to be done rather in the wane of the cc
Moone, than whiles ſhe is croiſant toward the full, & leſſe daunger is it ſubject unto. *Item*, Touch cc
no mucke, nor lay it upon thy lands but after the full, when ſhee is in the wane. *Item*, Dung thy cc
ground, whiles the Moone is in conjunction with the Sunne, and in the firſt or laſt quarter. Gueld cc
Bores and Steeres, lib Rams and Kids or young Goats in the old moone. *Item*, Set Hens to couve cc
egs in the new of the Moone. Make thy trenches by night in the full Moone. Likewiſe, cover the cc
C roots of trees with mould when the Moone is at the full. *Item*, In moiſt grounds ſow and ſet either cc
in the very chaunge, or foure daies before and after. As for the winnowing, vanning, and laying cc
up either of corne or pulſe, they would have it done in the old Moone, about the laſt quarter. As cc
alſo, That Pepiniers, Seminaries or Nource-gardens, be made when the Moon appeareth above cc
the earth. But grapes ought to be troden, and new wine preſſed, whiles ſhee is under our horizon. cc
Likewiſe, timber is to bee hewed, and many things elſe to bee done accordingly, whereof wee have written alreadie in their ſeverall places. And albeit the obſervation of the Moone, her age and chaunge is eaſie ynough, and nothing more familiar: whereof alſo I have written ſufficiently in the ſecond volume of this worke: yet further to inſtruct the ſimple countreyman who knoweth never a letter of his booke, and to ſet before his eies the true order and courſe of her moti-
D on and mutation, let him but obſerve and marke thus much, That ſo often as ſhe is ſeene Weſtward after the Sunne is gone downe, and ſhineth the forepart of the night onely, ſhe is croiſant, and in her firſt quarter, and then ſhall a man diſcerne evidently by the eie the one halfe of her bodie light: but looke when, as the Sunne ſetteth in the Weſt, ſhe riſeth at the ſame inſtant over-againſt him in the Eaſt, ſo as they may be both ſeene at once, be ſure ſhe is in the full. Againe, whenſoever ſhee riſeth late in the Weſt, and ſhineth not in the fore-part of the night, but toward the morning, make account ſhee is in the wane, and ſheweth but her halfe part againe. But ſo long as ſhee appeareth not at all, and giveth no light, aſſure your ſelfe ſhee is in the conjunction with the Sunne all that while, and this in Latine is called Interlunium, [i. the change.] Now at the verie inſtant of her conjunction or chaunge, and the firſt day, untill ſhe bee one day
E old, ſhee will remaine above the earth ſo long as the Sunne is there alſo with her: the ſecond day ſhe will bee in our hemiſphære by night, tenne * twelve parts of an houre, and a quarter of one * 51 minutes & 1/2.
twelfth part. Thus in proportion will ſhee riſe unto the fifteenth day after her chaunge, multiplying everie day the ſaid portion of the houres. When this fifteenth day is come, ſhee will be all the night whole above the earth, and all day long under. Vpon the ſixteenth day of her age ſhee will remaine beneath our Hemiſphære, after the firſt day, tenne parts of twelve, and one quarter of a twelfth part within night before ſhee riſe and ſhew her ſelfe, and ſo will ſhee keepe daily the foreſaid proportion juſt, in late riſing: deminiſhing ſtill her light by the ſame degrees, untill the chaunge. And looke how much ſhee ſtaieth in the beginning of the night under the earth ere ſhee appeare in our Horizon, ſo long in the next morning will it bee after day-light,
F ere ſhee goe downe. Finally, every ſecond moneth the Moone hath thirtie daies full out: like as each other moneth betweene ſhee wanteth one of that number, and hath but nine and twentie. Thus much concerning the courſe of the Moone in regard of Husbandrie.

Chap.

G

Chap. xxxiii.

The consideration of the Winds, respective to Agriculture.

As touching winds, the reason and quartering of them is more intricate, fuller also of scrupulous doubts and difficulties, than was the observation of the Moone: notwithstanding that, there is not a day in the yeare goeth over our head, but wee may easily find and marke both South and North. For if a man doe observe the Sunne rising any day whensoever hee will, and upon the sixt houre of the same day (to wit at noone) stand so as he have his left shoulder directly turned against the said Sunne rising, he may be assured, that hee hath the South full upon his face, or before him, and the North behind his backe. Now the line or streight way that runneth in this manner through a field North and South, is called in Latine *Cardo. When a man standeth thus, if he would see his owne shaddow, he shall doe well to turn his bodie round about: for otherwise it will be behind him. Chaunging sides therefore, so as he have the Sunne rising or Levant of that day just against his right shoulder, and the setting upon his left, hee may know the mid day or South point as well as before, namely, when his bodie casteth just before him the shortest shaddow, enclining to the one hand no more than to the other. Let there bee then either a small furrow rased along just through the middest of the shaddow with a spittle spade, or the point of some hooke; or else a line drawne with a traine of ashes, for the length of some twentie foot or thereabout (to make the thing more plaine.) Which done, cut the said line or furrow crosse overthwart the middle, to wit, at the tenth foot, if the whole bee twentie: and then make a round small circle about it, which may serve in steed of a Navill, and bee so called. That part of the line then which goeth directly forward from the crown of the head in the foresaid shaddow, pointeth out the North wind. Thou therefore that art to lop or prune trees, take heed thou makest not thy cuts so, as they looke into that coast: neither let thine hortyards or vineyards stand open to that wind, unlesse it be in Affricke, Cyrene, and Ægypt. Againe, so long as the wind sits in that corner beware Ploughman [for now I speake to thee] thou breake up or eare no ground, nor enter into any such worke in the field as thou art alreadie forbidden by mee to doe. But marke what part of the line shall come from the foresaid Circle straight before thy feet, regarding the noone-tide or mid-day, assure thy selfe the same telleth thee which is the South wind, called by the Greekes Notus, as we have declared alreadie. Doth the wind rise and blow from that side? meddle not Husbandman during that time with thy vine. Carpenter, fell no trees then for timber I advise thee. A wet wind this is and hote, within the climate of Italie. In Affricke verily drie ynough it is, and bringeth faire weather with it, but with all his faire looks, he kindleth fire otherwhiles, and burneth many things. Let hardly the Vine spread her braunches, and run into this wind, in all places of Italie: but leave not the cuts either of tree or vine looking that way. He that setteth out a plot of ground for Olives, and planteth them, hath cause to bee afraid of this wind, especially for foure daies together, about the rising or apparition of the star Vergiliæ or Brood-hen. They also that graffe tions in the stocke by cleft, or set bud in the scutcheon by way of inoculation, must take heed how they meddle in this wind.

H

*Vitruuius & citratus veteribus

I

K

Moreover, it will not be amisse to give some caveat as touching the very houre of the noone-day, which giveth us knowledge of this wind and this quarter; namely, what is to be done at such a time, and what not? Thou woodman and forrager both, see thou neither cut nor lop trees, see thou gather no greene leaves and tendrils for thy fodder at noone-tide. Thou sheepeheard, thou heardman whatsoever, when thou perceivest in Summer time by thy shaddow growing short, that noonestead is at hand, drive thy sheepe and cattaile out of the Sunne, into some worme-stall and place of shade. More yet I have to say to thee, If thou keepe sheepe or other beasts at their pasture in Summer time, lead them or drive them before thee all the morning into the West, before mid-day; but after noone turne thy face Eastward with thy flocke and thy heard. Otherwise, and at other seasons, as namely, all Winter and in the Spring, thou shouldest doe thy cattaile hurt, to conduct or lead them after this manner out of the warme Sunne into moist places, and where the dew faileth. As charie also and heedfull must thou be to drive thy cattaile Northward from the Sunne, and there to let them graze: for marke what I say, In so doing, they will not bee able to hold open their eies; this wind will make them bleared & bloudshotten; nay, it will drive them into a gurrie or flux of the bellie, which will soone make an end of them. Howbeit, if thou wouldest

L

M

A wouldeſt have the beaſts conceive and bring forth females, force them when they be leaped and covered, to ſtand with their heads into this wind, and thou ſhalt ſee the proofe hereof.

Chap. xxxiiii.

Of the lines and limits that divide and bound fields.

WEe have ſhewed in the next chapter before, the manner how to draw a line or furrow North & South; and how in the midſt therof there ſhould be a round compaſſe, made manner of a Navill, which in Latine is called Vmbilicus. Now if you would know likewiſe the other parts of the heaven, let there run ſuch another line overthwart the Navill or Cir-
B cle juſt in the middeſt: and then ſhalt thou ſee, that this line will direct thee to the Eaſt and Weſt points, Æquinoctiall. [Now the way that thus cutteth through any field Eaſt and Weſt, ought to bee called Decumanus in Latine, or the Broad-way.] Which done, draw other two lines through the centre of the foreſaid circle, cutting one another aſlant [like S. *Andrewes* croſſe] in manner of the letter X, ſo as that line which at the one end pointeth to the right hand of the North, reach to the left hand of the South at the other. Likewiſe, that which regardeth the left ſide of the north at the one end, run directly to the right hand of the South with the other. All theſe lines muſt be of an even length, of equall diſtance one from another, and paſſe through the ſame Circle which we call the Navell. Having thus made the foure croſſe pathes or waies in every field once for all, thou maiſt ever after know how the winds doe ſtand. But if thou liſt to have ſuch a deviſe to ſerve
C thy uſe many times after, make a little inſtrument of wood, but the ſame as round as can bee by the compaſſe, and therein draw or print foure lines of an even length and equall diſtance, paſſing as Diameters all through the center, to the circumference of the rundle: and this may ſerve thee in ſtead of a Quadrant, where & whenſoever thou needeſt. The manner how to make and uſe this inſtrument, I am content thus to ſhew, becauſe I have to deale with ſimple ignorant men of dull wit and ſhallow conceit, who may ſoon erre & do amiſſe. Let us ſee then firſt, for the meridian line and the South point of the noone day, for to bee perfect therein; becauſe it is ever the ſame, and chaungeth not from one end of the yeare to another, whereas the Levant varieth every day, for that the Sunne never riſeth the morrow morning, from the ſame point juſt that hee roſe the day before: which I note, leaſt haply any man ſhould take one certaine line for to point out the
D Sunne riſing or the Eaſt, and make his Quadrant or compaſſe thereby. Now when thou haſt in this wiſe exactly ſet out the principall regions and quarters of the heaven, obſerve this, that the end or head of the line which is next to the North point Septentrio: on the Eaſt ſide, the ſame ſheweth the very place where the Sunne riſeth at the Summer Sunneſtead, to wit, the longeſt day of the yeare; and the wind there ſeated, is called in Latine Aquilo, *i.* the Northeaſt wind, and in Greeke Boreas. Thou knowing this perfectly, ſet thy trees and plant thy Vines full upon it. But ſo long as this wind bloweth, plough no lands, ſet no trees or plants that are to beare fruit, caſt no graine nor ſeed into the ground. For why? this wind peirceth, pincheth, and killeth the heart of any tree root above the ground, that thou ſhalt bring to replant. Take warning therfore beforehand, and be adviſed: for Experience hath taught, That one thing is good for ſtrong and
E ſturdie trees, and another for young and tender plants. Neither am I ignorant or forgetfull, that the Greekes have placed in this corner the wind which they name Cæcias: but *Ariſtotle* himſelfe a Philoſopher of an infinite ſpirit and high conceit (the man that hath ſo done) ſheweth a reaſon drawne from the convexitie and bending cope of the heaven, whereby the Northeaſt wind or Aquilo bloweth full oppoſite to the Southweſt Africus. Howbeit, the Husbandman is not afraid of this Northeaſt wind Aquilo all the yeare long, in thoſe particularities whereof hee is forewarned. For in the middeſt of Summer this wind doth moderate and temper the ardent heat of the ſtars raining and raging in that time: then chaungeth he his name, and [during the Dog-daies] is called Eteſias. When thou therefore feeleſt him blow cold, take heed and be not too bold. But learne this withall, that howſoever this wind may doe harme, in ſome ſuch reſpect, for which thou
F art forewarned; yet the wind Septentrio that bloweth plumbe North, is far more daungerous and miſchievous than he. Againſt the Northeaſt wind aforeſaid, let both hortyards, tree-rows, groves, and vineyards, be raunged; in all Natolia, Greece, Spain, maritine coaſts of Italie, Campain, and Apulia. If thou deſireſt to breed males, keepe thy cattell with their heads into this wind, and in that ſort let the females be covered.

Dextratus & Siniſtratus, Antiquis.

When

When thou haſt found out in this manner the Northeaſt wind Aquilo, be ſure that the wind which bloweth full againſt it, from the point where the Sun ſetteth in mid-winter when daies be ſhorteſt, is the Southweſt, called in Latin, Africus; and in Greeke, Lybs. Obſerve this wind well, for if a beaſt after ſhe be covered, turne about directly into this wind, ſhee will for certaine conceive a female. And thus much of the Line in thy quadrant next to the North point on the Eaſt ſide.

The third Line from the North point (which we drew firſt through the latitude of the ſhadow beforeſaid, and which we called Decumana) pointeth out the Æquinoctiall Sun-riſing in March and September; directeth thee alſo to the Eaſt wind under it, called in Latine Subſolanus, and in Greeke Apeliotes. Where the climat is healthfull and temperate, let vineyards be planted and arraunged into this wind: let ferme-houſes alſo in the countrey be ſo built, as the dores and windowes open into it. This wind loveth well to be dropping, and to diſtill gentle ſhowres of raine; howbeit dryer it is than the Weſt wind Favonius, which bloweth over-againſt him from the Æquinoctiall ſun-ſetting full Weſt, called in Greeke * Zephyrus. Vpon this Weſterne wind, Olive rowes ſhould ſtand, according to *Catoes* mind: this wind is hee that beginneth the Spring: this wind openeth the veines and pores of the earth, and with his mild coldneſſe is healthfull and holeſome for all plants, for man alſo and beaſt. This wind governeth this whole ſeaſon, and preſcribeth the time for pruning vines, for ſarcling and dreſſing corne, for planting trees, for graſſing fruit, for trimming and ordering Olives; and to ſay all in one word, ſo kind he doth breath, that he cheriſheth and foſtereth the earth, and all things thereupon.

* ζεφύρους. *Homer.*

The fourth Line in your Quadrant or Compaſſe (reckoning from the North point, which alſo reacheth next to the South point on the Eaſt ſide) noteth the Sun-riſing in mid-winter when the day is ſhorteſt; and withall the Southeaſt wind called in Latine Vulturnus, and in Greeke Eurus; which as it is a drier wind than the two laſt named, ſo is it alſo warmer: in regard whereof, it is good to ſet bee-hives and plant vines tending into this coaſt, I meane in other parts of Italy remote from the ſea, and alſo in Gaule. Then ſhall you have to blow full oppoſite unto it, the wind Corus, directly from the ſun-ſetting in mid-ſummer when the day is longeſt, by-weſt from the North; and this Northweſt wind the Greekes call Argeſtes: one of the coldeſt he is, like as all they be which blow from any point of the North. No marveile therefore if hee be as much dread & feared as the North wind Septentrio, for commonly he bringeth with him haile ſtorms good ſtore.

As touching the Southeaſt wind Vulturnus, if the coaſt be cleare where and when he beginneth to riſe, it will not be long ere he lie, and commonly he is downe before night: but the Eaſt wind in deed continueth moſt part of the night. But be the wind what he will be, if he blow ſenſibly hot, you ſhall have him hold many daies togither. And to conclude, would you know when to have a Northweſt wind? marke when the earth drieth ſuddainly at one inſtant, it will not bee long but he will be with you: contrariwiſe, when you ſee the ground moiſt and wet with a kind of ſecret dew unſeene and unknowne, reckon upon it that ſhortly you ſhall have a South wind to blow. And thus much for Winds.

Chap. xxxv.

Signes to prognoſticate what weather is toward.

HAving thus ſet downe ſufficiently a diſcourſe of the Winds, becauſe I would not reiterate one thing often, what remaineth now, but in good order to paſſe and proceed to the prognoſtication and foreknowledge of the weather? and the rather, for that I ſee that *Virgil* tooke great pleaſure herein and ſtood much upon this point: for thus he relateth unto the rude and ignorant men of the countrey, That oftentimes in the very mids of harveſt, hee hath ſeene whirle-puffs and contrarie winds, encounter and charge one another as it were in battaile, doing much harme to corne. Moreover, it is reported, that *Democritus* at what time as his brother *Damaſus* was entred well into harveſt-worke, taking the opportunitie (as he thought) of a moſt hot ſeaſon, beſought him earneſtly to let the reſt of his corne to ſtand ſtill a while longer, and to make haſt to get that into the barne under roufe which was cut and reaped downe; & this he did without any reaſon by him made, why and wherefore. And what enſued hereupon? Surely within few houres after, there powred downe a mightie ſhowre of raine, and prooved *Democri-*

tus

A *tus* to be a wiſe man and a true prophet. Moreover, it is a rule commonly given and obſerved; That neither Reeds would be ſet and planted but toward raine, nor corn ſowed but againſt a good ſhowre. And therefore ſince this skill is of ſuch importance, I am content briefly to touch thoſe ſignes that foreſhew what weather will be, and make choice of ſuch which by ſearch and experience are knowne principall and make moſt for this purpoſe.

And firſt begin I will at the Sun, the beſt prognoſticator of all others: When he riſeth cleare and not fiery red, it is a ſigne that the day will be faire; but if he ſhew pale and wan, it preſageth a cold winter-like haile-ſtorme that very day: but in caſe hee went downe over-night cleare and bright, and ſo roſe the next morning, ſo much ſurer may you bee of faire weather. If the Sun in riſing ſeeme hollow, he foretelleth raine: and when before his riſing the clowds be red, the winds
B will bee aloft that day: but in caſe there be ſome blacke clowds intermingled among, you ſhall have raine withall. If the raies and beames of the Sun be red, both when he riſeth and when hee ſetteth, there will fall good ſtore of raine. Are the clowds red about the Sun as he goeth down? you ſhall have a faire day the morrow after. If when the Sun doth riſe you ſee flying clowds diſpearſed, ſome into the South and others Northward (ſay all be cleare and faire otherwiſe about him) make reckoning that day of wind and raine both. Marke at his riſing or going downe, if his beames be ſhort and as it were drawne in, be ſure of a good ſhowre. If at the Suns ſetting it raine, or that his raies either looke darke and blew, or gather a banke of clowds, ſurely theſe be great tokens of tempeſtuous weather & ſtorms the morrow after. When in his riſing the beams ſhine not bright and cleare, although they be not over-caſt with a clowd, yet they portend raine.
C If before he riſe, the clowds gather round togither like globes, they threaten ſharpe, cold, and winter weather: but in caſe hee drive them before him out of the Eaſt ſo as they retire into the Weſt, we have a promiſe thereby of a faire time. If there appeare about the bodie of the Sun, a circle of clowds compaſſing it round, the nearer they come about him and the leſſe light that they leave him, the more troubled and tempeſtuous weather will follow: but in caſe he be environed with a double circle, ſo much more outragious and terrible will the tempeſt be. If peradventure this happen at his riſing, ſo as the ſaid clowds be red againe which compaſſe the Sunne, looke for a mightie tempeſt one time or other of that day. If haply theſe clowds encloſe him not round, but confront and ſeeme as if they charged upon him, looke from whence they come, from that quarter they portend great wind: and if they encounter him from the South, there
D will be raine good ſtore and wind both. If as the Sun riſeth he be compaſſed with a circle, marke on what ſide the ſame breaketh and openeth firſt, and from thence looke for wind without faile: but if the ſaid circle paſſe and vaniſh away all at once equally, as well of one part as another, you ſhall have faire weather upon it. If at his riſing you ſee him to caſt his beams afar off among the clowds, and the mids between be void thereof, it ſignifieth raine. If he ſpread his beams before he be up and appeare in our Horizon, looke for wind and water both. If about him toward his going downe there be ſeene a white circle, there will bee ſome little tempeſt and troubleſome weather that night enſuing: but if in ſtead thereof hee be over-caſt with a thicke miſt, the tempeſt will be the greater and more violent. If the Sun couchant appeare fiery and ardent, there is like to bee wind. Finally, if the circle aforeſaid bee blacke, marke on which ſide the ſame brea-
E keth, from thence ſhall you have bluſtering winds. And ſo an end of the Sunne and his prognoſtications.

Now by right, the Moone challengeth the next place for her preſages of weather to come. Firſt and foremoſt, the Ægyptians obſerve moſt her Prime, or the fourth day after the chaunge: for if ſhe appeare then, pure, faire, and ſhining bright, they are verily perſuaded that it will bee faire weather: if red, they make no other reokoning but of winds: if dim and blackiſh, they looke for no better than a foule and rainie moneth. Marke the tips of her hornes when ſhe is five daies old, if they be blunt, they foreſhew raine; if pricking upright and ſharpe pointed withall, they alwaies tell of winds toward: but upon the fourth day eſpecially, this rule faileth not, for that day telleth trueſt. Now if that upper horne of hers only which bendeth Northward, appeare ſharpe
F pointed and ſtiffe withall, it preſageth wind from that coaſt: if the nether horne alone ſeeme ſo, the wind will come from the South: if both ſtand ſtreight and pricking at the point, the night following will be windie. If the fourth day after her chaunge, ſhe have a red circle or Halo about her, the ſame giveth warning of wind and raine. As for *Varro*, hee (treating of the preſages gathered from the Moone) writeth thus: If (quoth he) the new moone when ſhe is juſt foure daies

old,

old, put her horns direct and ſtreight forth, ſhe preſageth thereby ſome great tempeſt at ſea preſently to follow, unleſſe it be ſo that ſhe have a guirland or circle about her, and the ſame cleare and pure; for then there is good hope that there will be no foule nor rough weather before the full. If at the full, one halfe of her ſeeme pure and neat, a ſigne it is of a faire ſeaſon; if it be red, the wind will be buſie; if enclined to blacke, what elſe but raine, raine. Doe you ſee at any time a darke miſt or clowd round about the body of the moone? it betokeneth winds from that part where it firſt breaketh: and in caſe there bee two ſuch clowdie and miſtie circles environing her, the tempeſt will bee the greater: but how if there bee three of them for failing, and thoſe either blacke, or interrupted, diſtracted and not united? ſurely then there will be more ſtormes & more. The new moone whiles ſhee is croiſſant, if ſhee riſe with the upper tip or horne blackiſh, telleth beforehand that there will be ſtore of raine after the full, and when ſhe is in the wane: but if the nether tip be ſo affected, the rain will fall before ſhe be at the full. But what if that blackneſſe appeare in the middle of her bodie between? then (ſaith *Varro*) it will powre of rain in the very full. A full moone having about her a round circle, ſheweth that there will bee wind from that part, where the ſaid circle is moſt ſplendant. If her hornes appeare when ſhe riſeth, more groſſe and thicke than ordinarie, looke ſoone after for a terrible tempeſt and ſtormie weather. If ſhee ſhew not in our Horizon before the prime or fourth day after the chaunge, and the Weſt wind blow withall, then that moone throughout threatneth cold and winter weather: and if the day after the full ſhe ſeeme extraordinarily enflamed, ſhee menaceth unto us ſharpe ſhowres and bitter tempeſts. Finally, in every moone there be eight points and ſo many daies (according as ſhe lighteth upon the angles of the Sunne) which moſt men obſerve onely, and take their preſages of future weather by, to wit, the third, ſeventh, eleventh, fifteenth, nineteenth, one and twentieth, ſeven and twentieth, and the very day of her conjunction or chaunge.

In the third place, a man may know the diſpoſition of the ſeaſons by the fixed ſtars, & therefore it behooveth to obſerve and marke them. They ſeeme otherwhiles in the skie to flit and run too and fro, and then wee ſhall not be long without great winds, riſing from that quarter where ſuch appeared and gave token.

The ſtarrie skie, if it ſhew cleare and bright all over, and in every part alike, during that particular ſeaſon [namely, betweene the occultation of the Harp-ſtar, and the Æquinoctiall point] which I propoſed and ſet downe heretofore, it is a fore-token of a faire and drie Autumne, but yet cold.

If the Spring and Summer both, paſſed not cleare without ſome raine and wet weather, it will bee an occaſion that the Autumne following ſhall be drie, and leſſe diſpoſed to wind; howbeit, thicke, muddie, and enclined to miſts. A faire and drie Autumne, bringeth in alwaies a windie winter.

When all on a ſodaine the ſtars looſe their brightneſſe and looke dim, and that neither upon a clowd nor a miſt in the aire, it ſignifieth either raine, or grievous tempeſts.

If the ſtarres make ſemblance as if they flew up and downe many togither, and in their flying ſeeme whitiſh, they denounce winds from that coaſt where they thus do ſhoot. Now if it ſeeme to the eye, as if they ran and kept one certaine place, thoſe winds will hold and ſit long in one corner: but in caſe they do ſo in many quarters of the heaven, they betoken variable and inconſtant winds, going and comming, and never at reſt. [When you ſee a circle about any of the other five planets or wandring ſtars, you ſhall have powring ſhowres ſoone after.] Within the ſigne Cancer, there be two pretie ſtars which the Mathematicians call Aſelli, [*i.* little Aſſes] betweene which there ſeemeth to be a ſmall clowd taking up ſome little roome, and this they name in Latine Præſepia, [*i.* a Crib, Crafch, Bowzey, or Manger:] now if it chaunce that this Racke or Crib appeare not, and yet the aire be faire and cleare otherwiſe, a ſigne it is of cold, foule, and winter weather. Alſo if the one of thoſe two little ſtars, to wit, that which ſtandeth Northerly, be hidden with a miſt, then ſhall you have the South wind to rage; but in caſe the other which is more Southerly, be out of ſight, then the Northeaſt wind will play his part.

As touching the Rainbow, if it appeare double as if there were two of them at once, it telleth of raine toward. A Rainbow preſently after raine, is a ſigne of faire weather: but this is not ſo certein, neither will it hold long. Alſo, when a man ſeeth new circles ſtill about any planets, there will be much raine ſoone after.

In Summer time, if there chaunce to bee more thunder than lightning, it threatneth winds from

A from that coast where it thundred: contrariwise, if it lighten much & thunder little, looke for rain plentie: when you see it lighten, and the skie otherwise cleare and faire, it is a token that rain and thunder will follow thereupon, yea and rigorous cold weather besides: but the cruellest and most bitter impressions of the aire, ensue upon such lightnings as come from all the foure quarters of heaven at once: if it lighten from the Northwest onely, it betokeneth raine the day following; if from North, it is a signe of wind from thence: if from the South, Northwest, or full West, it happen to lighten in the night & the same be faire, it sheweth wind and rain from out of those coasts: morning thunders foreshew winds; but if they be heard at noone, they presage store of raine.

As touching clouds, if you see the racke ride apace in the aire, the weather beeing faire and drie, looke for wind from that quarter whence those clouds do come; and if they seeme to gather B thicke in that place, dispearsed they will bee and scattered when the Sun approacheth: but more particularly, if this happen from the Northeast, they portend raine; if from the South, storme and tempest: if at the Suns setting the racke seeme to ride from both sides of him into the open aire, they shew of tempests toward: if the clouds be exceeding black, flying out of the East, they threaten raine against night; but if they come out of the West, it will surely raine the morrow after: if the clouds be disparkled many togither out of the East, and flie like fleeces or flockes of wooll, they shew raine for three daies after: when clouds flie low, and seeme to settle upon the tops of the hills, looke shortly for cold weather: contrariwise, if you perceive those tops of mountaines cleare without mist or cloud, the weather will soon take up and turn to be faire: when the clouds seeme to be heavily charged and full, and yet looke white withall (which * constitution of the aire C is called commonly the white weather) there is an haile-storme at hand: moreover, bee the skie never so cleare, the least cloud appearing therein, is enough to engender and foreshew wind and storme: mists if they come downe and fall from the mountains, or otherwise descend from heaven and settle upon the vallies, promise a faire and drie season.

* Some call them Towers.

Leaving the starres and clouds above, let us come to our fires that we make and keepe in our houses here beneath, for they are to be raunged in the next place of our prognostication. If the fire then burne in the chimney pale, and keepe therewith a huzzing noise, wee find by experience that it foresheweth tempest and stormie weather: as also we may be sure of raine, in case wee see a fungous substance or soot gathered about lamps and candle snuffs: if you see the flame either of fire or candle mount winding and waving as it were, long you shall not be without wind. The like is to be said of fire and candle light, if either they seeme to goe out of themselves, or to kindle and take fire with much adoe. Also, when we discerne in the fire a number of sparkles gathered togither and hanging one to another: or if when the pot is taken off from the fire, the coles sticke to the bottome and sides: or when the fire being raked in embres, keepeth a spitting and sparkling from it: also, if the ashes lying upon the hearth grow togither: and last of all, when the live-cole shineth brighter or scorcheth more than ordinarie: all these be signs of raine.

Goe we a little lower to the water, for that element also giveth signes of the weather: and first of all, if you see the sea within the haven, after the floud is gone, in a low and ebb water to bee calme, and yet heare it keepe a rumbling noise within, it foreshewth wind: if it doe thus by times and fits one after another, resting still and quiet between-whiles, it presageth cold weather & rain: *Item*, if in calme and faire weather the sea strond or water banks resound and make a noise, it is a token of a bitter tempest: so it fareth also with the very sea it selfe; for if it be calme, & yet make a roaring; or if the fome therof be seen to scatter too & fro, or the verie water to boile & buble, you may be bold to foretell of tempests: the Puffins also of the sea, [*i.* fishes named in Latin Pulmones] if they appeare swimming above water, do foresignifie cold wether for many daies togither: oftentimes the sea being otherwise calme, swelleth, & by hooving higher than ordinarie, sheweth that she hath wind good store enclosed within her, which soon after will breake out to a tempest.

Let us come aland againe, and marke the disposition of woods and hills: you shall heare the mountains and forests both, keep a sounding and rumbling noise, and then do they foretell some change of weather: nay you shall marke the leaves of trees to move, flicker & play themselves, and yet no wind at all stirring; but be sure then that you shall not be long without. The like prediction is to be gathered by the light downe either of poplars or thistles flying too and fro in the aire; also of plumes and feathers floting upon the water. Goe downe lower to the vales and plaines: if a man chaunce to heare a bustling there, he may make account that a tempest will follow. As for the rumbling in the aire, it is an undoubted signe and token thereof.

Moreover, the verie bruit and dumbe creatures preſage and give warning, what weather there will be. To begin with fiſhes of the Sea: the dolphins playing and diſporting themſelves in a calme water, doe certainely fore-ſhew wind comming from that coaſt whence they fetch theſe friskes and gambols: contrariwiſe, if they fling and daſh water this way and that way, the ſea at that time being rough and troubled, it is an infallible ſigne of a calme and of faire weather toward. The Cuttle or little Calamarie Loligo, launching it ſelfe and flying above the water; the Cockles and Winkles cleaving and ſticking hard to the gravell; the Sea-urchins thruſting themſelves into the owſe and mud, or otherwiſe balaiſed and covered with ſand, be all ſigns of tempeſts neare. The like may bee ſaid of Froggs, when they crie more than their cuſtome is; and of Sea-mews alſo, when they gaggle in a morning betimes extraordinarily: ſemblably, the Cormorants, Gulls, Mallards, and Ducks, when they keepe a proining of their feathers with their bills, foreſhew wind: and generally, when you ſee other water-foule to gather and aſſemble togither and then combat one with another, or Cranes make haſt to flie into the midland parts of the maine. The Cormorants and Gulls flying from the ſea and ſtanding lakes, and Cranes ſoaring aloft in the aire ſtill, without any noiſe, doe put in comfort of a faire and drie ſeaſon: ſo doth the Howlat alſo, when ſhee cries chuitt in rainie weather: but if it be then faire and drie, we ſhall be ſure to have foule tempeſts for it afterwards: Ravens crying one to another as if they ſobbed or yexed therewith, and beſides clapping themſelves with their wings, if they continue this note, doe portend winds; but if they give over between-whiles, and cut their crie ſhort as if they ſwallow it backe againe, they preſage raine and wind both. Iacke-dawes, if it be late ere they returne from their reliefe abroad, foretoken cold and hard weather; ſo doe the white-birds when they aſſemble and flock togither, as alſo when land-foule (and the crow eſpecially) keepe a crying againſt the water, clapping their wings, waſhing alſo and bathing themſelves. If the ſwallow flie low and ſo neare the water, that ſhe flap the ſame oftentimes with her wings, it is a ſigne of raine and foule weather. Semblably, all other birds that neſtle in trees, if they ſeeme to make many flights out, but returne quickely againe to their neſts. Moreover, if Geeſe hold on a continuall gaggling out of all order untunably, a man may gueſſe no better by them, no more than he can of the Heron which he ſeeth heavie and ſad upon the ſands.

And no marveile that theſe river-foules, or generally any other birds of the aire whatſoever, ſhould have a ſecret preſage and foreknowledge of the diſpoſition of the aire; for the very four-footed beaſts of the earth doe make ſhew thereof by their behaviour. The ſheepe and ſuch ſmall cattaile, leaping and playing wantonly, dauncing alſo as untowardly without meaſure, doe teſtifie ſome chaunge of weather: nay the dull and heavie oxen holding up their noſe and muzzles, ſnuffe and ſmell into the aire, yea and keepe a licking againſt the haire [toward raine.] Alſo, when you ſee the foule and filthie hoggs, rend, teare, and fling about them bottles of haie, and yet they care not for it when they have done, becauſe it is no meat for them: likewiſe if you perceive the piſmires or ants either lying cloſe and idle, full againſt their nature (whoſe propertie is to be induſtrious and ever buſie) or encountring one another in battaile-wiſe, or els carrying their eggs abroad out of their holes. Finally, when the mads or earthworms come forth and appeare, a man may be bold to foretell of a chaunge in the weather.

What ſhould I ſay more? It is knowne for certaine, that the Claver-graſſe or hearbe Trefoile will looke rough againſt a tempeſt, yea and the leaves thereof will ſtand ſtaring up as if it were affraid thereof. And to conclude and make an end once of this diſcourſe, whenſoever you ſee at any feaſt the diſhes and platters wherein your meat is ſerved up to the bourd, ſweat or ſtand of a dew, and leaving that ſweat which is reſolved from them, either upon dreſſer, cupbourd, or table, be aſſured that it is a token of terrible tempeſts approaching.

An

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THE HISTORIE OF THE WORLD.

Commonly called,

THE NATVRALL HISTORIE OF C. PLINIVS SECVNDVS.

Translated into English by PHILEMON HOLLAND
Doctor of Physicke.

The second Tome.

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TO THE READER.

FOr as much as this ſecond Tome treateth moſt of Phyſicke, and the tearms belonging thereto (as well concerning diſeaſes as medecines) be for the moſt part either borrowed from the Greeke, or, ſuch as the unlearned be not acquainted with, (which partly upon neceſsitie I was forced, and partly for varietie induced to uſe) I could not content my ſelf to let them paſſe without ſome explanation: For ſince my purpoſe eſpecially is to profit and pleaſure the moſt ignorant (for whoſe ſake *Plinie* alſo himſelfe, as he profeſſeth, compiled this worke) I would not bee ſo injurious unto them as to interrupt their reading with obſcuritie of phraſe, when the matter otherwiſe is moſt familiar. In regard whereof, I thought good to prefixe a briefe Catalogue of ſuch woords of Art, as ever and anon ſhall offer themſelves in theſe diſcourſes that enſue, vvith the explanation thereto annexed, and the ſame delivered as plainly as I could poſsibly deviſe for the capacitie of the meaneſt. In the handling whereof, ſo I may ſatisfie my countreymen that know no other language but Engliſh, I ſhall thinke my paines and labour well beſtowed, and leſſe feare the cenſure of thoſe that haply expect ſome deeper learning: for ever ſtill

the verse of that Comicall Poet resoundeth from the stage in mine ears,

ἀμαθέστερον φρόνησον ἢ σαφέστερον. *id est,*

Speake with lesse shew of learning, so it bee with more perspicuitie. Vale.

A briefe Catalogue of the words of Art, with the explanation thereof.

A

ABort, or *abortive fruit*, is an untimely birth.

Abſterſive, *i.* ſcouring, cleanſing, or wiping away, ſuch as the Greeks call Smectica, and they enter into ſope and waſhing balls.

Acceſſe, *i.* a fit, whether it be of an ague, falling ſickneſſe, or any ſuch diſeaſes as returne at times.

Acetabulum, or *Acetable*, a meaſure among the Romans of liquor eſpecially, but yet of drie things alſo: the ſame that Oxybaphon in Greeke: and for that (as both words do import) they uſed to dip their meats in vinegre out of ſuch, it may well goe for a saucer with us: for it containeth (as ſome thinke) fifteen drams, which grow near to two ounces, of which capacitie our ſmall saucers are: but as others ſuppoſe, it receiveth two ounces and an halfe, the meaſure of ordinarie saucers.

Acrimonie, *i.* Sharpneſſe.

Actually, *i.* ſenſibly and preſently, as fire is actually hot.

Aditiales, or *Adjciales epulæ*, were great and ſumptuous feaſts or ſuppers, held by the Pontifices or high prieſts, in teſtimonie of publicke joy.

Almonds. See *Amygdals*.

Amphora, a meaſure in Rome of liquors only: It ſeemeth to have taken that name of the two ears which it had, of either ſide one: it contained eight Congios, which are much about eight wine gallons, or rather between ſeven and eight: ſo as in round reckoning it may go for a ferkin, halfe kilderkin, or halfe ſeſterne with us.

Amygdals, be kernils at the root of the tongue, ſubject to inflammations and ſwellings, occaſioned by deflux or falling downe of humours from the head: they be called Antides, Pariſthmia, and Tonſillæ: the foreſaid infirmities alſo incident unto them, do likewiſe carie the ſame denominations.

A

Antidotes, *i.* countrepoiſons properly, defenſatives, or preſervatives againſt poiſons, peſtilence, or any maladie whatſoever.

Antipathie, *i.* contrarietie, enmitie, and repugnancie in nature, as between fire and water, the vine and the Colewort, &c.

S. Anthonies fire is a riſing in the skin, occaſioned by hote bloud mixt with abundance of choller, and ſuch be the ſhingles and other wildfires called in Greeke Eryſipelas.

Aquoſities, be wateriſh humours, apt to engender the dropſies called Aſcites and Leucophlegmatia.

Aromatized, *i.* Spiced.

Arthriticall griefs, ſuch as poſſeſſe the joynts, as all the ſorts of gout.

Aſtrictive or *Aſtringent*, be ſuch things as bind the bodie or any part thereof.

Attractive, *i.* drawing; as the loadſtone draweth yron, amber ſtraws or bents, Dictamnus arrow heads or ſpills out of the bodie, and cupping-glaſſes (or ventoſes) humours and wind.

Auſtere, harſh or hard, as in fruits unripe, and hard wines of hedge grapes.

Axinomantie, a kind of magicke divination by an axe head red hot.

B

BAſis in a compound medecine is, that drug or ſimple which is predominant and carieth the greateſt force in it, as the ground therof, whereupon the whole taketh the name; as Poppie in Diacodion, Quinces in Diacydonium, &c.

Bole, is the forme of a medecine when it may be given in groſſe manner at a knives point to the quantitie of a nutmeg at a time, untill the whole receit be taken.

Browning, a tearme uſuall in the mouths of mariners and winnowers of corne, when they are calmed and doe call for wind.

Bulbs, although *Plinie* ſeemed to give that name unto ſome one ſpeciall hearbe, yet it

ſignifieth generally all thoſe as have round roots, as Onions, Squilla, Wakerobin, and ſuch like; whereupon theſe & other of that kind are ſaid to have bulbous roots.

Cacochymie, is that indiſpoſition of the bodie wherein there is abundance of ill humours.

Calcining, *i.* the burning of a minerall, or any thing, for to correct the malignitie of it, or reduce it into powder, &c.

Calloſitie, thickneſſe and hardneſſe of skin in manner ſenſleſſe, as in fiſtulaes, and under our heels.

To *Carminate*, is to make more fine and thin the groſſe humors, by ſuch medicins as by their heat are apt to cut and diſſolve them; wherupon they likewiſe be called *Carminative:* a tearme received by Apothecaries, and borrowed from thoſe that card wooll.

Cancer, is a ſwelling or ſore comming of melancholie bloud, about which the veins appeare of a blacke or ſwert colour, ſpread in manner of a Creifiſh clees; whereupon it tooke that name in Latine, like as in Greeke *Carcinoma*. And ſuch ulcers as in that ſort be maintained and fed with that humor, are called Cancerous, & be untoward to heale, worſe commonly for the handling.

Carnoſitie, *i.* fleſhly ſubſtance.

Cataplaſm, a pulteſſe or groſſe maner of plaſtre.

Cartilage, in man and beaſt, is a griſtle; in roots and fruits, that ſubſtance which we obſerve in the Radiſh root, and the outward part of the Cucumber, as *Plinie* ſeemeth to take it; which therupon be called Cartilagineous.

Cataract, is a dimneſſe of ſight cauſed by an humor gathered and hardened between the tunicle of the eye called Cornea, and the Cryſtalline humour; it is next couſin to blindneſſe.

Cauſticke, *i.* burning, bliſtering, or ſcalding.

To *Cauterize*, is to ſeare or burn by a Cauterie.

Cauterie actuall, is fire it ſelfe, or ſcalding liquor: and ſo a ſearing yron, gold or other mettall made red hot, is called an Actuall cauterie, which without the help of our naturall heat doth worke preſently.

Cauterie potentiall, is that which will raiſe bliſters and burn in time after it is once ſet on worke by the heat of our bodie, as Canthorides, Sperewort, &c.

Ceres, the firſt inventreſſe of corne, the ſowing and uſe thereof.

Cerote, is of a middle nature, between an ointment and a plaſtre, not ſo hard as the one nor ſo ſoft as the other.

Cicatrices in eyes, bee whitiſh ſpots, otherwiſe called Pearls: they be the skarrs alſo remaining after a ſore is healed up: and ſo a place is ſaid to bee cicattized, when it is newly skinned up and healed.

Circulation, is the deviſe of ſubliming or extracting water or oile, by a ſtillatorie, a lembicke, or ſuch, becauſe the vapour before it be reſolved into water or oile ſeemeth to go round circlewiſe.

Clyſterized, *i.* conveighed up by a clyſter into the guts.

Cæliaci, be thoſe that through weakneſſe of ſtomacke are troubled with a continuall flux of the bellie.

Colature, a thin liquor that hath paſſed thorow a ſtrainer or colander.

Colliquation, is a falling away, & conſumption of the radicall humour, or ſolid ſubſtance of the bodie.

Collyries, are properly medicins applied to the eies in liquid forme; whereas the drie kind be rather called Sief & Alcohol, eſpecially in powder: howbeit *Plinie* attributeth this tearme to all eyeſalves whatſoever. Alſo it ſeemeth that he meaneth thereby, tents to be put in a fiſtulous ulcer, as in the pa. 509 *b*. 510 *k*.

Collution, a liquor properly to waſh the mouth, teeth, and gumbs withall.

Concocted, *i.* altered to that ſubſtance by naturall heat, as either in health may ſerve to nouriſh, or in ſickneſſe is apt to be expelled.

Conſolidat, to knit, unite, & make ſound againe that which was broken or burſt.

Concrete, *i.* hardened and growne thicke.

Condite, *i.* preſerved in ſome convenient liquor.

To *Concorporat*, *i.* to mix and unite togither into one maſſe.

Conſiſtence, *i.* ſubſtance or thickneſſe.

Conſtipate, *i.* to harden and make more faſt and compact.

Contraction in ſinews, a ſhrinking or drawing of them in too ſhort.

Contuſions, *i.* Bruiſes.

Convulſions, painfull cramps.

Criticall daies be ſuch, as in ſhort diſeaſes and thoſe of quicke motion, doe give light unto the Phyſician of life or death. *Plinie* obſerveth the odd daies to be moſt ſignificant, and thoſe uſually determine of health; and the even daies contrariwiſe: ſo that the ſeventh is *Rex*, *i.* a gracious prince; the ſixth *Tyrannus*, *i.* a cruell tyrant.

Cruditie. See *Indigeſtion.*

Cyath, a ſmall meaſure, both of liquid and drie things; the twelft part of a Sextarius, which was twentie ounces: whereby it appeareth, that a cyath was one ounce, one half ounce, one dram, and one ſcruple: it may goe with us for foure ordinarie ſpoonefuls.

Cubit, a meaſure, from the elbow to the middle finger ſtretched forth at length, which went ordinarily for 24 fingers breadth or 18 inches, which is one foot and an halfe: yet *Plinie* in one place maketh mention of a ſhorter cubit, namely from the elbow to the end of the fiſt or knuckles, when the fingers bee drawne in cloſe to the hand.

Cutanean eruptions, bee ſuch wheales, puſhes, or ſcabs, as doe breake out of the skin, and disfigure it.

D

Debilitie, *i.* weakeneſſe or feebleneſſe.

Decoction, a liquour wherein things have beene ſodden.

Decretorie daies, be ſuch in a ſickneſſe, as ſhew ſome chaunge or alteration in the patient, either for good or bad.

Defenſative, in medicines taken inwardly, are thoſe which reſiſt venome or peſtilent humor: in outward applications, ſuch as defend the ſore or place affected from the flux or fall of humours thither.

Denarius, a coine of ſilver in Rome, and in other countries of gold, the ſame that Drachma Attica, *i.* a dram in weigt, which is *vij. d. ob.* of our money; and the peece in gold anſwereth neare to a full French crowne. In poiſe it goeth for a dram.

Dentifrices, are meanes in Phyſicke to preſerve the teeth, and make them white and faire.

Depilatorie, are thoſe medicines which either fetch off the haire, or hinder it from comming up againe at all, or at leaſtwiſe from growing thicke. They were called in Greeke and Latine both, *Pſilothra.*

Deſiccative, *i.* drying.

Digeſtives, be thoſe medicines, which taken inwardly, helpe concoction of meat or humors; or applied without unto a ſore, doe comfort the place, and make way for ſpeedy healing.

Diſlocations, when the bones bee either out of joint, or elſe diſplaced.

To *Diſopilate*, *i.* to open.

To *Diſſipate*, *i.* to ſcatter and diſpatch.

Diſtortion, crookedneſſe or turning awrie unnaturally.

Diuretical, ſuch things as provoke urine.

Doſe, *i.* that weight or quantitie of any medicine that may be given either conveniently or without daunger to the patient.

Dram, the eight part of an ounce, which is the weight of a Romane denier or Denarius.

Dyſenterie, is properly the exulceration or ſore in the guts, whereupon enſueth beſides the painefull wrings of the bellie, a flux alſo of bloud at the ſeege, and therefore it is uſually taken for the bloudie flix.

E

Eclogues. See *Eidyls.*

Electuaries, bee medicinable compoſitions or confections to be taken inwardly, made of choiſe drougs, either to purge the humors, to ſtrengthen the principall parts, or to withſtand any infirmitie for which they are made. The ſubſtance is betweene a ſyrrup and a conſerve, but more enclining to the conſiſtence of conſerves.

Eidylls, or *Eidyllia*, bee ſmall Poëmes or Pamphlets written by Poëts, ſuch as *Theocritus* in Greeke compiled, and much like unto the Paſtorals or Eclogues of *Virgil* in Latine.

Embrochation, is a deviſe that Phyſicians have for to foment the head or any other part, with a liquour falling from aloft upon it, in manner of raine; whereupon it tooke the name in Greeke Embroche, and hath found none yet in Latine, unleſſe we ſhould uſe Superfuſio.

Emollitives, medicines that do ſoften any hard ſwelling.

Empirickes, were thoſe Phyſicians, who without any regard either of the cauſe in a diſeaſe, or the conſtitution and nature of the patient, went to worke with thoſe medicines whereof they had experience in others, fall it out as it would.

Empiricke bookes of *Diodorus*, contained receits approved and found effectuall by experience.

Emunctories, bee thoſe kernellie places in the bodie, by which the principall and noble parts doe void their ſuperfluities, or ſuch things as offend; to wit, under the eares for the braine, the arme-pits for the heart, and the ſhare for the liver, &c.

Empla-

Emplaſtration in the Hortyard, is grafting by inoculation with a ſcutcheon; in Phyſick, the applying of a ſalve or plaſtre.

Epilepſie, *i.* the falling ſickneſſe.

Errhines be deviſes made like tents, ſharper at one end than the other, to bee put up into the noſe, either to cure ſome ulcer there, or to draw downe and void humors out of the head, or to provoke ſneeſing, &c.

Eſchare, is that cruſt which ariſeth upon a cauterie, either actuall or potentiall, as alſo the rouſe or ſcab that groweth upon a ſore.

Evacuation, *i.* Voidance and riddance of any thing out of the bodie by vomite, purging, bleeding, ſweating, &c.

Excalfactorie, *i.* Heating or chauſing.

Excoriation, *i.* fretting the skin off, when a part is made raw: a way to exulceration.

Excreſcence, *i.* overgrowing unnaturally of any thing in mans bodie.

Exoticall, *i.* forraine, and brought from other countries.

Exorciſmes, *i.* coniurations by certain charmes and ſpels.

Exorciſts, they that practiſed ſuch Exorciſmes.

To *Expectorat*, *i.* to rid and diſcharge out of the breaſt by coughing or reaching.

Expiatorie, were ſacrifices or oblations for to make ſatisfaction and attonement.

Exiccative. See *Deſiccative*.

Extenuat, *i.* to make thin.

Exulceration, *i.* a ſoreneſſe of any part inward or outward, when not onely the skin is off, but the humor doth fret deeper ſtill.

Exulcerative, bee ſuch things as are apt to eat into the fleſh and make an ulcer.

F

FErmentation, *i.* an equall mixture of things working as it were together: a tearme borrowed from the levaine, which diſperſeth it ſelfe into the whole maſſe or lumpe of dough.

Filaments bee the ſmall ſtrings that hang to a root like threads or haires, which ſome call the beard of the root: and in reſemblance thereof, other things growing likewiſe, bee ſo called.

Fiſſures, clifts, or chaps, whether it bee in the hands, feet, lips, or fundament.

Flatuoſities, *i.* windineſſe gathered within the bodie.

Flora, the goddeſſe of Flowers among the Painims.

Fomentations properly be deviſes for to be applied unto any affected part, either to comfort and cheriſh it, or to allay the paine, or elſe to open the pores to make way for ointments and plaſtres. If they be liquid things, they are laid too by the meanes of bladders, ſpunges, or ſuch like: if drie, within bags or quilts.

Fractures, *i.* bones broken.

Frictions or *Frications*, rubbings of the bodie upward or downeward gently or otherwiſe, as the cauſe requireth.

Frontall, the forme of an outward medicine applied unto the forehead, to allay pain, to procure ſleepe, &c.

Fukes, *i.* paintings, to beautifie the face in outward appearance. They are called at this day complexions, whereas they bee cleane contrarie: for the complexion is naturall, and theſe altogether artificiall.

Fumoſities bee vapours ſteaming up into the head, troubling the braine.

Fungous, *i.* of an hollow and light ſubſtance like to Fuſſes or Muſhromes.

G

GArgariſmes bee collutions of the mouth, and parts toward the throat, either to draw downe and purge humours out of the head, or to repreſſe and reſtraine their flux, or to mundifie and heale any ſore there growing.

Gargariſing or Gargling is the action of uſing a liquor to the ſaid purpoſe.

Geſtation, an exerciſe of the bodie, by beeing carried in coach, litter, upon horſebacke, or in a veſſell on the water.

Glandulous ſwellings. See *Kings evill*.

Gleir, *i.* the white of an egge.

Gymnicke exerciſes, were thoſe that were performed by men naked, and the place for ſuch exerciſes, was thereupon called Gymnaſium.

H

HAbit of the bodie, is taken for the outward parts therof, oppoſit unto the bowels and principall within; which beeing comforted and fortified, doe thruſt forth offenſive matters to the habit and exterior skin.

Hemine, a meaſure in Rome, as well of liquors as drie things: ſo called, becauſe it was halfe Sextarius: it contained ten ounces, and is

ſomewhat

ſomewhat under our wine pint, it is the ſame that Cotyla in Greeke.

Humiditie, i. moiſture.

Hydromantia, a kind of magicall divination or foreknowledge of things to come, by obſervation of the water.

Hydrophobie, is a ſymptome or accident befalling to them that are bitten by a mad dog, whereby they are afraid of water.

Hypochondriall parts, be the flanks or ſoft parts under the ſhort ribs.

I

Iliacke paſſion, the wrings and torments of the upper ſmall guts, occaſioned by wind or ſharpe humors. Some improperly call it the collicke of the ſtomacke.

Imbibition, a drinking or receiving of any liquor into a thing: as when drougs lie ſteeped therein untill they be throughly ſoaked therewith.

Impoſtumes properly be collections or gatherings of wind and humours eſpecially betweene parts of the bodie, wherupon there appeareth a riſing or ſwelling, and in time they become corrupt and doe rankle, unleſſe by ſome meanes they be either drawn away or diſperſed. Some tearme them wens, howbeit, the word is taken for inflammations and biles.

To *Incorporat*, is to mix and unite well together.

To *Incraſsate*, is to make thicke.

Indigeſtion, *i.* want of concoction and digeſtion, by which meanes many crudities and raw humors are engendered, and by conſequence abundance of rheumes.

Inflation, i. ſwelling or puffing up with wind.

Infrangible, i. that cannot be broken.

Infuſion ſignifieth the conveighance of ſome medicinable liquour into the bodie by clyſtre or other inſtrument. It importeth alſo the ſteeping of drougs in a convenient liquor: and the liquor it ſelfe, when it is ſtrained from the reſt.

Ingredients, be thoſe ſimples that goe unto the making of any medicine compound.

Iniection, is the conveighance of any liquid medicine by ſyringe or ſuch like inſtrument into any part of the bodie or hollow and fiſtulous ulcer.

Inſects, little vermine or ſmall creatures, which have (as it were) a cut or diviſion betweene their heads and bodies, as Piſmires, Flies, Graſhoppers, under which are comprehended Earthwormes, Caterpillers, &c.

Inſeſsions be bathing tubs or veſſels halfe full; wherin the patient may ſit up to the middle or above in ſome convenient decoction.

Intermittent feaver, are thoſe which come by fits, and yeeld ſome reſt betweene whiles.

Inunction, i. annointing.

Iulebs or *Iuleps*, be drinkes given commonly as preparatives for to open the paſſages of the inward parts, and to prepare the humours for a purgation, made either of ſome ſtilled waters and ſyrrups mixed together, or of a decoction ſweetened with honey or ſugar, or els mingled with ſyrrups.

K

Kings evill, is the hard ſwelling of the Glandules or Kernels commonly about the necke: they be called alſo Scrophules.

L

Lachrymal, is the corner of the eye wherin the teares appeare firſt, and thereof it taketh the name.

Laſsitude, is wearineſſe or unluſtineſſe.

Lavature, *Lotion*, or *Loture*, is a liquour to bath or waſh withall: likewiſe to cleanſe and mundifie any part.

Ligula, *Lingua*, or *Lingula*, a ſmall meaſure among the Romanes, both of liquour and drie things, containing the fourth part of Cyathus, to wit, three drams and one ſcriptule or ſcruple, ſomewhat under halfe an ounce, and may goe well for our ſpoonefull.

A *Liniment* is thicker than oyle, and thinner than an ointment, it may be taken for a thinner kind of ointment.

Lobes and fibres are the lappets and extreame parts of the liver, with the maiſter veines growing thereto.

Locall medicines, be thoſe which are appropriat for the forehead, *Errhine* or *Naſal* for the noſthrils, &c. or to be applied outwardly as ointments, which are not to be uſed before generall or univerſall means by evacuation.

Loch or *Lohoch*, is a medicine more liquid than an electuarie, appropriat for the lungs and windpipe, and is to bee licked and let goe downe leiſurely.

Longaon, is the nethermoſt gut reaching to the very ſeat or the fundament.

Luted,

Luted, *i.* close stopped with cley, dough, or such like.

M

Maturatives be medicines that help to ripen any swelling impostume, bile, or botch.

Maturitie, is the ripenesse thereof.

Membranes, be fine skins which enwrap other parts, as the brains, eyes, and muscles of the flesh.

Metrenchyte, an instrument serving to infuse or inject a liquid medicine into the matrice of a woman, in manner of clystre.

Mitigatives, be such remedies as doe assuage paine.

Mna or *Mina*, was a Roman weight, which poised twentie ounces, that is to say, the ordinarie pound, called Libra or Pondo, & two third parts: for the common Libra called Medica, weighed twelve ounces, so that Mina seemed to answere unto the measure Sextarius.

Mollitive. See *Emollitives*.

Mordicative, is biting and stinging, as Senvie seed.

Mucilage, is a slimie liquor drawne from some roots or seeds, as from the marsh Mallow or Althea root, the seed of Psillium or Fleawort and others.

Muscles be the fleshie parts of the bodie, contained within their severall membranes or skins.

N

Narcoticke medicines, bee those that benum and stupifie with their coldnesse, as Opium, Hemlocke, and such like.

Nasals be Nose-tents. See *Errhina*.

Nerves, *i.* Sinewes.

Nodosities, hard knubs and knots growing upon the joints in old gouts, and in other parts.

O

Obolus, halfe a scriptule, or the sixt part of a dram.

Obstructions, *i.* Stoppings.

Opiats, were properly at the first such electuaries or confections, which had a good quantitie of Opium, *i.* the juice of Poppie in them, such as Philonium and Requies, which were devised to mittigat intollerable paine, and to bring the patient to sleepe: howbeit, in these daies all electuaries, even cordials, in a liquid forme be called Opiats, although there be not one grain of Opium in them.

Opilation. See *Obstruction*.

Orthopnoicks, are those that have the disease Orthopnœa, which is a difficultie of drawing their wind, unlesse they sit upright.

Osses, be words cast forth at unwares, presaging somewhat.

Otenchyte, an instrument, devised for to infuse or poure some medicinable liquor into the eares.

Oxycrate, a mixture of water and vinegre together.

P

To *Palliat*, *i.* to cover. And such cures be called Palliative, which search not to the root and cause, but give a shew only of cure; as when a sore is healed up aloft, and yet festereth underneath: and so sweet Pomanders doe palliat a stinking breath, occasioned by a corrupt stomack or diseased lungs, and such like.

Paradoxes, strange opinions.

Pectorals, *i.* such medicines as bee fit for the breast and lungs.

Pellicles. See *Membranes*.

Penetrative, *i.* Percing.

Periodicall, such agues bee called, as returne at their iust course from day to day, every third fourth or fift day, &c.

Peripneumonie, is the inflammation of the lungs.

Pessarie, is a devise made like a finger or suppositorie, to be put up into the natural parts of a woman.

Phlebotomie, *i.* bloud-letting, or opening of a veine by incision or pricke.

Phthysicke, to speake properly, is the consumption of the bodie occasioned by the fault of exulcerat and putrified lungs. But *Plinie* otherwhiles seemeth to take it for any other consumption.

Pomona, a devised goddesse among the Painims, of apples and such fruits.

Prodigies be straunge sights and wonderfull tokens, presaging some fearefull thing to come.

Propinquitie, neareneſse or affinitie.

Proscription, was a kind of outlawing and depriving a man of the protection of the state, with

with confiſcation of his lands and goods.

Propagat, to grow and encreaſe, after the manner of Vine braunches, which being drawn along in the ground from the motherſtock doe take root.

Propitious, *i.* gracious and mercifull.

Proximitie, neere neighbourhood or reſemblance.

Ptiſane, the decoction of husked Batley: a grewell made therewith, or the creame thereof.

Pulpous, *i.* full of pulpe, or reſembling pulpe, which is the ſoft ſubſtance in Apples or ſuch fruits, anſwerable to the fleſh in living bodies.

Purulent, yeelding filth and Attyr.

Putrefactive, ſuch venomous medicines or humors, as do corrupt and putrifie the part of the bodie which they poſſeſſe.

Q

Qvindecemviri, were certain officers, fifteen in number, joined in one commiſſion.

R

Receptorie, a veſſell ſtanding underneath, readie to receive that which droppeth and deſtilleth from ſomething above it.

Reciprocall, going and comming, as the tides of the ſea ebbing and flowing.

To *Rectifie*, *i.* to ſet ſtreight, reforme, or amend.

Repercuſsive, *i.* driving or ſmiting backe.

Reſidence, *i.* the ſetling toward the bottome, as in urine.

Retentive facultie, *i.* the naturall power that ech part or member of the bodie hath to hold that which is committed unto it, the due time, as the ſtomacke, meat; the bladder, urine, &c.

Reverberation, *i.* rebounding or ſtriking back.

Rhagadies, be properly the chaps in the fundament or ſeat.

Rubified, *i.* made red, as when by application of muſtard plaſtres, called Sinapiſmes; or beating a part that is benummed with Nettles, it recovereth a freſh colour againe, whereupon ſuch plaſtres be called Rubificative, and the operation is named by the Greekes Phœnigmos.

Rupture, the diſeaſe of burſting, as when the guts or other parts fall downe into the bag of the cods.

S

Salivation, is a drawing of humours to the mouth, and a deliverie of them from thence in manner of ſpittle.

Sarcling is the bating of roots, by ridding away the earth and weeds from about them, that did clog them.

Scarification, is a kind of pouncing or opening of the skin by way of inciſion ſlightly, with the fleame or launcet, either to give ſome iſſue for the bloud & humors to paſſe forth, or to prepare a place for the cupping-glaſſe to extract more.

Schirre, is a hard ſwelling almoſt ſenceleſſe.

Scriptule, or *Scruple*, is foure and twentie grains weight, or the third part of a dram.

Scrophules. See *Kings evill*.

Seat, is the circumference or compaſſe about the tuill or fundament.

Secundine, *i.* the afterbirth that infolded the infant within the mothers wombe.

Seege, a ſtoole of eaſement, whereupon we ſit to diſcharge the ordure and excrements of the guts.

Seroſities, or *Serous humours*, bee the thinner parts of the maſſe of bloud, anſwering to the whey in milke, ſuch as we ſee to floate upon bloud that hath run out of a veine.

Sextarius, a meaſure among the Romanes, whereof ſix goe to their Congius, whereupon it tooke that name: it containeth two hemines, and is ſomewhat leſſe than a wine quart with us, it beareth twentie ounces.

Sinapiſme, a practiſe by a plaſtre of muſtard ſeed, and ſuch like, to revive a place in manner mortified, and to draw freſh humors and colour to it.

Solſtice, *i.* the Sunneſtead, as well in Winter as Summer, when hee is come to his utmoſt points North and South, but uſually it is put for Midſummer onely.

Sophiſticated, *i.* falſified and made corrupt, howbeit, going for the right. Thus drougs and gems are many times thruſt upon us.

Spaſmes, be painefull crampes or pluckings of the ſinewes and cords of the Muſcles.

Spaſmaticke, are ſuch as be thus plucked.

Species, be either the ſimple ingredients into a compoſition, or els the bare pouders mingled together, readie to be reduced into an electuarie liquid, or Tables.

Speculative knowledge, or *Speculation*, is the inſight into a thing by reading only and contemplation

templation, without practise & experience.

Sperme, is naturall seed.

Spondyles, be the turning joynts of the chine or backbone.

Stomachicall flux, is the same that Cœliaca passio. See *Cœliaci*.

Stomaticall medecins, be such as are appropriat for the diseases incident to the mouth, and the parts adjoyning.

Stypticke, be such things as by a certaine harsh tast, doe shew that they be astringent, as medlars, and alumne, which thereupon is named *Stypteria*, and such like.

Succedan, that drug which may be used for default of another. The Apothecaries call such, *Quid pro quo*.

Suffusion. See *Cataract*.

Suffumigation, is the smoke that is received into the body from under a stoole, for the diseases of the guts, fundament, or matrice.

Suppuration, is when a bile or impostume gathereth to an head and must be broken.

Sympathie, *i*. a fellow-feeling, used in *Plinie* for the agreement or amitie naturall in divers senslesse things, as betweene yron and the loadstone.

Symptome, an accident accompanying sicknes, as head-ach the ague; stitch, shortnesse of wind; spitting bloud, cough, and ague, the pleurisie.

Syringe, an instrument in manner of a pipe to inject a medicinable liquor into the bladder.

T

TEllus, the Earth.

Tenacitie, clammines, such as is in glew, birdlime, and bitumen.

Theoricke, or *Theoretique*, contemplative knowledge without action and practise.

Tinesme, an inordinat desire to the stoole without doing any thing to the purpose.

Tonsils. See *Amygdals*.

Transparent, *i*. cleare and bright throughout; as crystall, amber, aire, and water.

Transvasation, *i*. the pouring of liquor out of one vessell into another.

Triviall, *i*. vulgar, common, and of base reckoning.

Triumvirat, the Tripartite dominion of *Antonie*, *Octavius*, and *Lepidus*, when they held all the world in their hands, each one their third part.

Trochisques, or *Tросques*, be little cakes or roundles, into which divers things medicinable are reduced for to be kept the better, and to be readie at hand when they shall be used.

Tuil, the same that the Fundement or neathermost gut.

V

VEgetative, that power in nature which God hath given to creatures, wherby they live, are nourished, and grow.

Ventositie, windinesse.

Vicinitie, neareneſse, or neighbourhood.

Victoriat, a silver coine in Rome, Halfe a denarius, so called becausе it had the image of Victorie stamped on the one side: it is somewhat under our groat.

Vnction, annointing.

Vnguent, an ointment.

Vreters, bee the passages or conduits whereby the water or urine passeth from the kidnies into the bladder.

Vulnerarie, *i*. belonging to a wound; as Sanicle is a vulnerarie hearb, and *Machaon* was a vulnerarie Physician.

THE XIX. BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

The Proëme.

TReated we have in the former booke, of the ſtars and ſignes above, which give us intelligence as well of the ſeaſons, as the diſpoſition of the weather to come: and that in plain and eaſie manner, by ſo evident and undoubted demonſtrations alſo, as may content the meane capacitie of the unskilfull and ignorant. And verily, if wee will rightly weigh and conſider the thing, we ſhall find and underſtand, That our countrie farmes and villages ſtand us in as good ſteed to know the inclination of the heavens and ſtars, as the skill of Aſtronomie ſerveth our turnes for good Husbandrie. Theſe points now being well and throughly learned, many have been of opinion, That the knowledge of gardens & the care thereto belonging, ſhould by good right follow next. Howbeit, I for my part am of this mind, that there be other matters concerning Agriculture, deſerve to be handeled, before we leape thus ſoone to gardening. And here I cannot chuſe but marvell much at ſome men, who making ſuch profeſſion of learning, and namely, in the skill and ſcience of Agriculture, as they have done; yea, and ſeeking thereby to win all their credit and name of erudition and litterature; have notwithſtanding omitted many things requiſit thereunto, without any mention made, or one word ſpoken of ſo many hearbes and ſimples which either come up of themſelves, or grow by meanes of mans hand: conſidering that the moſt part of them are in greater price and reputation, yea, and in more uſe and requeſt far, for the maintenance of this our life, than either corne or pulſe, or any fruits of the earth whatſoever.

And to begin firſt at thoſe that are knowne commodities, and ſo notorious, as that the uſe thereof not onely reacheth all over the maine and continent, but extendeth alſo to the very ſeas, and overſpreadeth them: What ſay we to Line or Flax, ſo commonly ſowed as it is? yet may it not be raunged either among the fruits of the field, or hearbes of the garden. But what region (I pray you) or part of the earth is without it? and what is there ſo neceſſarie for this life of ours in all reſpects? Againe, is there any thing in the whole world more wonderfull and miraculous, than that there ſhould be an hearbe found of this vertue and propertie, as to bring Ægypt and Italie together? inſomuch, as Galerius, Lord Deputie in Ægypt under the Romanes, was knowne to ſet ſaile from the firth of Meſſina in the ſtreights of Sicilie, and in ſeven daies to arrive at Alexandria: Babilius alſo Governour there likewiſe, in ſix; and that by the meanes of the ſaid hearbe? Moreover, what ſay you to this, which was ſeene no longer ſince than the Summer paſt; when Valerius Marianus, a Senatour of Rome, and late Lord Pretour, embarked and tooke ſhip at Puteoli, and in nine daies ſailed to the ſaid Alexandria, and yet he had but a very mild and ſtill wind to helpe him in that voiage? Is not this a ſtrange and ſoveraigne hearbe thinke you, that in a ſeven-night ſpace can fetch Gades from as far as the ſtreights of Gilbretar or Hercules pillars, into the harbour of Oſtia in Italie? can ſhew (I ſay) the kingdome of Catalogne in Spain before the ſaid port-town in foure daies, Provance in three, and Barbarie in twaine? For C. Flaccus, lieutenant under Vibius Criſpus the Pro-conſull, did as much as I ſpeake of, and that with no great forewind, but a moſt gentle and mild gale. Oh the audacious boldneſſe of this world, ſo raſh, ſo full of ſin and wickednesſe, that man ſhould ſow and cheriſh any ſuch thing, as might receive and ſwallow the winds, ſtormes, and tempeſts; as if the float and tide alone were not ſufficient to carie ſo prowd a creature! But now are we growne moreover to this paſſe, that ſailes bigger than the ſhips themſelves, will not ſerve our turnes. For albeit one maſt be ſufficient to carie the biggeſt croſſe-yard that can be deviſed, yet are not wee content with a ſingle

maine saile thereupon, unlesse we set up saile upon saile, top and top-gallant: unlesse (I say) wee have fore- G
sailes and sprit-sailes in the Prow, misns also hoised up and displaied in the poupe; besides other trinkets and more cloth still: and all to set us more forward upon our death, and to hasten our end. Finally, is there ought againe so admirable, as that of so small a graine as is the Line-seed, there should grow that which is able to carrie too and fro in a moment, this round globe of the earth; the same being so slender a stalke as it is, and not growing high from the ground? considering withall, that twisted it is not entire and whole in the stem: but before it can bee occupied, it must bee watered, dried, braked, tew-tawed; and with much labour driven and reduced in the end to bee as soft and tender as wooll: and all to doe violence to nature and mankind most audaciously even in the highest degree, in such sort, as a man is not able to proceed so farre in execration as is due unto this Invention. The first deviser whereof I have H
inveighed against in convenient place elsewhere, and not without desert: as who could not bee content, that a man should die upon the land, but he must perish upon the sea, to feed hadockes there, without the honour of sepulture. In the booke but next before this, I gave warning and advertised men, That for to enjoy corne and other victuals necessarie for this life in sufficance and plentie, wee should beware of wind and raine. And now behold, man is so wicked and ungracious, his wit so inventive, that he will be sowing, tending, and plucking that with his own hand, which cals for nothing else at sea but Wind; and never rests till Burning bee come. See moreover how well this unhappie hand of his speeds, for there is not a plant againe commeth up sooner, or thriveth faster than this Flax. And to conclude, that wee may know how Nature her selfe is nothing well pleased therewith, and that it groweth maugre her will, It burnes the field wherein it is sowed; it eateth out the heart of the ground, and maketh it worse, whersoever it comes: this is all the good it doth upon a land. I

Chap. I.

The manner of sowing Line or Flax: the sundrie kinds thereof. The order how to dresse it. Also of Napkins and other Naperie. Of Flax and Linnen that will not burne in the fire. And when the Theatres or Shew-places at Rome were first encourtained.

LIne-seed loveth gravelly or sandie grounds passing well, and commonly is sowed with one tilth and no more: yet is there nothing maketh more hast to be above ground, or sooner commeth to maturitie. Being sowne in Spring, it is pluckt in Summer: See how *injurious still it is to the earth even this way also! Well, say that the Ægpytians in some sort may be excused, for sowing it as they do, and making saile-cloth thereof; in regard of the necessarie trafficke, they have into Arabia and India, for to fetch in the commodities of those countries; what need or reason I pray you hath Fraunce so to doe? Can the Gaules be sorted in the same raunge with the Ægyptians? Whether would they goe? Is it not sufficient that they see the mightie mountaines standing just betweene them and the Mediterranean sea? Will not this serve to keep them from Navigation, that on the huge Ocean side, they can discover nothing but the vast elements of Water and Aire together? Howbeit, for all this restraint, the Cadurci, Caletes, Rutene, and Bituriges; the Morini also who are supposed to be the farthest people inhabiting our continent, yea, and throughout all parts of Fraunce they weave line and make sailes therof. And now adaies also the Flemmings and Hollanders dwelling beyond the Rhene (I meane those auncient enemies to the State of our Empire) do the like: *insomuch, as the women there cannot devise to goe more rich and costly in their apparell, than to weare fine Linnen. The observation whereof putteth me in mind of a thing, that *M. Varro* doth report of the whole race and familie of the Serrani: in which house this order was precisely kept, That there was not a woman among them knowne to weare any Linnen about her, not so much as in a smocke next her bare skin. Now in Germanie, the spinners and weavers of Linnen, doe all their worke in shrouds, caves, and vaults, buried (as it were) under the ground: so doe they also in Italie and that part of Lumbardie that lieth betweene the Po and Ticinus, to wit, in the *countrey Aliana; where (after the Setabines in Castile, which is the best) there is very fine workmanship of Linnen cloth, and may deserve the third place for goodnesse, throughout all Europe. For the Retovines, bordering hard upon the foresaid Allianes, and the Faventines who inhabite the broad port-way Æmilia, are to bee raun-*

K L M

*For that so quickly it robbeth her of moisture.

*It seemeth that fine Holland cloth and Cambrick was in request by *Plinies* time.

**Regione Aliana.* Turneb.

ged

A ged in a ſecond degree and next to the Setabines for the fine Linnen which they make. And in very truth, this Faventine cloth is alwaies farre whiter than the Allian, which is ordinarily brown when it is new woven, and before it be bleached. Like as the Retovine is exceeding fine and thick woven withall, and beſides, not inferior in whiteneſſe to the Faventine; howbeit, no nap or downe it carieth, a thing which as there be ſome who doe greatly praiſe and like, ſo there bee others againe diſcommend and diſlike as much. As touching the thred it ſelfe that they make of their Flax, it is more even (if evener may be) than that which the Spider ſpinneth; ſo nervous alſo and ſtrong withall, that if a man liſt to make triall thereof with his teeth, it will give a twang and ring againe like a Lute-ſtring: and therefore it carieth a double price to other. As touching the Spaniſh Flax, and namely, that which Aragon and Cartalogna dooth yeeld, it is paſſing faire and
B white, by reaſon of a certain brook or running water paſſing under Tarracon, wherein it is watered: the nature whereof is to give it a ſingular brightnes above the reſt. Wonderous fine it is, and runneth into a daintie ſmall thread: for there firſt was deviſed the fine Cypres or Lawne, and the curtaines thereof. It is not long ago, ſince out of the ſame parts of high Spain, there was brought into Italie the Flax of Zoela, moſt commodious and meet for hunters to make great nets and toile. A maritime citie this Zoela is, in Gallitia, ſituat neare the Ocean. There is excellent good Line alſo to bee found at Cumes in Campaine within Italie, which ſerveth very well for ſnares and ſmall nets to take fiſhes, and catch birds with. The ſame alſo yeeldeth matter and ſtuffe for the great cord-nets aboveſaid. For wote well this, that Flax fitteth our turnes, as well to ſnare and entrap all other beaſts, as it doth to endaunger our owne ſelves [upon the ſea.] But of all o-
C thers, the toile made of Cumes Flaxen cords, are ſo ſtrong, that the wild Bore falling into it, will bee caught: and no marvaile, for theſe kind of nets will checke the very edge of a ſword or ſuch like weapon. I my ſelfe have ſeene ſo fine and ſmall a thred, that a whole net knit thereof, together with the cords and ſtrings called Courants, running along the edges to draw it in and let it out, would paſſe all through the ring of a mans finger. I have knowne one man alſo carie ſo many of them (eaſily) as would goe about and compaſſe a whole forreſt. But that is not the greateſt wonder of them: for more than ſo, every one of thoſe threds that went to the making of the maſhes, was twiſted 150 double: and even of late daies, *Iulius Lupus*, who died lord Deputie or Governour of Ægypt, had ſuch. This may well ſeeme a marveile incredible to thoſe who neither knew nor ſaw the net-worke Habergeon or Curet of *Amaſis*, a king ſometime of Ægypt, which
D was ſhewed of late daies within the temple of *Minerva*, in the Iſle of the Rhodians; every thred whereof caried a twiſt *three hundred ſixtie five double. Certes, *Mutianus*, a man of good credit (as who had been thrice Conſull of Rome) hath related ſo much at Rome upon his owne knowledge: for whereas there remained yet certaine ſmall reliques and little peeces thereof, it was his hap of late to meet with ſome of them, and by his owne triall to find that true, which had been reported by others. And verily, great pitie it is, that ſuch an excellent, rich, and rare peece of work (as it was) ſhould thus come to nothing, by mens injurious handling of it, raveling out the threds as they have done, for to ſee the proofe of the thing.

* According to the daies of the yeare.

But to returne againe to our Flax of Italie. That which groweth in the Pelignians countrey, is at this day in great account and requeſt: howbeit, none uſe it but the Fullers. There is not a whi-
E ter Flax to be found, & indeed reſembling Wooll nearer than this Flax. Like as, for quilts, ticks, and mattraſſes, the Flax of the Cadurci in Fraunce had no fellow: for ſurely the invention thereof, as alſo of flockes to ſtuffe them with, came out of Fraunce. As for us here in Italie, even as our manner was in old time to lie and ſleep upon ſtraw-beds & chaffey-couches, ſo at this day we uſe to call our pailets ſtill by the name of Stramenta. The Line or Flax of Ægypt is nothing ſtrong, howbeit the people there doe raiſe exceeding great gaine and profit thereof. And foure diſtinct kinds thereof are knowne, according to the names of the ſundrie countries where they grow, to wit, Taniticum, Peluſiacum, Buticum, and Tentyriticum.

Moreover, in the higher parts of Ægypt which bend toward Arabia, there groweth a certain ſhrub or buſh carrying cotton, which ſome call Goſſypium, others * Xylon, and the linnen ther-
F of made they therefore call * Xylina. This plant is but ſmall, and bringeth forth a fruit reſembling the bearded nut or filberd; out of the inner ſhell or huske whereof [called *Bombyx] there breaketh forth a cotton like unto down, ſo eaſie to be ſpun: and there is no flax in the world comparable to it for whiteneſſe and ſoftneſſe. Of this cotton, the Ægyptian prieſts were wont to wear their fine ſurpleſſes, and they tooke a ſingular delight therein. A fourth kind of linnen there is,

* Cotton or Bombace.
* Linſey-Woolſey, or our Fuſtians rather.
* Hereupon Cotton is called Bombace.

called Orchomenium; it commeth from a certaine fennie reed growing in mariſhes, I meane the tender muchets or chats thereof. G

In Aſia they have a certaine kind of broome, the ſtalke and braunches whereof they water and leave in ſteepe ten daies togither, and thereof make thread, paſſing good for to be twiſted and knit into fiſher-nets, for they will abide the water very well, and endure without rotting. The Æthiopians and Indians both, find a ſtuffe in manner of Line or cotton in ſome apples or ſuch like fruit: and the Arabians meet with the like in gourds, growing as I have before ſaid upon trees.

To come againe to our countrey Line or Flax within Italy, we goe by two ſignes, and know thereby when it is ripe and readie to be gathered; to wit, either by the ſwelling of the ſeed, or the colour of the plant it ſelfe, leafe and ſtalke enclining to yellow. Then is it plucked up and bound H into certaine bunches as much as handfuls: which done, they are hung up to drie in the ſun one day, with their heeles or roots upward: the morrow after, they be turned quite contrarie, and ſo for five daies after, they hang with the foreſaid roots downward, that the ſeed may fall down from their heads into the mids of every bunch or bundle aforeſaid: for the ſeed thereof is medicinable and of effectuall operation in Phyſicke: yea and the rurall peaſants in Lombardie and Piemont beyond the Po, uſe to make thereof a good countrey meat of a moſt ſweet and pleaſant taſt: but now for this good while, that kind of meat or bread is made onely for to be employed in their ſacrifices to the gods. Then after wheat harveſt, the ſtems or ſtalkes thereof are laid in ſome water that is warme with the Suns heat, charged with ſtones or other weights thereupon, that they may be borne downe and ſinke to the botome: for there is not a thing beſides lighter I than Line, or loveth better to ſwim. When they be ſufficiently watered (which you ſhall know by the skin or rind thereof if it be looſe and readie to depart from the towie ſubſtance of the ſtem) then muſt the foreſaid javels or ſtalks be hung out a ſecond time to be dried in the ſun, with their heads and heeles one while up and another while downe, as before. After they be well dried, they are to be beaten and punned in a great ſtone mortar, or upon a ſtone floore, with an hurden mallet or tow-beetle made for the purpoſe. Now that part thereof which is utmoſt and next to the pill or rind, is called Tow or Hurds, and it is the worſt of the Line or Flax, good for little or nothing but to make lampe-match or candle-wicke: and yet the ſame muſt bee better kembed with hetchell teeth of yron, untill it bee cleanſed from all the groſſe barke and rind among. As for the good Flax indeed, which is the teere or marrow as it were within of the Line, there bee K diverſe and ſundrie ſorts and degrees of it, diſtinct according either to the whiteneſſe or ſoftneſſe thereof. And the ſpinning of this fine Flax (I may tell you) is ſo cleane a worke, that it will become a man ywis to lay his fingers to it. But what ſhall bee done with all the hard refuſe, the long buns of the ſtalkes, the ſhort ſhuds or ſhives which are either driven from the reſt in the knocking, or parted in the hetchelling? marry they will ſerve very well to heat ovens and furnaces, or to maintaine fire under kills and leads. And here there is a prettie cunning and skill in the hetchelling and diſpenſing of Flax to the proofe; for if the Line bee good and well ordered, every fiftie pounds of it in bunches or bundles aforeſaid, muſt yeeld fifteene ordinarily of tried and carded Flax. Moreover, when it is ſpun into thread, it muſt be poliſhed againe and whiteL ned in water, with much punning and knocking upon a ſtone togither with the water. And yet there is no end, for after it is woven to cloath, it ought to bee followed and beaten a third time with good club-headed cudgels: in ſuch ſort, as the more injurie that is done unto it, the better it is.

Furthermore, there is a kind of Line found out which will not conſume in the fire: this in Italie they call Quicke-line: and I my ſelfe have ſeen table-cloaths, towels, and napkins therof, which being taken foule from the bourd at a great feaſt, have been caſt into the fire, and there they burned before our face upon the hearth; by which meanes they became better ſcoured, and looked fairer and brighter a hundred times, than if they had been rinſed and waſhed in water; and yet no part of their ſubſtance, but the filth only, was burnt away. At the royall obſequies and funerals of KK. the manner was to wind and lap the corps within a ſheet of this cloth, of purpoſe to ſeM parate the cinders comming of the bodie, from other aſhes [of the ſweet wood that was burnt therewith.] This manner of Line groweth in the deſerts of India, where no rain falls, where the countrey is all parched and burnt with the Sunne, among the fell dragons and hideous ſerpents. Thus it is enured there to live burning; which is the reaſon, that ever after it will abide the

fire.

A fire. Geason it is to be found, and as hard to be woven, so short and small it is. Howsoever otherwise it be naturally of colour reddish, yet by the fire it getteth a shining glosse and bright hew. They that can come by it and meet withall, esteeme it as precious as the best orient pearles. In Greeke they call this Line, Asbestinum, according to the nature and propertie that it hath, Not to consume with burning. Over and besides, *Anaxilaus* saith, That if a man would cut down or fall a tree by stealth and in secret, let him compasse the body thereof with a sheet of this linnen, he may hew as long as he will at it, and all the strokes that he giveth will be so drowned, that they shall not be heard againe. To conclude, in all these respects abovesaid, this Line may well be counted for the principall and best that is in the whole world.

The next to it in goodnesse, is the Line called Byssus: the fine Lawne or Tiffanie whereof our
B wives and dames at home set so much store by for to trim and decke themselves: it groweth in Achaia within the territorie about Elis: and I find, that in old time it was sold as deare as gold, for a *scruple thereof was commonly exchaunged for *foure Deniers Romane.

The lint or nappie downe which linnen cloth beareth in manner of a soft cotton, especially such as commeth of ship sailes that have ben at sea, is of great use in Physicke. *The ashes also made thereof, be counted a good Succedane of Spodium, and for their efficacie may go for it. Moreover, there is a kind of Poppies much sought after for blaunching and bleaching of linnen cloths; for being skoured therewith, it is wonderfull how white and pure they will looke. And yet for all the beautie that consisteth in that colour, people are grown to this disorder & vain enormitie, that they have assayed to staine and die their linnen and naperie into other colours, as well
C as their woollen cloth. Which practise was first seene in the Armada or fleet of K. *Alexander* the Great, upon the great river Indus, at what time as his captaines and Admirals in a certaine skirmish that they made with the Indians, chaunged the armes and ensigns of their ships: wherat the inhabitants (beeing upon the shore and strond) were astonied to see their sailes and streamers painted with divers colours waving in the wind. Semblably, the Sailes of that ship were died purple, wherein *M. Antonius* togither with *Cleopatra* came to Actium, and in which they fled both from thence and escaped. And in deed heretofore a red purple banner erected on the top of the mast, was the badge or ensigne of the royall Admirall ship: but afterwards they began at Rome to encourtaine their Theatre with such veiles died in colours, onely for shade: an invention devised by *Q. Catulus* at what time as hee dedicated the temple of the Capitoll. In
D processe of time, *Lentulus Spinter* (by report) was the first man that in the solemnitie of the games and plaies Apollinare, drew fine courtains over the great Amphitheatre at Rome: howbeit not long after, *Cæsar* Dictatour caused the grand Forum or Common-place at Rome to be covered all over with such rich courtains; yea and the high faire street called Sacra, to be hanged on both sides from his owne dwelling house to the very Capitoll cliffe: which magnificent and sumptuous sight, was more wondered at and seene with greater admiration, than the brave shew and Tourney that he set out at the same time of Sword-players at sharpe and to the utterance. Then followed *Marcellus* also the sonne of *Octavia*, sister to the Emperour *Augustus*, who in his owne Ædileship & in the tenth Consulship of his uncle *Augustus* beforesaid, upon the Calends or first day of August that yeare, caused the Romane Forum to be drawn all over and shadowed
E with the like courtains, although hee represented at that time no solemnitie at all of games and plaies: and this he did onely, that they who came to plead at the barre, might stand under shade more holesomely. Lord, what a chaunge was here at Rome since the daies of *Cato* the Censor, who thought it meet and requisit, yea and gave advise that the said Forum or great Hall of common Pleas should be paved and laid all over with caltraps under foot, To keep our Lawyers and busie pleaders from thence. Of late daies there were seene in the Amphitheatres of Emperour *Nero*, traverses drawne upon cords and ropes, with fine courtains of blew azure colour like the skie, and those beset with starrs; where the very floore of the ground under mens feet, was coloured red. And wherefore serve these in cloister-courts and walkes now, but to keepe the mosse forsooth upon the ground, or rather the fine fret-worke in pavements, from Sun-burning? But for
F all these paintings and rich dyes, yet when all is done, the white linnen held the owne still & was highly esteemed above all colours. And no doubt in great price such cloth was in the time of the Trojane war: and in good faith I see no reason why it should not be as well in bloodie battails as at broken shipwracks. Howbeit *Homer* testifieth, that few there were who went to the wars with linnen habergeons or curets: but it should seem that the Poet (as the better learned expositors do interpret)

* 24 graines.
i. about three halfe-pence the graine, and better.
*Hereof were made ξυλὶ μωμὶ, wherof *Galen* writeth 3. κῶμ. with which lint he cured *Heraclides* and staunched his bleeding.

terpret) meant, That ſhip-tackling, ſailes, cords, and ropes, were made of this Line, ſpeaking as he doth of * Sparta, whereby hee underſtandeth in deed Sata, *i.* cordage of ſowne Line or garden Flax. G

* Called by *Pacuvius, Serilia*, as *Feſtus* noteth.

CHAP. II.

The nature of Spart or Spaniſh broome: the manner of handling and dreſſing it: when it was firſt uſed in cordage: what plants there be that live and grow without root.

SPart verily was not in uſe and requeſt for many hundred yeares after, neither was it knowne before the firſt voyage and expedition that the Carthaginians made in warlike manner into Spaine. An hearb this is alſo, growing of it ſelfe without ſetting or ſowing (which in deed it cannot abide.) Full well and properly it mought be called, the ruſh of a dry and leane ground, and a very defect or imperfection appropriate to that countrey alone of Spaine: for, to ſay a truth, it is the fault and badneſſe of the ſoile in the higheſt degree, that breedeth it; and where it commeth up, nothing elſe can be ſowed and ſet, or will grow at all. That in Africke or Barbarie is very ſmall, and good for nothing. In the territorie of new Carthage or Cartagena (which is in the higher part of Spaine) it groweth much: howbeit all that tract is not given to breed it, but looke where it commeth up, you ſhall ſee whole mountains all over-ſpread and covered with it. Hereof the ruſticall peaſants make their mattraces and beds; this is their fewell wherewith they keepe fires; of it they make their torches and links to give them light; with it they are commonly ſhod; and the poore ſhepheards cloath themſelves therewith. Howbeit, hurtfull is this plant unto cattaile, unleſſe it be the tender tops and crops of the braunches, which they may brouſe and eat without harme. For other uſes, when the Spaniards would plucke it up, they have much adoe withall, and a great toile about it; for their legs muſt be well booted as it were with grieves; their hands covered with thicke hedging gloves, as gantlets: and being thus armed at all points, yet they lie tugging at it, pulling, writhing, and wreſting the ſame with hookes and crooks either of bone or wood, untill they have their will of it. Come they about this worke in winter time, it is in manner unpoſſible to get it up: but from the Ides [*i.* the mids] of May unto mid-Iune, it is very tractable: for this is the time and ſeaſon when it is ripe, and then commonly they gather it for their ordinarie uſes before-named. Being once pulled and ſorted, the good from the bad, it is made up into bundles and faggots with the life ſtill in it, and ſo piled on a heape for the firſt two daies; the third day they unbind it, lay it looſe and ſcattering in the Sun for to be dried: which done, they make it up againe into faggots, and ſo bring it in and lay it up within-houſe. After all this, they ſteepe it in ſea water (for that is beſt) or els in freſh, for want of the other. After this watering, it muſt be dried in the Sun, and then ſteeped in water a ſecond time: but if a man have urgent occaſion to uſe it preſently out of hand, he muſt put it in a great tub or bathing veſſell, and let it ſoke there in hot water a time. Now if when it is dried againe, it be ſtiffe and will ſtand alone, they take it for a ſure ſigne that it is ſufficiently watered, and hath that which it ſhould have. This is a very neare and readie way, and ſaveth them much labour. Thus being prepared one of theſe two waies, it ought to be brayed and beaten before it will ſerve the turne; and then no cordage in the world is better than that which is made of it, nor laſteth ſo well within the water and the ſea eſpecially, for it will never be done. For drie worke, I confeſſe, and out of the water, the gables and ropes made of hempe are better; but Spart wrought into cordage will live and receive nouriſhment within the water, drinking now the full as it were to make amends for that thirſt which it had in the native place where it firſt grew. Of this nature is Spart beſides, that if the ropes made thereof be worne, and (with much occupying) out of repaire, a little thing will mend and refreſh them, yea & make them as good as ever they were; for how old ſoever it be, yet will it be wrought very well againe with ſome new among. A wonderfull thing it is to conſider and looke into the nature of this hearbe, and namely, how much it is uſed in all countries, what in cables and other ſhip-tackling, what in ropes for Maſons and Carpenters, and in a thouſand neceſſities of this our life. And yet ſee! the place which furniſheth all this ſtore, lying along the coaſt of new Carthage, we ſhall find to bee within the compaſſe of thirtie miles in breadth, and leſſe ſomewhat in length. And verily, if it were fetched farther off within the maine, the cariage would not quit for the coſt and expences. H I K L M

The

A The Greekes in old time emploied their rishes in drawing of ropes: as may appeare by the very word σχοῖνος, which signifieth with them a rish, and a rope. But afterwards they use their cordage of Date tree leaves, and the thin barks of the Linden or Tillet tree: from whence verily, like and probable it is, That the Carthagians borrowed both their use of Spartum, and manner also of dressing it.

*Sic Spartum nunc restemnunè plantâ è qua restes fiunt, figunt.

Theophrastus writeth, That there is a bulbous plant, with a root like an Onion-head growing about the bankes of rivers; betweene the utmost rind wherof, and that part within, which is good to be eaten, there is a certaine cotton or woollie substance, whereof folke use to make *woollen socks and some such slight peeces of apparell. But he neither named the countrey where they be made, nor setteth downe any other particularities more than this, That the said plant they called Eriophoron [i. Bearing wooll:] so far as ever I could find in any copies comming to my hand. B And albeit *Theophrastus* was otherwise a diligent and curious writer of plants, and searched deep into the nature of simples, foure hundred and ninetie yeares before my time, yet hath hee made no mention at all of Spart, a thing that I have observed and noted in him once alreadie before now. Whereby, evident it is, that the manner of dressing and using Spart, came up after his daies.

*Impilia, nidi a udones.

And since we are entred into a discourse of the wonders of Nature, I will follow on still and continue the same, wherein this may bee one of the greatest, That a thing should live and grow as a plant without root. Looke but to those Mushroomes or Toad-stooles, which are called in Latin Tubera: out of the ground they grow, compassed about on every side with the earth, without root, without any filaments, or so much as small strings & beards resembling a root whereupon C they should rest: the place where they breed doth not swell or beare up one jote, nay, it sheweth no chinke or crevasse at all out of which they should issue: and to conclude, they seeme not once to sticke and cleave to the ground whereupon they stand. A certain barke or pill they seem to have, which encloseth them, such as (to speake plainely) we cannot say is earth indeed, nor any thing else but a very brawnie skin or callositie of the earth. These breed commonly in drie & sandie grounds, in rough places full of shrubs and bushes, and lightly in none else. Oftentimes they exceed the quantitie of good big Quinces, even such as weigh a pound. Two sorts there bee of them. Some be full of sand and grit, and such plague folkes teeth in the eating: others be cleane, and their meat is pure, without any such thing among. They differ also in colour: for there be of them that are red: yee shall have those also that seeme blacke, and yet are white within. But the D best simply are those that come out of Affricke or Barbarie. To determine resolutely whether they grow still from day to day, as other plants; or whether this imperfection of the earth (for better I know not how to call it) commeth at one instant to that full growth that ever it will have; also, whether they live or no; I suppose it is a difficult and hard matter: surely this is certaine, that their putrifaction is much after the manner of wood, and they rot both alike. Many yeares past there are not, since *Lartius Licinius*, sometimes lord Pretour and Governour under the Romans in the province of Spaine, chaunced (of my knowledge) whiles hee was there at Carthage, in biting one of these Mushromes, to meet with a silver Romane denier within it, that turned the edge againe of some of his fore-teeth, and set them awrie. Whereby a man may perceive manifestly, that they bee a certaine excrescence of the very earth, gathering into a round forme, as all other E things else that grow naturally of themselves, and come neither by setting nor sowing.

Chap. III.

*Of the excrescence named *Misy: and of other such like Puffes and Mushromes. Of these flat Fusses and broad Toad-stooles, called *Pezici. Of the plant or hearbe *Laserpitium. Of Magydaris. Of Madder. Of Sope-weed, or the Fullers hearbe Radicula.*

*or, Misoa.
*or, Pezitæ.
*Laser-wort.

WIthin the province of Cyrenaica in Affricke, there is found the like excrescence, called Misy, passing sweet and pleasant, as well in regard of the smell as the taste, more pul- *or, Mison rather, according to *Turneb.* F pous also & fuller of carnositie than the rest: likewise, another of that nature in Thracia, called Ceraunium. As touching all the sorts of Mushromes, Toad-stooles, Puffes, Fusbals or Fusses, these particulars following are observed. First it is known for certaine, That if the Autumn be much disposed to raine, and withall, the aire bee troubled and disquieted with many thunders, during that season: there will be good store of such Mushromes, &c. especially (I say) if it thunder much,

much. Secondly, they will not laſt above one yeare. *Item*, The tendereſt and daintieſt bee thoſe that breed in the Spring, and that indeed is the beſt time for them. *Item*, In ſome countries the overflow of rivers engender Muſhromes, and namely, at Mitylene, where (by report) they will not otherwiſe grow but upon flotengrounds, & namely, in ſuch places whither the water hath brought from Tiara, a certaine vegetative ſeed to breed them. And verily, that Tiara is wonderfully ſtored and repleniſhed with ſuch. As touching the Truffles or Muſhromes of Aſia, the moſt excellent of all others be neare unto Lampſacum and Alopeconneſus: but the beſt that Greece yeeldeth are in the territorie about the citie Elis. In this Toad-ſtoole or Muſhroome kind are thoſe flat Fuſſes and Puffes to be reckoned, which the Greekes name *Pezitæ: as they have no root at all, ſo they bee altogether without either ſtele or taile. G

* or, Pezici.

In the next place to theſe I muſt needs ſpeake of the moſt noble and famous plant Laſerpitium, which the Greekes name Silphium, diſcovered and found firſt in the aboveſaid province of Barbarie Cyrenaica. The juice or liquor drawne out of this hearb they call *Laſer; a drug ſo magnified, of ſuch ſingularitie and uſe in Phyſicke eſpecially, that it was ſold by weight, and a dram thereof coſt ordinarily a *Romane denier. For theſe many yeares of late, there is none of this plant to be found in that countrey of Cyrenaica beforeſaid: for that the Publicans and Farmers of the paſtures & grounds there, (under the people of Rome) do put in their cattell among theſe plants, and eat all downe by that meanes; finding thereby a greater gaine and commoditie, than by letting them ſtand for the juice or liquor aforeſaid. One onely ſtalke or ſtem thereof hath ben found in our daies, which was ſent unto the Emperour *Nero* as a preſent, for a great noveltie. If it chaunce at any time, that either ſheepe or goat (which commonly bite neare to the ground) doe light upon a young plant thereof, newly peeping forth and not evident to bee ſeene, you ſhall know it by theſe ſignes, The ſheepe preſently ſo ſoone as ſhe hath taſted it, will drop aſleepe, and the goat fall a ſneeſing. For theſe many years, the merchants have brought us into Italie no other *Laſer, than that which groweth abundantly in Perſis or Media, and in Armenia: but it is far inferior to this of Cyrenaica, and commeth ſhort of it for goodneſſe. And this that wee have is no better than it ſhould be, for they ſophiſticate and corrupt it with gum, with Sagapeum, or els with bruſed Beanes. In regard of which ſcarſitie, I cannot chuſe but remember that which befell at Rome in that yeare wherein *C. Valerius* and *M. Herennius* were Conſuls, when by great good fortune there was brought from Cyrenæ thirtie pound weight of the beſt Laſer, and ſet abroad to be ſeene in open place, of all commers. As alſo I may not let paſſe another occurrent, namely, how *Cæſar* Dictatour at the beginning of the civile war, tooke forth openly out of the chamber of the citie, with other treaſure both of gold and ſilver, a hundred and eleven pounds of the beſt Laſer. Moreover, this one thing more I cannot forget: the beſt and moſt renowned Greeke Authors have left in writing, That ſeven years before the foundation of the citie Cyrenæ, which was built a hundred fortie and three yeares after our citie of Rome, this plant Laſerpitium that beareth the ſaid Laſer, was engendered at one inſtant, by occaſion of a certaine thicke, groſſe, and blacke ſhewer of raine in manner of pitch, which ſuddainely fell and drenched the ground, about the hortyards or gardens of the Heſperides, and the greater Syrtis: The which raine was effectuall, and left the ſtrength thereof, for the compaſſe of *foure thouſand ſtadia within Affricke or Barbarie. They affirme moreover, That the hearbe Laſerpitium, there growing, is of ſo ſavage and churliſh a nature, that it cannot abide any culture or good ordering by mans hand: but if one ſhould goe about to tend and cheriſh it, it would rather chuſe to be gone into the deſert and unpeopled parts of the counirey, or elſe winder away & die. Moreover, they ſet down this deſcription of it, That it hath many roots, & thoſe big and thicke; a ſtem or ſtalke, reſembling the hearb Sagapeum or Fennel-geant, howbeit, not altogether ſo great: the leaves of this plant, which they termed by the name of Maſpetum come very near in all reſpects to thoſe of Smallach or Perſely. As touching the ſeed that it beareth, flat and thin it is in manner of leaves: but the leafe it ſelfe therof, ſheddeth in the Spring time. The cattel that uſe to feed therupon (and wherof they be very greedie) firſt fall a ſcouring: but afterwards, when they be cleanſed and rid of ill humors, begin to wax fat: and their fleſh by this meanes becommeth wonderfull ſweet and pleaſant. They report moreover, That after the leaves be fallen, men alſo were wont in old time to eat the ſtem or ſtalke thereof, either roſted and baked under the cindres, or elſe boiled and ſodden in water: and their bodies likewiſe for the firſt 40 daies enſuing, did nothing but purge untill they were cleared of all diſeaſes, breeding by occaſion of any Cacochymie or collection of corrupt humors within them. H I K L M

* Some take it for *Benioin*, or *Aſa dulcis*.
*Which is equivolent in weight to a dram, *i.* 7 *d.ob.* Engliſh.

* Thought to be *Aſa fœtida*.

*500 miles.

Now

A Now concerning the juice or ſoveraigne liquour beforeſaid, the manner was to draw it after two ſorts; to wit, by ſcarification, either out of the root; or forth of the ſtem and maiſter ſtalke. And hereof it came to have two names, Rhizias and Caulias. But the later of theſe twain, to wit, that which came of the ſtem, was counted the worſt, ſubject to putrifaction, and ſold cheaper than the other. To come now to the root of Laſerpitium, it hath a blacke rind or barke upon it, wherewith the merchants uſe to ſophiſticat many of their drugs. As for the manner of dreſſing and ordering the juice thereof: it was no ſooner drawne, but they put it into certaine veſſels, together with brans among; then ever and anone they plied it with ſtirring and ſhogging, untill it had loſt the cruditie and verdure thereof, and by that working came to the maturitie and perfection: for if it were not thus well followed, ſoone would it catch a vinow, begin to putrifie, and ſo
B continue but a while. In this worke of theirs they had an eie unto the colour how it chaunged: for when they perceived it to be high, and that they ſaw it once drie and have done ſweating & breathing out the raw humiditie and vapour within, then they knew thereby that it was wrought ſufficiently, and come to the full ripeneſſe. Others there bee who ſay, that the root of Laſerpitium beareth more than a cubit in bigneſſe, and that out of it there ſwelleth an excreſcence, above the ground, out of which there was wont by way of inciſion to iſſue forth a certaine white juice in manner of milke: upon which grew the ſtalke or ſtem which they called Magydaris. And they affirme beſides, that it beareth leafy flat graines for the ſeed, in colour like gold, which ſhed preſently upon the riſing of the Dog-ſtar, eſpecially if the wind be South. Of which grains or ſeeds fallen to the ground, young plants of Laſerpitium uſe to grow up underneath, which within the
C compaſſe of one yeare will thrive both in root and ſtem to the juſt and full perfection. They have written moreover, that the uſe was to dig about their roots, and to lay them bare at certaine times of the yeare. Alſo, that they ſerved not to purge cattell as is beforeſaid, but to cure them if they were diſeaſed: for upon the eating thereof either they mended preſently, or elſe ended and died out of hand; but few they were that miſcaried in this ſort. As touching the former opinion of purging and ſcouring, true it is, that it agreeth well to the other Silphium or Laſerpitium of Perſia, aforeſaid. Another kind there is of it, named Magydaris, more tender & leſſe forcible & ſtrong in operation than the former; and affourdeth no ſuch juice or liquor at all: it groweth about Syria, and commeth not up in all the region about Cyrenæ.

Moreover, upon the mount Pernaſſus there is great plentie found of a certaine hearb, which
D the inhabitants would needs have to bee Laſerpitium, and ſo they call it: wherewith indeed they are wont to abuſe and ſophiſticat that ſingular and divine plant, the true Laſerpitium, ſo highly commended, and of ſo great account and eſtimation. The principall and beſt triall of the true and ſyncere Laſer, is taken from the colour, ſomewhat enclining to redneſſe without: breake it, you ſhall have it appeare white within: and anone tranſparent. If you drop water upon it, or otherwiſe thin ſpittle, it will reſolve and melt. Much uſe there is of it in many medicines, for to cure mens maladies.

Two plants more there bee, well knowne to the common ſort and baſe multitude, and to ſay a truth, few elſe are acquainted with them, notwithſtanding they be commodities of much gaine, and many a penie is gotten thereby. The firſt is Madder, in great requeſt among diers and curri-
E ers: and for to ſet a colour upon their wooll and leather, right neceſſarie. The beſt of all and moſt commended is our Madder of Italie, principally that which groweth about villages neare unto our citie of Rome. And yet, there is no countrey or province lightly but is full of it. It commeth up of the owne accord, and is ſowed beſides of ſeed, and ſet of ſlips in manner of Ervile. Howbeit, a prickie ſtalke it hath of the owne: the ſame is alſo full of joints and knots, and commonly about every one of them it hath five leaves growing round in a circle. The ſeed is red. What medicinable vertues it hath, and to what purpoſe it ſerveth in Phyſicke, I will declare in place convenient.

The ſecond is that which is called in Latine Radicula, [*i.* Sope-wort:] an hearb, the juice wherof Fullers uſe ſo much to ſcoure their wooll withall; and wonderfull it is to ſee how white, how pure,
F how heat and ſoft it will make it. Beeing ſet, it will come up and grow in any place: but of it ſelfe without mans hand, it groweth moſt in Aſia & Syria, among rough, craggie, & ſtonie grounds. The beſt is that which is found beyond the river Euphrates, and that beareth a ſtem like tall Fenell, howbeit ſmall and ſlender, and whereof the inhabitants of the country there doe make a delicat diſh; for beſides that it hath a commendable taſt and much deſired, it giveth a pleaſant co-

lour

lour to what meat ſoever is ſodden in the pot with it. It beareth a leaſe like the Olive: the Greeks G
call it Strution: it floureth in Summer: lovely it is to the eie, but no ſmell at all it hath to content the noſe: prickie moreover it is like a thorne, and the ſtalke notwithſtanding covered with a ſoft downe: ſeed hath it none; but a big root, which they uſe to cut, ſhred, and mince ſmall for the purpoſes beforeſaid.

Chap. iiii.

The manner of trimming and ordering Gardens: the ſorting of all thoſe things that grow out of the Earth, into their due places, beſides corne and plants bearing fruit.

H

IT remaineth now to treat of Gardens, and the carefull diligence thereto belonging: a commendable thing in it ſelfe, and recommended unto us beſides by our fore-fathers and auncient writers, who had nothing (to ſpeake of) in more account and admiration in old time, than the gardens of the Heſperides, of *Adonis*, and *Alcinoüs*: as alſo thoſe pendant gardens upon tarraces and leads of houſes, whether they were thoſe that *Semyramis* Queene of Babylon, or *Cyrus* K. of Aſſyria, deviſed and cauſed to bee made. Of which, and of their workmanſhip, my intent is to make a diſcourſe in ſome other booke. Now for this preſent (to goe no farther than Rome) the Romane KK. verily themſelves made great ſtore of gardens, & ſet their minds upon them: for ſo we read that *Tarquin* ſurnamed the Prowd (the laſt king of Rome) was in his garden when he gave diſpatch unto that meſſenger that was ſent from his ſonne about a cruell and I
bloudie errand, for to know his fathers advice and pleaſure as touching the citizens of Gabij. In all the twelve tables throughout which containe our auncient lawes of Rome, there is no mention made ſo much as once of a Grange or Ferme-houſe, but evermore a Garden is taken in that ſignification, and under the name of Hortus [*i.* a Garden] is compriſed Hæredium, that is to ſay, an Heritage or Domaine: and hereupon grew by conſequence, a certain religious or ridiculous ſuperſtition rather, of ſome whome wee ſee ceremoniouſly to ſacre and bleſſe their garden and hortyard dores onely, for to preſerve them againſt the witchcraft and ſorcerie of ſpightfull and envious perſons. And therefore they uſe to ſet up in gardens, ridiculous and fooliſh images of Satyres, Antiques, and * ſuch like, as good keepers and remedies againſt envie and witchcraft; howſoever *Plautus* aſſigneth the cuſtodie of gardens to the protection of the goddeſſe *Venus*. K
And even in theſe our daies, under the name of Gardens and Hortyards, there goe many daintie places of pleaſure within the very citie: under the colour alſo and title of them, men are poſſeſſed of faire cloſes and pleaſant fields, yea and of proper houſes with a good circuit of ground lying to them, like pretie fermes and graunges in the countrey: all which, they tearme by the name of Gardens. The invention to have gardens within a citie, came up firſt by *Epicurus* the doctor and maſter of all voluptuous idlenes, who deviſed ſuch gardens of pleaſance in Athens: for before his time, the manner was not in any citie, to dwell (as it were) in the countrey, and ſo to make citie and countrey all one, but all their gardens were in the villages without. Certes at Rome, a good Garden and no more, was thought a poore mans chievance; it went (I ſay) for land and living. The Garden was the poore commoners ſhambles, it was all the market place he L
had for to provide himſelfe of victuals. O what a bleſſed, what a ſecure, and harmeleſſe life was that, ſo long as men could be content to take up with ſuch a pittance, and ſtay themſelves ſo! but better it is I trow, for to ſatisfie the appetite of our wanton gluttons and bellygods, to ſearch into the botome of the deepe ſea: for to get (I ſay) oyſters of all ſorts, to feare no tempeſt nor ſhipwracke: for to meet with daintie foule, to ſend out one way as far as beyond the river Phaſis for thoſe birds, which a man would thinke were ſure enough and ſecured from the fouler, by reaſon of the fearfull tales that go of them, and of the daunger of thoſe that approch neare unto them (and yet why ſay I ſo, conſidering they are the better eſteemed & more pretious, the farther they be fet and dearer bought:) to have purveyours another way in Numidia and Æthiopia, for the rare birds there about the ſepulchres; among thoſe ſepulchres (I ſay) where in ſtead of meeting M
with game, they ſtumble otherwhiles upon their owne graves and never come home againe: and laſtly, to have others to chace the wild and ſavage beaſts of the forreſt, yea and to maintain fight with them, in daunger to be deuoured as a prey, by thoſe which ſoone after muſt ſerve as veniſon for other men to eat. But to come againe to theſe commodities of the Garden, and the cates

which

* as *Priapus*, *Phallí*, and *Ithyphalli*.

A which they affourd: How cheape be they? how readie at hand? how fitted are they not onely to fill the belly and ſatisfie hunger, but alſo to pleaſe the tooth and content the appetite; were it not that wealth and fulneſſe ſtand in the way: the ſame that loath all things els beſide and diſdaine (no marveile) theſe ordinarie viands. Well mought it be born with and ſuffered, that apples and other fruits of the trees, ſuch as are more exquiſite and ſingular than the reſt, in regard of their beautie, bigneſſe, pleaſant ſavour, or ſtraunge and monſtrous manner of growing, even againſt the courſe of Nature; that theſe dainties (I ſay) ſhould be reſerved for our rich and mightie men of the world; that poore men ſhould bee debarred and forbidden once to taſt thereof. In ſome ſort tollerable alſo it is, that great States and wealthie perſonages ſhould be ſerved at their table with old wines, fined and refined, with wines delaied, neatified, and guelded as it were by paſſing
B through an Ipocras bag; that ſuch ſhould drinke no other but that which was wine before they were borne, how aged ſoever they be and far ſtept in yeares. We may abide moreover, that our graund-paunches and ryotous perſons have deviſed for themſelves a delicate kind of meat out of corne and graine (which ſhould ſerve for bread only) and the ſame made of the fineſt and pureſt floure, boulted and ſearſed from the reſt, and none but that: to ſay nothing of the curious worke in paſtrie, the fine cakes, wafers, and marchpaines, artificially carved, engraved, and painted in imagerie, as if theſe wantons could not live forſooth but of ſuch deviſes. That there ſhould be a difference alſo in bread, anſwerable to the diſtinction of States in the cittie, one ſort for noble Senators, another for the worſhipfull knights and Gentlemen, and a third for the meane commoners and multitude. Finally, that in other victuals there ſhould be a deſcent by ſo many de-
C grees, from the higheſt to the loweſt, may carrie ſome apparence of reaſon and be allowed. How then? muſt there be a diſtinction therfore invented in woorts and garden pot-hearbs? Muſt the difference of perſons according to their purſe, appeare alſo in a diſh of * three farthings price and no better? Surely I ſee no ſenſe nor congruitie at all in this. And yet forſooth ſuch hearbs there be that the tribes of Rome (the greater part I meane of the Roman citizens) may not preſume to eat; as if the earth had brought them foorth for rich men only, being no meat ywis for poore people. Why (ſay they in ſcorne and contempt of povertie) here is the ſtem of a woort ſo well growne, here is a cabbage ſo thriven and fed, that a poore mans boord will not hold it. Certes, dame Nature ordained at the firſt, That Sperage ſhould grow wild and commonly in all places of the field, as if ſhe meant thereby, that every man that would might gather them for to
D eat: and now behold, they are cheriſhed carefully in gardens: and from Ravenna, you ſhall have of theſe garden Sperages ſo faire and big, as three of their crops or heads will weigh a good pound, and are ſold after three a Romane As. O the monſtrous bellies that be now adaies! O the exceſſive gluttonie and gourmandize which now raigneth in the world! Is it any marveile that poore aſſes and ſuch dum beaſts may not feed upon * Thiſtles, when the Commons of Rome are reſtrained and forbidden to eat * Thiſtles and dare not once touch them? And yet here is not all: our waters alſo bee diſtinguiſhed and ſet apart for ſome perſons; even the very Ele-
E ments whereof this world conſiſteth are diſtinct, ſevered, and raunged into ſundrie degrees, and all at the pleaſure of monyed men: for ſome you ſhall have to drinke ſnow, others yce: and will you ſee in one word their folly and vanitie? the very miſerie that high mounzaines are puniſhed and plagued with; they make their pleaſure of, and therewith content and delight the throat. Theſe men lay for to be provided of chilling cold againſt the heat of Summer, and ſeeke by all means that they can poſſible, to have ſnow remaine white ſtill and frozen (as it firſt was) out of winter ſeaſon, even in the hoteſt moneths of the yeare, which are moſt oppoſite unto the nature of ſnow. Some there be, who firſt ſeeth their water, and anon let it congeale againe to yce, after it was once ſcalding hot. Wherby we may ſee, how man never contenteth himſelfe in Natures workes, but croſſe he will be alwaies and peeviſh; and look what pleaſeth her, ſhall diſpleaſe him: for who ever would have thought that any one hearb ſhould have growne for the rich, and not as well for the poore? Well, let no man for all this, caſt about and looke toward mount Sacer, or Aventine hill, that the Commoners againe ſhould by way of inſurrection riſe, and in the
F heat of their bloud depart aſide thither, as ſometimes they did in a mutinous fit of theirs, in high diſcontentment with the Nobilitie. For what needs that, ſince they may be ſure that Death ſhortly will bring them together, and make equall, betweene whom now for a while Riches hath put a bar, and made diſtinction of place and degree.

But now it is time to returne againe unto our gardening, from which we were digreſſed. Certaine

* *Etiam tunc aſſe venali.*

* *Cardunus.*
* Artichokes, which are no better than *Cardui altiles*, i. Garden-Thiſtles.

taine it is, that in old time, there was no market place at Rome yeelded greater impoſt unto the State, than the Hearberie; in ſuch requeſt and ſo much called for, were woorts and pothearbes. In regard of which exactions and paiments evermore going out of their purſes, the Commons in the end complained, laid open their greefes, and made their mone to the Senat, of this burden and heavie load; and never gave they over crying to them ſtill with open mouth, for redreſſe, untill they obtained a full releaſe of rent and cuſtome, raiſed before from the tallage and portage of this kind of ware and commoditie. Whereby it was well knowne and found, by long experience, that there was no one thing of greater revenue, and more aſſured gaine; none that ſtood ſo ſafe and certaine; none leſſe ſubject to the will and pleaſure of Fortune and Caſualtie, than Gardinage: as being taken for no leſſe than a yearely fee, that poore men might make account of as ſure as if it were in their purſe. Againe, for the rent thereof paied to the landlord, there was ever good ſecuritie: the ground or ſoile was a ſufficient ſuretie; the profits thereof were alwaies ſeene and expoſed openly to the eie; and lightly no weather whatſoever hindered the crop and gathering thereof. *Cato* highly commendeth the garden Coules or Cabbages, whereby we may know, that in his daies Gardens were in ſome reſpect. Alſo, in times paſt, as Husbandmen in the country were knowne eſpecially, and their wealth valued by their gardens, ſo when there was a garden-plot ſeen lying out of order and not well kept, men judged ſtreightwaies, that the miſtris or dame there dwelling (for commonly this charge lay upon women) was but an ill houſewife and thriftleſſe in hir houſe: for in default of Gardinage, what remedie was there then, but to draw the purſe ſtrings, and goe for every thing either to the Butcherie or the Hearb-market, and ſo to live upon the pennie. Neither were in thoſe daies Coules or Cabbages, ſo well eſteemed as now they bee: for why? they could not away with double meats one upon another, but condemned all diſhes that required ſome addition, as helpe of ſauce, broth, or ſuch like to draw them downe. This was to ſpare coſt, and by this meanes they ſaved oile. For as touching the pickle ſauce * Garum, all thoſe were reproched for gourmandiſe and gluttonie, who could not eat fleſh or fiſh without it. And therfore men tooke greateſt contentment in their gardens and garden hearbs: thoſe were at hand and readie at all times; no great cooquerie was required to dreſſe ſuch diſhes; no need of fire, no expence of wood and fewell. And hereupon it came, that Salads of hearbs were called * Acedaria, ſo little care and trouble went to the proviſion and making of them. Beſides, light they are and eaſie of digeſtion, they breed no heavineſſe in the head, they offend not the braine nor any of the ſenſes; and leaſt of any thing make quarrell to the loafe and ſpend little bread. That quarter of the garden which ſerveth an houſe with poignant hearbs inſtead of ſawce to give a commendable taſt & ſeaſoning to our meat, ſheweth plainly that the maſter and miſtreſſe thereof were not woont to run in the merchants bookes for ſpicerie, but chaunged the Grocer or Apothecaries ſhop, for the garden; for the ſame contentment they had out of it as from thence: alſo that they ſought not either for pepper out of India, or for any kitchin ſpices tranſported from beyond the ſeas out of far countries. And as for the other quarters ſet out with beds of floures and ſweet ſmelling hearbs, what reckoning was made of them in old time may appeare by this, That a man could not heretofore come by a commoners houſe within the cittie, but he ſhould ſee the windowes beautified with greene quiſhins, wrought and tapiſſed with floures of all colours; reſembling daily to their view the gardens indeed which were in out-villages: inſomuch, as being in the very heart of the citie, they might thinke themſelves in the countrey; untill ſuch time as theſe ſlie theeves and night-hookers, the wicked rable (I ſay) and offſcouring of the baſe multitude (not to be reckoned) committed ſuch fellonious outrages, as forced men to naile up covers and caſes before theſe faire lights and beautifull proſpects. Let us give therfore to Gardens their due honor; let us not (I ſay) deprive things of their credit and authoritie, becauſe they are common and nothing coſtly: for I may tell you, ſome of our nobilitie, yea and the beſt of the citie, have not diſdained to take their ſurnames from thence, nay they ſuppoſed themſelves highly credited and honoured therby. Thus we ſee, that in the noble houſe and linage of the *Valerij*, ſome were not abaſhed nor aſhamed to be called *Lactucini*, in regard of the beſt kind of Lectuce that they either had in their gardens, or affected moſt. And here I cannot chuſe but mention by the way, the grace that hath growne to our name, by occaſion of ſome diligence employed and paines taken this way; whereby certain Cherries beare our name and are called *Pliniana*, in teſtimonie of our affection and love to that fruit: which I remember the rather, for that *Virgil* confeſſeth how hard a thing it is, that ſo ſmall matters as theſe bee, ſhould

G H I K L M

* Much like to our Anchoves.

* *ab ἁ & κνάω.*

grow

A grow into the name and reputation of honour any way. And now to the purpose. No man doubteth, but that a garden should lie to a graunge or ferme-house, and joine close unto it: as also, that above all things there should bee water at commaund, from some river or brooke running under, yea, and through it, if it were possible: if not so, yet that they are to be watered with pit water fed with Spring, either drawn up by plain poles, hooks, and buckets; or forced by pumps and such like, going with the strength of wind within enclosed, or els weighed with Swipes & Cranes. Moreover, that a garden-plot should bee broken up and have the first digging presently upon the comming of the West wind Favonius in the beginning of the Spring: and for any thing that must be sown or set there, against Autumne, it ought to be prepared & dressed readie for to receive seeds and sets, foureteene daies after: but for Winter stuffe, it should have a stirring or se-
B cond tilth and delving before the Winter Sunstead or shortest day of the yeare. Also, this is to be noted, that there would not be a greater plot of ground taken in, empaled and fenced about for a garden, than of eight acres or Iugera at the most. Now for the manuring & ordering thereof: first, for three foot deepe the dung would be tempered and mingled with the mould. *Item*, It ought to be divided in principall quarters: the same also must be set out into severall beds, raised somwhat high and lying upward. *Item*, Requisit it is, that every quarter have as well certaine open gutters or furrowes drawne about them, as convenient allies betweene to give both passage for men to come and goe gainely; and also a currant to the course of water that shall bee let in, when the springs be set open or sluces drawne.

Garden plants and hearbes be not all commendable in one and the same respect. For of some
C the goodnesse lieth onely in their bulbous and round root: of others contrariwise in their head aloft. There be of them that have no part good but their stem or maister stalke: and there are for them againe, the leaves whereof be only eaten. Now, a man shall have amongst them those that are wholesome meat, both leafe and stalke. In some the seed or graine, in other the outward pill or rind alone of the root is in request. And as there be that tast well in the skin or cartilage & gristly substance without-foorth, so there are that have either their pulpous carnositie within, or else their fleshie coat above, as daintie. All the goodnesse of many of them lieth hidden within the earth: and of as many againe above the ground: and yet some there bee that are all one, as good within as without. Some traine along and runne by the ground growing on end still as they creepe, as Gourds and Cucumbers. And yet the same, as well as they love to bee neare
D the earth, yet are led upon trailes, and hang thereon, yea, and bee knowne for to rampe upon trees: Howbeit, much weightier and better nourished bee they that keepe beneath. As for the Cucumber, it is the cartilage substance of the fruit thereof, that delighteth and pleaseth our tast: for of all fruits this propertie it alone hath, that the utmost rind which it beareth, groweth to a very wood when it is once ripe. Within the earth lie hidden and are kept all Winter, Raddishes, Navews, Turneps or Rapes, Elecampane also after another sort; so doe Skirworts, and Parseneps or Wypes.

Moreover, this I would advertise the Reader, that when I tearme some hearbes Ferulacea, I meane such as resemble in stalke Dill or the great Mallowes. For some writers doe report, That in Arabia there be a kind of Mallowes, which after they have growne six or seven months, come
E to bee in the nature of pretie trees: insomuch, as their stalkes streightwaies serve in stead of walking staves. But what should I stand upon this? In Mauritania, by report of travellers, neare the frith or arme of the sea adjoining to Lixos, the head cittie of Fez, where sometimes (as folke say) were the hort-yards and gardens of the Hesperides, not above halfe a quarter of a mile from the maine Ocean, hard unto the chappell of *Hercules* (farre more auncient than that temple of his, which is in the Island Calis) there groweth a Mallow, that is a verie tree indeed: in height it is twentie foot, and in bodie bigger and thicker than any man can fadome. In this kind I meane for to raunge the Hempe likewise. And as I purpose to tearme such Ferulacea; so there bee some others, that I will call Carnosa, such as resemble the river or fresh-water Spunges, which commonly are seene upon over-floten meddowes, where the water standeth. For as
F touching the fungous substance or callositie of some plants, I have alreadie spoken thereof in the Treatise of Wood and Trees, and of their nature: Likewise in our late discourse of another sort of Mushroomes and Toad-stooles.

Chap. v.

Of Garden plants, their natures, kinds, and severall histories.

OF the cartilage and pulpous kind (such I meane onely, whereof there is nothing good but that which is above ground) I reckon the Cucumber: a fruit that *Tiberius* the Emperour much loved and affected: for he tooke such a wonderous delight and pleasure therein, that there was not a day went over his head, but he had them served up to his table. The beds and gardens wherein they grew were such as went upon frames to be removed every way with wheels: and as his Gardiners could in Summer time skill how to set them forward unto the Sunne; so again in Winter, during the cold and frostie daies, they could draw them backe into certaine high covert buildings exposed to the Sun, and there house them under rouse. Moreover, I find in some auncient Greeke writers, that their seed ought to lie two daies in steep, or infused in honied milk, before they be prickt or set into the ground: for by that meanes the Cucumbers will be the sweeter and more pleasant. The nature of them is to grow in what forme & fashion soever that a man would have them. Throughout all Italie, greene they be of colour, and least of any others: in the out-provinces they be as faire and great, and those either of a yellow colour, like wax and citrons, or else blacke. In Affrick or Barbarie men take delight to have the greatest plentie of them; whereas in Mœsia they lay for to have them passing big and huge. Now when they exceed in greatnes, they be called Pepones, *i.* Melons or Pompons. Let a man eat them alone, they will lie raw and greene in the stomacke a whole day, and never be digested: howbeit, with meats they are not unholesome: and yet for the most part swim they will aloft, and ride upon a mans stomacke. A wonderfull thing in their nature: they cannot abide oile in any wise, but water they love well; insomuch, as if they be cut off, or fallen from the place where they grew, they wind and creepe therinto, if it bee but a little way off: contrariwise, flie they will as fast from oile, if a man set it by them; and in case any thing bee in their way to let them, or that they hang still upon their plant, a man shall perceive how they will turne up and crooke, to shun and avoid it. This amitie to the one, and enmitie to the other, may be seene even in one nights space: for if a man set under them, foure fingers off where they grow, a vessell with water overnight, he shall see by the morning that they will come down unto it: contrariwise, let oile stand the like distance from them, shrinke they will from it, and hooke upward. Marke another experiment in the Cucumber. If when it hath done flouring, you enter the knot of the fruit into a long lane or trunke, it will grow to a woonderfull length. But behold a very strange and new fashion of them in Campane, for there you shall have abundance of them come up in forme of a Quince. And as I heare say, one of them chaunced so to grow first at a very venture: but afterwards from the seed of it came a whole race and progenie of the like, which thereupon they call Melopepones, as a man would say, the Quince-Pompions or Cucumbers. These never hang on high, but go low by the ground, and gather round in forme of a globe. A strange case it is of this kind: for, over and besides their shape, their colour, and savour different from the rest; they are no sooner ripe, but presently they fall from the stele or taile whereto they grew, notwithstanding they hang not hollow from the ground, where their owne poise might weigh them downe. *Columella* telleth of a pretie devise that hee hath of his owne, how to keepe of them fresh all the yeare long. Chuse (quoth he) the biggest bramble that you can meet withall among a thousand, translate it into a warme sun-shine banke, and there replant it: then cut it off, leaving not above two fingers breadth from the root above the ground [but this must be done about the Spring Æquinox in mid-March:] then take a Cucumber seed, and set it within the soft pith of the said bramble, bank it well round about with fine fresh mould & dung blended together: This is the way, he assureth us, to make that the roots therof bearing such Cucumbers or Melons, will abide the greatest cold in Winter, and never shrink at it. Of Cucumbers, the Greeks have set down three kinds, to wit, the Laconick, the Scytalick and the Bœoticke. Of which, as they say, the first sort only they be that love waters so well. Some there be who prescribe to take the seed either of Cucumber or Melon, & to temper the same in the juice of a certain hearb stamped, which they call *Culix, and then to sow it, perswading us that we shall have fruit thereof without any seed.

Of the like nature (I meane for their manner of growing) be the Gourds. Winter and all cold weather they cannot endure: they love also places well watered & dunged. As wel Gourds, as the Cucumbers or Melons above said, are commonly sowed between the Æquinox in March, & the Sunstead in Iune; provided alwaies, that their seed lie in a trench within the ground, a foot and a halfe

*Some take it for *Coniza*, *i.* Fleabane Mullet.

A halfe deep. But invery deed, the beſt & meeteſt time to ſow them, is about the feaſt Parilia, howſoever there be ſome that would have the ſeed of Gourds to be put into the ground preſently after the Calends or firſt day of March: but of Cucumbers about the Nones, *i.* the ſeventh day therof; or, at fartheſt, by the feaſt or holydaies of *Minerva*, named Quinquatrus. They love both alike for to creepe & crawle with their winding top-branches or tendrels, and gladly they would be clambering upon walls, and climbing up to the houſe-roofe, if they can meet with any rough places to take hold by: for naturally they are given to mount on high. Howbeit, their ſtrength is not anſwerable to their will and deſire: for ſtand they cannot alone without the helpe of ſome props, forkes, or railes, to ſtay them upright. Exceeding forward and ſwift they be in growth. They runne on end when they are ſet on it: and if they may bee borne up and ſuſteined in manner aforeſaid,
B they will gently overſhade galleries, walking places, arbours, frames, and allies under them in a garden, and that right quickly. In regard of which nature and behavior of theirs, two principall kinds there be of them, the one Camerarium, as one would ſay, The Frame or Traile-Gourd, and Cucumber, which climbeth aloft: the other, Plebeium, *i.* the Vulgar and Common, which creepeth along the ground beneath. In the former kind it is worth the noting, to ſee how the fruit (heavie as it is) hangeth ſtiffe poiſed as it were in the wind, and will not ſtir, notwithſtanding the ſtele whereunto it groweth bee wonderous fine and ſmall. Moreover, Gourds alſo may be faſhioned in the head every way as a man will, like as the Cucumbers or Melons beforenamed: and ſpecially within wicker caſes made of pliable oiſiers, into which they are put for to grow and to take their forme, ſo ſoon as they have caſt their bloſſome. The nature of them (I ſay) is to receive
C what figure a man will force and put them to: but commonly ſhaped they are in their growth, like to a ſerpent, winding and turning every way. There have beene knowne of them (ſuch I meane as were of the Traile-kind) being led upon a frame from the ground, were permitted to run at libertie, which grew to an incredible length: for one of them hath beene ſeene nine foot long. As for Cucumbers, they bloume not all at once, but by peece-meale, floure after floure, now one and then another: yea, and floure upon floure, one upon the head of another. Howſoever the Cucumber loveth wateriſh grounds, yet can hee abide drier places alſo. Covered all over this plant and fruit is, with a white downe, even at the firſt: but eſpecially all the while he is in his growth.

Gourds are emploied ſundrie waies, and to many more uſes than Cucumbers. For, firſt their young and tender ſtalkes be very good meat, and being dreſſed, are ſerved up as a diſh to the ta-
D ble: but the rind is of a cleane contrarie nature. Gourds of late time came to bee uſed in ſtouves and baines for pots and pitchers: but long before that they ſtood in ſteed of rundlets or ſmall barrels to keepe wine in. The greene of this kind hath a tender rind, which muſt bee ſcraped notwithſtanding, before a diſh of meat can be made thereof. And certes, albeit Gourds be of digeſtion hard, and ſuch as will not throughly be concocted in a mans ſtomack, yet they are taken to be a light, mild, and wholeſome meat, as they be handled and dreſſed diverſe waies: for that they make not a mans bellie to ſwell, as ſome meats doe. Of thoſe ſeeds which bee found within the gourd next to the necke thereof, if they be ſet, come the long gourds commonly: & ſuch lightly you ſhall have engendred of thoſe alſo that are in the bottome: howbeit, nothing comparable to the other. Thoſe that lie in the middeſt bring forth round ones: but from the ſeeds that are ta-
E ken out of the ſides, ordinarily there grow the ſhorter ſort of gourds, ſuch as be thicke & broad. Theſe graines or ſeeds would be handled in this manner. Firſt they are dried in the ſhaddow: and afterwards when a man liſt to ſow them, they ought to bee ſteeped in water. The longer and ſlenderer that a Gourd is, the better meat it yeeldeth and more pleaſant to be eaten: and therefore it is, that they be thought more wholeſome, which grew hanging upon Treiles; ſuch indeed have leaſt ſtore of ſeed within them. Howbeit, wax they once hard, away with them out of the kitchin, for then they have loſt all their grace and goodneſſe which commended them to the cookes dreſſer. Such as are to be kept for ſeed, the manner is not to cut up before Winter: and then are they to hang or ſtand a drying in the ſmoake, as proper ſtuffe and implements to bee ſeene in a countrie houſe, to keep (as good chaffer) ſeeds for the gardener againſt the time. Moreover, there
F is a meanes deviſed, how to preſerve them and Cucumbers too, for meat, ſound and good almoſt till new come; & that is, by laying both the one and the other in a kind of brine or pickle. Some ſay alſo, that they may be kept freſh and greene, enterred in a cave or ditch under the ground in ſome darke and ſhadie place, with a good courſe or bed of ſand laid under them, and well covered afterwards with drie hey, and earth upon the ſame in the end. Over & beſides, as in all plants

and hearbs in manner of the Garden, there bee both wild and tame: so is there of Gourds and Cucumbers both, a certain * savage kind. Such are not for the kitchin, but for the Apothecaries shop, and good onely in Physicke: and therefore I will put off for this present, the discourse of them and their nature, reserving them for their severall treatises in other books concerning such medicinable simples. G

* Cucumis sylvestris. * Colocynthis, or, Coloquintida.

As touching the rest of Garden-plants, which are of the like cartilage and pulpous substance, they be all the sort of them, roots growing hidden within the ground: among which, I might seeme to have written alreadie fully and sufficiently of Rapes and Turneps, but that the Physicians have observed in them both sexes, to wit, masculine & fœminine: for the rounder kind they will have to be the male; but the broader and flatter sort, which also are somewhat hollow, they account the female: and these last, they hold to be the better far and more pleasant, as being easier to be kept and condite: which also, if they be often remooved and replanted, will turn to be males. Physicians likewise have set downe five kinds of Navews, namely, the Corinthian, the Cleonæan, the Liothasian, the Bœotian, and that which simply by it selfe they called the greene Navew. Of all these, the Corinthian Navews grow to a great bignesse, and in manner all the root is seene naked above ground: for this is the only kind that coveteth to be aloft, and groweth not downward into the earth as the rest doe. As for the Liothasian (some call it also the Thracian) of all others it will abide and endure frost and cold weather best. Next to it, is the Bœotian Navew, sweet in tast, differing from the rest in the notable shortnesse and roundnesse withall that the root carrieth; nothing at all like to the Cleonæan, which is passing long. Generally, this is observed as a rule, That all Navews, the slenderer, smaller, and smoother leaves that they beare, the more pleasant is their root to the tast: and contrariwise, the rougher that they be, the more cornered also and prickie, the bitterer they are. There is a wild kind of them besides, the leaves whereof resemble Rocket. The best Navews that are sold at Rome, be those that come from Amiternum in Bruzze. The next to them in goodnesse, are those of Nursium. In the third place are they to be raunged, which our countrey * about Verona yeeldeth. As concerning all things els, and namely the manner of sowing them, I have said enough in the treatise of Rapes or Turneps. H I

* Or rather Italie.

As for Radishes, their roots do consist of a rind without, and a cartilage or pulpous substance within: and verely many of them are knowne to have a thicker skin or rind than the barke is of some trees: bitter such are, more or lesse, according to the thicknesse of the said rind: otherwhiles also, the rest is all pith, and as hard as wood. All Radishes breed wind wonderfull much, and provoke a man that eateth them, to belch. A base and homely meat therefore it is, and not for a gentlemans table, especially if it bee eaten with other woorts, as Beets: mary if a man take them with unripe olives condite, he shall neither belch or rift wind so much, ne yet so sower and stinking will his breath be afterwards. The Ægyptians make marveilous great account of Radishes, for the plentie of oyle that they draw out of the seed: and therefore a great desire they have to sow them if they may: for as they find it more gainfull than corn, so they pay lesse tribute and custome, in regard of that commoditie; and yet there is nothing yeeldeth more abundance of oile. * The Greekes have made three sorts of Radishes, differing all in leafe. The first, crisped and curled like a ruffe; the second, smooth and plaine; the third, wild and savadge: and these wild ones verily have smooth leaves, but short and round: plentifull also they be, and otherwise full of branches: a rough and harsh tast they have; howbeit medicinable they be, and as good as a purgation to loosen the belly & make it laxative. As for the other two former kinds, a difference there is in the seed: for in some, it is very faire and good; in others, as small and bad: howbeit these imperfections light upon none but such as have the crisped and frizled leaves. * Our countreymen here in Italy have made other kinds thereof; to wit, Algiclense, so called of the place: long they be, transparent and cleare, that a man may see through them. A second sort there be fashioned in manner of Rape roots, and those they call Syriaca, the sweetest for the most part of all others, and renderest; such also as will hold out best against frost & winter weather. Yet the principall and very best in deed are those, which as it should seeme were but lately brought out of Syria (at leastwise the seed of them) for that in no writers there is found any mention made of them: and they will continue all winter long. Over and besides all these, there is one savage kind of them more, which the Greekes name Agrion: the inhabitants of Pontus, Armon; others Leuce; and our countreymen give it the name of Armoracia: more shew it maketh in leafe than in the root or all the bodie besides. Moreover, the best token to know good Radishes by, is their K L M

* Theophrastus writeth all this of Brassica, i. Colewoort. See how Pliny is overseene: but that is no newes with him.

* Here hee seemeth to come againe to the Radish indeed.

stem

A ſtem or ſtalke: for ſuch as bite at the tongues end, have rounder and longer ſtems than the other that be mild: they have long and hollow gutters alſo: the leaves beſides, are more bitter and unſavorie, cornered, more rough, and untoward to be handled. Radiſh ſeed would willingly be ſowne in a looſe or light ground, and natheleſſe moiſt enough: it cannot abide ranke mucke, but contenteth it ſelfe with rotten chaffe or pugs, and ſuch like plaine mullock. It liketh and thriveth ſo well in cold countries, that in Germanie a man ſhall have their roots as big as prettie babes. To have Radiſh roots in the ſpring, the ſeed would be ſowed preſently after the Ides or 13 day of Februarie: and a ſecond time againe about the feaſt of * *Vulcan*, which is in deed the better ſeaſon for Seednes. Mary there be that put the ſeeds into the ground in March, Aprill, & September. When they are come up and begin to grow to ſome bigneſſe, it is very good to interre
B and cover with mould round about the leaves, now one, and then another; but in any caſe to banke the roots well with earth: for looke how much appeareth bare above ground, prooves either to be hard, or els fungous and hollow like a Kex, and nothing good to be eaten. *Ariſtomachus* would have them to be ſtript from their leaves in winter, and in any hand to be banked well about, that the water ſtand not there in any hollow furrow or hole lower than the other ground; promiſing us by this meanes, that they will proove faire and big againſt Summer. Some have reported, that if a man make a hole in the ground with as big a ſtake as hee will, and ſtrew or lay it in the bottom with a bed of chaffe ſix fingers deepe, and on it beſtow his ſeed, with muck and mould heaped thereupon, the roots will grow ſo big as to fill up the ſaid hole full. Howbeit, in briefe, Radiſhes are beſt nouriſhed and maintained in ſalt grounds: and therefore with ſuch kind
C of brackiſh waters they uſe to be watered: which is the reaſon, that in Ægypt ther are the ſweeteſt and daintieſt Radiſhes in the world, for that they are bedewed and ſprinkled with Nitre. And verily it is thought, that they will looſe all their bitterneſſe whatſoever, if they be corned or ſeaſoned with ſalt, yea and become as if they were ſodden and condite: for be they boiled once, they prove ſweet and ſerve to be eaten in ſtead of Navews. And yet Phyſicians give counſell and preſcribe, That they ſhould be eaten raw in a morning with ſalt, when a man is faſting, for to gather into the ſtomacke the ſharpe humors and excrements which charge the belly and entrails: and thus taken, they are of opinion, That it is a good preparative to vomit, and to open the paſſages well for to void thoſe ſuperfluities. They give out alſo, That the juice of Radiſh roots is ſingular good and neceſſarie for the midriffe, and the precordiall parts about the heart; and namely, that no-
D thing els but it, was able to cure a Phthiſicke or ulcer of the lungs, which had ſetled deepe and taken to the heart: The experiment and proofe whereof was found and ſeen in Ægypt, by occaſion that the KK. there, cauſed dead bodies to be cut up, and anatomies to be made, for to ſearch out the maladies whereof men died. It is reported, that the Greekes (as they be otherwiſe vaine in all their actions) ſo highly preferred the Radiſhes before other meats, in regard of their good nouriſhment, that whereas in an oblation out of the Garden-fruits to be offered unto *Apollo* in his temple at Delphos, they dedicated the Beet in ſilver, and the Rape or Turnep in lead, they preſented a Radiſh in beaten gold. A man may know hereby, that *Manius Curius* the great Generall of the Romane armie, was not that countreyman borne; whome the Samnite Embaſſadours (when they brought unto him a great preſent of gold [upon condition to ſurceaſe armes]
E which he meant to refuſe and not accept at their hands) found roſting of a Rape or Turnep root at the chimney fire; according as we find in the Annals and Chronicles of the Roman hiſtorie. To come againe to our Radiſhes, *Moſchion* the Greeke writer ſo highly eſteemed this root, that he compiled one whole booke of the Radiſh, and nothing els. Indeed Radiſhes are thought excellent good with meats in winter time: howbeit they alwaies weare and marre their teeth who eat of them: and yet I aſſure you they will poliſh Ivorie, which is nothing els but the Elephants tooth. * Betweene a Vine and Radiſh, there is by nature a ſecret enmitie and exceeding great hatred, inſomuch as if Radiſhes be ſowed neare unto her, ſhe will wryth and turne away ſenſibly from them.

Touching other ſorts of cartilage or pulpous plants in the garden, wherof I have before ſpo-
F ken, they be all given to run much to pith, and to be of a more woodie ſubſtance. A man would marveile therefore that they ſhould all taſt ſo ſtrong and ſharpe as they doe. Of which there is one kind of wild Parſnep growing of it ſelfe, which in Greeke is * called Staphylinas. A ſecond ſort is ſet of a plant with the root and ſowed of ſeed, either in the prime of Spring, or els in Autumne: howſoever *Hyginus* would have them to bee put into the ground in Februarie, Auguſt,

* 11 Cal. Iun. or as ſome thinke, 13 Cal. Iun. *i.* the 20 or 22. day of May. This feaſt was named alſo *Lufiria*.

* Here *Plinie* forgetteth himſelf again: for this is verified of the Colewort, and not of the Radiſh.

* Some call theſe Madnips.

September, and October; and that the plot where they are to grow, ſhould bee digged and delved very deepe. This root beginneth to bee good at the firſt yeeres end, but better it is if it be two yeers old: howbeit both the one & the other, is counted holſomer in Autumne than at any other ſeaſon of the yeare, eſpecially boiled and ſerved up betweene two platters: and yet dreſſe them ſo as well as you can, they will not be rid of that ſtrong, ranke, and churliſh ſmacke which it hath. As for *Hibiſcum, it differeth from the Parſnip aforeſaid onely in this, That it is more ſlender and ſmaller: rejected altogither from the table, and condemned for no good meat; howbeit medicinable, and uſed much by the Phyſician. A fourth kind there is beſides, reſembling alſo the Parſnip, which our countreymen the Latins name the French Parſnip, but the Greekes Daucus, [*i.* the yellow Douke or Carot] which they have ſubdivided into foure ſpeciall ſorts. The * Skirwirt root or white Parſnip, (which indeed would bee written among other Phyſicke plants) was likewiſe in great name and credit by the meane of the foreſaid Emperour *Tyberius*, who was very earneſt to have them yearely brought out of Germanie, and ever he would call for them at his own table. And indeed about Gelduba (a caſtle ſituate upon the river Rhene in Germanie) there was an excellent kind of them that grew to be paſſing faire, from whence hee was ſerved: whereby it appeareth, that this plant loveth cold regions well. Theſe roots have a ſtring in manner of a pith or ſinew, running all the length thereof, which the cooke uſeth to take forth after they bee ſodden; yet for all that there remaineth ſtill in them a great deale of bitterneſſe: howbeit being well tempered and delaied with a ſauce of mead or honyed wine, and ſo eaten with it, even the ſame bitterneſſe turneth to a good and pleaſant taſt. The greater Parſnip Paſtinaca, hath the like nerve or ſtring aforeſaid (ſuch only I meane as are a yeare old.) The right ſeaſon to ſow the Skirwirt or Parſnip Siſer, is in theſe moneths, to wit, Februarie, March, Aprill, Auguſt, September, and October.

* Some take it for *Althæa*, or the mariſh Mallow.

* *Siſer.*

The *Elecampane hath a root ſhorter than the Skirwirts or Parſnips aforeſaid, but more muſculous and fuller as it were of brawne; bitterer alſo: in which regards, if it be taken ſimply alone, it is adverſe and contrarie to the ſtomacke; but joyned and confected with ſome ſweet things among, it is very holeſome. And many deviſes have ben practiſed with it to take away that harſh and untoward bitterneſſe which it hath, whereby it is become toothſome and pleaſant enough: for ſome there be, who ſtampe it drie and ſo reduce it into a pouder: then they mix it with ſome ſweet liquid ſyrrup, and being thus tempered, ſerve it up. Others ſeeth it in water and vinegre mingled togither, and ſo keep it condite. Infuſed alſo it is many waies, and then afterwards either preſerved in cuit, or incorporat with honey in manner of a conſerve, or els with dried Raiſons of the Sun, or laſt of all with faire and fat Dates. Moreover, divers there be, who after another ſort make a confection thereof; namely with Quinces, with Sorviſes, or Plums, mixing therwith one while Pepper, another while Thyme. And I aſſure you this root thus confected (as is beforeſaid) is ſingular good for faintings; and eſpecially quickneth the dulneſſe and defect of the ſtomacke. The Empreſſe *Iulia Auguſta* paſſed not a day without eating the Elecampane root thus confected and condite: and thereupon came it to be in ſo great name and bruit as it is. The ſeed therof is needleſſe and good for nothing: therefore to maintaine and encreaſe this plant, gardeners uſe commonly to ſet the joynts cut from the root, after the order as they doe Reeds and Canes. The manner is to plant them as well as Parſnips, Skirwirts, and Carots, at both times of Seednes, to wit, the Spring and the Fall: but there would be a good diſtance betweene every ſeed or plant, at leaſt three foot, becauſe they ſpread and braunch very much, and therewith take up a deale of ground. As for the Skirwirt or Parſnip Siſer, it will doe the better if it be remooved and replanted.

* *Inula.*

* *Cariotis*, ſome read *Caricis*, *i.* Figs.

It remaineth now to ſpeake in the next place of plants, with bulbous or onion roots and their nature, which *Cato* recommendeth to Gardeners, and hee would have them to be ſet and ſowed above all others: among which, he moſt eſteemeth them of Megara. Howbeit, of all this bulbous kind, the Sea-onyon Squilla is reputed chiefe and principall, notwithſtanding there is no uſe of it but in Phyſicke, and for to quicken vinegre. As there is none that groweth with a bigger head at the root, ſo there is not any more ægre and biting than it. Of theſe Sea-onyons, there be two kinds medicinable; the male, with the white leafe; the female, with the blacke. There is a third ſort alſo of Squillæ, which is good for to be eaten: the leaves whereof be narrower, and not ſo rough and ſharp as the other, and this they call Epimenidium. All the ſort of theſe Squilles are plentifull in ſeed: howbeit they come up ſooner if they be ſet of cloves or bulbes which

grow

A grow about their ſides. And if a man would have the head of the root wax big, the leaves which uſually be broad and large, ought to be bended downe into the earth round about, and ſo covered with mould; for by this means all the ſap and nouriſhment is diverted from the leafe and runneth backe into the root. Theſe Squilles or Sea-onions grow in exceeding great abundance within the Baleare Iſlands and Ebuſus, as alſo throughout all Spaine. *Pythagoras* the Philoſopher wrote one entire volume of theſe Onions, wherein hee collected their medicinable vertues and properties, which I meane to deliver in the next booke.

As touching other bulbous plants, there bee ſundrie kinds of them, differing all in colour, quantitie, and ſweetneſſe of taſt: for ſome there bee of them good to bee eaten raw, as thoſe of Cherrhoneſus Taurica. Next unto them, are they of Barbarie, and moſt commended for goodB neſſe; & then thoſe that grow in Apulia. The Greeks have ſet downe their diſtinct kinds in theſe tearms, Bulbine, Setanios, Pythios, Acrocorios, * Ægilops, and Siſyrinchios. But ſtraunge it is of this Siſyrinchios laſt named, how the foot and bottom of the root will grow downe ſtill in winter; but in the Spring when the Violets appeare, the ſame diminiſheth and gathereth ſhort upward: by which meanes the head indeed of the root feedeth and thriveth the better. In this ranke of bulbous plants, is to be ſet that, which in Ægypt they call Aron, [*i.* Wake-Robin:] for bigneſſe of the head it commeth next to Squilla beforeſaid: the leaves reſemble the hearb Patience or garden Docke: it riſeth up with a ſtreight ſtem or ſtalke two cubits high, as thicke as a good round cudgell. As touching the root, it is of a ſoft and tender ſubſtance, and may be eaten raw. If you would have good of theſe bulbous roots, you had need to dig them out of the ground C before the Spring; for if you paſſe that time, they will preſently bee the worſe. You ſhall know when they be ripe and in their perfection, by the leaves; for they will begin to wither at the bottom. If they be elder, or if their roots grow ſmall and long, they are rejected as nothing worth. Contrariwiſe, the ruddie root, the rounder, and the biggeſt withall, are moſt commended. Know this moreover, That the bitterneſſe of the root in moſt of them, lyeth in the crowne (as it were) or top of the head; for the middle parts be ſweet. The auncient writers held opinion, That none of theſe bulbous plants would grow, but of ſeed onely: howbeit both in the paſtures and fields about Preneſte, they come up of themſelves: and alſo among the corne lands & arable grounds of the Rhenians, they grow beyond all meaſure.

* rather, *Hemerocalles.*

D

Chap. VI.

Of the roots, leaves, floures, and colours of Garden-hearbs.

All Garden plants ordinarily, put out but one ſingle root apeece; as for example, the Radiſh, Beet, Parſley, and Mallow: howbeit the greateſt and largeſt of all others is the root of the hearb Patience or garden Docke, which is knowne to run downe into the ground three cubits deepe. In the wild of this kind (which is the common Docke) the roots be ſmaller, yet plumpe and ſwelled; whereby, after they be digged up and laid above ground, they will live a long time. Some there be of them, that have hairie ſtrings or beards hanging to their roots, as namely Parſley or Ach, and Mallowes. Others there be againe, which have braunching roots, E as the Baſill. As the roots of ſome bee carnous and fleſhie altogither, and namely of the Beet, but eſpecially of Saffron; ſo in others they conſiſt of rind and carnoſitie both, as we may ſee in Radiſhes and Rapes or Turneps. And ye ſhall have of them that be knottie and full of joynts, as for example, the root of the Quoich graſſe or Dent-de-chien. Such hearbs as have no ſtreight and direct root, run immediatly into hairie threads, as we may ſee plainly in the Orach & Bleet. As for the ſea Onion Squilla, and ſuch bulbous plants, the garden Onions alſo and Garlicke, they put forth their roots ſtreight, and never otherwiſe. Many hearbs there be, which ſpring of their owne accord without ſetting or ſowing, and of ſuch many there be that braunch more and clove in root than in leafe, like as wee may ſee in Aſpalax, *Parietarie of the wall, and Saffron. * *Perdicium.*
Moreover, a man ſhall ſee theſe hearbs floure at once togither with the Aſh, namely, the running F or creeping Thyme, Southernwood, Naphews, Radiſhes, Mints, and Rue; and by that time as others begin to blow, they are readie to ſhed their floures: whereas Baſill putteth forth flours by parcels one after another, beginning firſt beneath and ſo going upward by leiſure: which is the cauſe that of all others it is longeſt in the floure. The ſame is to be ſeene in the hearb Heliotropium, [*i.* Ruds or Turnſol.] In ſome the floures be white, in others yellow, and in others purple.

As

As touching the leaves of hearbs, some are apt to fall from their heads or tops, as in Origan and Elecampane, yea, and otherwhiles in Rue, if some injurie bee done unto it. Of all other hearbs, the blades of Onions and *Chibbols be most hollow. Where by the way I cannot overpasse the foolish superstition of the Ægyptians who use to sweare by Garlicke and Onions, calling them to witnesse in taking their othes, as if they were no lesse than some gods. Of Onions, the Greekes have devised sundrie kinds, to wit, the Sardian, Samothracian, Alsiden, Setanian, Schista, [*i.* the cloven Onion] and Ascalonia [*i.* the little Onions or Scalions] taking that name of Ascalon, a citie in Iurie. They have all of them this propertie besides, to make a mans eies water, and to fetch out teares, if one smell to them, especially they of Cypros: but the Gnidian Onions least of all others, cause one to weepe. In all kinds of them the bodie of the root consisteth of a certain fattie pulpe or cartilage. For quantitie the Setanian be least, except the Tusculane: howbeit, such are sweet. The cloven Onions and the Scalions aforesaid, are proper for to make sauce of. As touching that kind of them called Schista, Gardiners leave them all winter in the ground with their leaves or head standing: in the Spring they pluck off the said leaves, and then shall you see spring forth others underneath, according to the same clifts and divisions, whereupon they tooke the name Schista. After which example, the like practise in all other kinds is prescribed, namely, to pull their leaves off, that they should grow rather big in root, than run up to seed. The Ascalonian Onions have a proper nature and qualitie by themselves: for they bee barren (as it were) from the root, and therefore the Greeks would have them to be sowed of seed, and not otherwise to bee set of heads. Besides, that they should bee transplated and replanted againe late, about the Spring, at what time as they put forth blade: for by this usage (say they) you shall have them burnish and grow thicke, yea, and then make haste, for amends of the former time foreslipt. These must be gathered betimes: for after they be once ripe, quickly will they rot in the ground, if you make not the better haste to plucke them up. If you set or plant their heads, a stalke they will put forth and feed upon it, but the Onion it selfe will consume and come to nothing. Moreover, there is a difference observed in the colour of Onions: for they that grow in Samos and Sardis, bee most white. Those also of Candie be much esteemed: & some there be, who make doubt whether they bee the same that the Ascalonian, or no? for that if they bee sowed of seed, their heads or roots will grow big: set them, they will be all stem and seed, and no head at all. As for the rellish or taste that Onions have, there is no great diversitie, but that some are sweeter than other. Our Onions here in Italie bee all of two sorts principally: the one which serve for sauce to season our meats, which the Greekes call Gethyon Chibbols; but our countreymen the Latines, Pallacana; these are sowne commonly in March, Aprill, and May: the other is the great headed Onion; and these be put into the ground, either after the Æquinox in Autumne, or else after mid Februarie, when the West wind Favonius is aloft. Moreover, Onions are devided into sundrie sorts, according to the degrees of their pleasant or unpleasant and harsh taste; to wit, the Affricane, French Tusculane, and Amiternium. But evermore the best are the roundest. *Item*, The red Onion is more keene and angrie than the white: the drie, and that which hath lien, is more eager & sharp than the greene, newly drawne: the raw also more than the sodden: and finally, the drie by it selfe more than that which is condite and preserved in some liquor for sauce. The Amiternium Onion is planted in cold and moist grounds: and this alone would bee set of a head in manner of Garlick cloves, whereas the rest will come of seed. Onions, the next Summer following after they be sowne, put forth no seed but head only, which groweth, and the leafe or stem drieth and dieth. But the next yeare after by way of interchange, it bringeth forth seed, and then the head rotteth. And therfore every yeare they use to sow Onion-seed apart in one bed by it selfe, for to have Onions: & set Onions for seed in other, by themselves. The best way to keep Onions, is in corn, chaffe, and such like pugs. As for the Chibboll, it hath in manner no distinct head at all, but only a long necke, and therefore it runs in manner all to a greene blade: the order is to cut and sheare it often in manner of porret or leekes; which is the cause that they sow it also of seed, and do not set it. Over and besides, before we sow Onion seed, the plot, by mens saying, ought to have three diggings; for to kill and rid out of the ground the roots of hurtfull weeds: and ten pound of seed ordinarily will sow an acre. Here and there among, there would be Savorey sowne, for the better will the Onions like and prosper with the companie of that hearbe. Also, after the ground is sowne, it requireth weeding, sarcling or raking foure times at least, if not oftener. Our neighbours in Italie sow the Ascalonian Onion in the month of Februarie: whose manner is also to gather Onion

seed

*Gethyum.

G H I K L M

A ſeed when it beginneth once to waxe blacke, before it fall to wither.

Seeing now that I am entred thus far into a diſcourſe of Onions, I ſhall not do amiſſe to treat of Leekes alſo, in regard of the neare affinitie betweene them: and the rather, for that it is not long ſince, that the Porret kind which is often kept downe with clipping and cutting, came into great name and credite, by occaſion of the Emperour *Nero*; who uſed for certaine daies in every moneth for to ſcoure his throat, and cleare his voice, and to take it with oile; on which daies hee did eat nothing elſe, not ſo much as bread. Wee uſe to ſow them of ſeed, after the Æquinox in September: and if we meane to make cut Leekes thereof, the ſeed would be ſowed the thicker. Theſe Leekes are kept downe with clipping and ſhearing ſtill untill the root faile, without removing them out of the ſame bed where they were ſown: and alwaies they muſt be plied with dung.

B But before they be cut, nouriſhed they ought to be, untill they have gotten a good head. When they are well grown, they are to be tranſlated into another bed or quarter, & there replanted: having their uppermoſt leaves lightly ſhrigged off, without comming to the heart or marow, which is their bodie next to the roots: and their heads ſet deeper downeward: yea, and their utmoſt pellicles and skins ſlived from them. In old time they uſed to put under their root a broad flint ſtone, or elſe a tile, which did dilate their heads within the ground, and make them ſpread the better. This they practiſed alſo in other bulbous plants, as Onions, &c. thereby to have the fairer heads. But now in theſe daies the maner is, lightly to barbe & pluck off with a ſarcling hooke, the beards or ſtrings of the root; that being thus nipped and lipped (as it were) they might nouriſh the bodie of the plant, and not diſtract and ſucke away the humor, which is the nutriment of the whole.

C This is notable and wonderfull in the Porret, that joying and liking as it dooth in mucke and fat ground, yet it cannot abide waterie places. Howbeit, in theſe we muſt be ruled by the propertie of the ground, which is all in all. The principall Leekes be in Ægypt: the next are thoſe of Ortia and Aricia. Of the cut Porret or unſet Leekes be two kinds. The one runneth mightily into a greene blade, and the leafe thereof hath very conſpicuous and evident cuts; and this is that the Apothecaries uſe ſo much: the other hath a more pleaſant and yellowiſh leafe, and the ſame rounder, the gaſhes or cuts whereof are ſmaller, and not ſo apparent to the eie. The voice goeth, and generally it is reported, That *Mela* a knight or gentleman of Rome by his place, and Procuratour under *Tiberius* the Emperour, being for ſome miſgovernement in that office, brought into queſtion and accuſed, and thereupon ſent for peremptorily to make his perſonall apparance, deſpai-

D ring utterly of life, tooke the weight of three Romane ſilver deniers in the juice of Leekes, and dranke it off: whereupon hee died incontinently without any paine or torment at all. It is commonly ſaid, That if a man take a greater doſe or receit thereof, it will doe no harme, nor any danger will enſue thereupon.

As touching Garlicke, it is held for certain, That it is a ſoveraigne medicine for many greefs and maladies; eſpecially ſuch as are incident to the countrey peaſants and ruſticall people, who hold it to be as good as a Treacle. The Garlicke head is covered and clad all over with certain very fine and thin pellicles or membranes, which may be parted and divided one from another; under which you ſhall ſee it compact and joined (as it were) together of many cloves in manner of kernils, and thoſe alſo encloſed each one apart within their ſeverall skins. Of a ſharpe and biting

E taſt it is. The more keene and eager alſo you ſhall find it, as it hath more of thoſe cloves aforeſaid in one head. The aire that commeth from it, is as offenſive as that of the Onion, and maketh their breath as ſtrong who eat it: howbeit, ſodden if it bee, it is every way harmeleſſe. The difference and diverſitie of Garlicke ariſeth firſt, from the circumſtance of the time; whereby you ſhall ſee a kind of haſtie-Garlicke, that in threeſcore daies will bee ripe and come to perfection: then, in quantitie: for ſome grow bigger in the head than other. And of this ſort is that which wee call in Latin Vlpicum: and the Greeks, ſome, the Cyprian Garlick; others, *Aphroſcorodon: ſo much commended in Affricke, that it is held for the moſt principall diſh of meat that a Husbandman of the countrey can eat: and bigger it is than our common Garlicke. Being bruſed and braied in a morter together with oile and vineger, it is wonderfull to ſee what a fome and froth will ariſe

F thereof, and to what an height it will ſwell thereby. Some Gardeners there are, who forbid to ſet either this Vlpicum, or the common Garlicke in any even, flat, and levell bed; but to put them in little hillockes [in manner of hop hils] raiſed in forme of caſtles or turrets, three foot diſtant one from another. Now, whereſoever theſe cloves bee ſet in hill or plaine, they ought to lie foure fingers breadth aſunder. And this would not bee forgotten, That ſo ſoone as they ſhew three leaves once,

*or, *Antiſcorodon.*

once, they would be ſarcled, and the mould raiſed from about them: for the oftener they be thus ſerved and laid bare, the fairer heads they will bring. When they begin to grow big and come to their full maturitie, the ſtalkes that they run up unto, muſt be troden downe and moulded over: and this is to prevent, that they ſhould not be over-ranke in blade. In cold countries it is thought better and more profitable to ſet them during the Spring, than at the fall of the leafe. Moreover, if you would have Garlicke, Onions, and ſuch like, not to ſmell ſtrong and ſtinke ſo as they do, the common opinion and rule is, that they ſhould not be ſet or ſowne, but when the Moone is under the earth, nor yet be gathered and taken up but in her conjunction with the Sunne, which is the chaunge. But *Menander*, a Greeke writer, ſaith, That there needs none of all theſe ceremonies for the matter: for if a man would not have his breath ſtinke with eating of Garlicke, let him do no more (quoth hee) but take a Beet root roſted in the embers, and eat it after, it ſhall extinguiſh that hote and ſtrong ſavour, and cauſe the breath to continue ſweet. There bee who thinke, that the fitteſt time of ſetting both the common Garlicke, and alſo the greater kind named Vlpicum, is betweene the two ſet and ordinarie feaſts *Compitalia and *Saturnalia. As for the vulgar Garlicke, it commeth up alſo of ſeed, but ſlowly, and late it will be firſt ere it attaine to the full proofe: for the firſt yeare it getteth a head no thicker than Leekes; the next yeare after, it beginneth to divide into cloves; and in the third it is conſummate and growne to perfection: and ſuch unſet Garlick, ſome are of opinion, to be fairer and better than the reſt. Howbeit, Garlick indeed ſhould not be ſuffered to boll and run up to ſeed, and therefore the blade thereof ought to be wreathed, that it may gather more and ſtronger in the head, and that the cloves afterwards might bee ſet in ſteed of ſeed, for increaſe. Now if a man have a deſire that both Garlicke and Onions may be kept long for his proviſion, their heads muſt be dipped and well plunged in ſalt water, warme: by this meanes indeed laſt they will longer without ſpurting, and be better for any uſe we ſhall put them to, ſave onely to be ſet and replanted into the ground; for barren will they be, and never proſper. And yet divers there are, who thinke it ſufficient at the firſt to hang them in the ſmoke over quick and burning coales: as being perſuaded, that this will ſerve well ynough to keepe them from growing: for certaine it is, that both Garlick and Onions will put forth blade above ground, and when they have ſo done, come to nought themſelves, as having ſpent all their ſubſtance and vertue. Some are of this mind, that the beſt preſerving of Garlicke as well as of Onions, is within chaffe.

*11 *Calend. Januar.*
*14 *Calend. Januar. i.* Betweene the 18 and 21 of December.

There is a kind of Garlicke growing wild in the fields of the owne accord, which they call in Latine Alum [*i.* Crow Garlicke,] which beeing boiled that it ſhould not grow, they commonly throw forth in corne fields for the ſhrewd and unhappie Foules which lie upon the lands, and eat up the ſeed new ſowne: for preſently as any of thoſe birds taſt thereof, they will be ſo drunken and aſtonied therewith, that a man may eaſily take them with his hand: yea, and if one ſtay a little, he ſhall ſee them fall aſleepe therewith. Finally, there is another kind of ſavage or wild Garlicke called Vrſinum, [*i.* Beere Garlick] the head wherof is very ſmall, the blade or leaves great and large, and the ſavor or ſent mild and gentle, in compariſon of the reſt.

Or rather *Anguinum.*

Chap. vii.

In how many daies every hearbe that is ſowed will come up and appeare above ground. The nature of ſeeds. The manner of ſowing any of them. Which they be, whereof there is but one ſingle kind: and which have many ſorts.

AMong all the hearbs ſowne in a garden, theſe come up ſooneſt, to wit, Baſill, Beets, Navews or Turneps, and Rocket: for by the third day the ſeed will breake and ſpurt. Dill ſeed will chit within foure daies, Lectuce in five, Radiſh in ſixe, Cucumbers and Gourds in a ſevennight, but the Cucumber firſt. Creſſes and Muſtard ſeed in five daies, Beets in ſix by Summer time, & by Winter in ten. Orach in eight daies, Onions in nineteen or twentie at the fartheſt, Chibols in ten or twelve at the moſt. Coriander ſeed is more ſtubborne, and will not ſhew ſo ſoone. Saverie and Origan ſeed lieth thirtie daies ere it come: but of all others Parſeley ſeed is lateſt ere it ſpring; for when it commeth up ſooneſt, it is fortie daies firſt: but for the moſt part it lieth fiftie daies before it appeare. Some thing there is alſo in the age of the ſeed: for the newer that the ſeed is either of Leeks, or Chibols, Cucumbers and Gourds, the more haſt it maketh to be above ground: contrariwiſe, Perſely, Beets, garden Creſſes, Saverie, Origan, and Coriander, grow ſooner

A ner of old ſeed. But the Beet ſeed hath a ſtrange and wonderfull qualitie above the reſt: for it will not come up all in one and the ſame yeare. But ſome in the firſt, others in the ſecond, and the reſt in the third. And therfore ſow as much ſeed as you will, yet ſhall you have it grow but indifferently. There be hearbes which will grow and beare but one yeare and no more: and there bee other againe which will continue many yeares together, as for example, Perſely, Porret, and Chibbols. For, ſow theſe but once in a garden, they will beare from yeare to yeare from the ſame root, or els ſow themſelves. The moſt part of hearbes do beare round ſeed, in ſome the ſeeds are long; in few, broad and flat in manner of a leafe, as in Orach. You ſhall have ſeed alſo narrow and chamfeted, like a gutter tile, as that of Cumin. Moreover, there is a difference in colour, for ſome ſeeds bee white, others blacke: in hardneſſe alſo and ſoftnes; for ſome be harder or ſofter than others. Some
B ſeeds at every branch of the plant, are contained within cods or bladders, as we may ſee in Raddiſh, Senvie, and Turneps or Rapes. The ſeeds of Perſely, Coriander, Dill, Fennell, and Cumin, grow naked & bare. But that of the Bleet, the Beet, Orach and Baſil, is enclоſed in a huske or hull. Lectuce ſeed lieth within a downe. As touching Baſill aforeſaid, nothing fructifieth more than it: and to the end that it may come up in more plentie and abundance, they ſay it ſhould be ſowed with maledictions and ill words; for the more that it is curſed, the better it will ſpeed and proſper; yea, and when it is ſowed, the mould of the bed muſt be patted and rammed downe in manner of a pavement. And more particularly, they that ſow Cumin, pray to God that it may never come up. Such ſeeds as lie within an huske, hardly come to be drie and ripe therin: but Baſil ſeed eſpecially, and Gith or Nigella Romana. But they muſt be all throughly dried before they be ſee-
C dow and fruitfull. This is generall in all hearbes throughout, that they will thrive and grow the better, if their ſeed be ſowed by heapes one upon another, than ſcattering. And certainely both Leekes ſeed is ſowne and Garlicke cloves ſet in that wiſe, namely, bound up and tied together in ſome clouts or rags wherein they be lapped. As for Perſely ſeed, againſt it ſhould be ſowne, there would bee an hole made with a little wooden dibbil or pin, and therein it muſt bee put with ſome dung after it. Furthermore, all garden hearbs come up either of ſeed and cloves ſet; or els of ſlips pulled from the mother-plant. Some grow of ſeed and ſprigs both, as Rue, Origan, and Baſill: for even this hearbe alſo laſt named will abide cutting when it is come to be one handbreadth, or a ſpan high; and thoſe cuttings will grow if they be planted. There bee that are maintained by root and ſeed both, as Onions, Garlicke, and thoſe which have bulbous roots: likewiſe, all ſuch as when
D they have borne yearely, leave a root behind them ſtill in ſtrength and vertue. Of ſuch as grow of roots replanted, their roots continue long and braunch much, as wee may ſee in the bulbes, in Chibbols and ſea-Onions. Others put out braunches ſufficient, but not from the head or root, as Perſeley and Beets. All hearbes for the moſt part, do ſpring and ſhute againe, if their ſtalke be cut off; unleſſe it be thoſe that have a ſmooth ſtem. And this is moſt ſeene in Baſill, Raddiſh, and Lectuce, the ſtems whereof are cut for many purpoſes. And as for Lectuce, men hold, That the latter Spring thereof, when the firſt is gone, is the ſweeter. Certainely, Raddiſhes eat the more pleaſantly, if their leaves bee cropt off before the maiſter ſtem or ſpire be growne big. And this alſo we obſerve in Rapes or Turneps: for if you ſtrip them alſo from their leaves and cover them over head with earth, yet will they grow all Winter and continue till Summer following. Touching
E Baſill, Sorrell, red Porret or Bleets, garden Creſſes, Rocket, Orach, Coriander, they are all of one ſort, & ſingular in their kind: for ſow them where you will, they be the ſame ſtill, neither are they better in one place than in another. It is a common received opinion, that Rue will grow the better if it bee filtched out of another mans garden: and it is as ordinarie a ſaying, that ſtollen Bees will thrive worſt. Some hearbs there be which come without ſowing or ſetting, as wild Mint, Nep, Endive, and Peniroyall. But howſoever there be but one ſingle kind of thoſe before rehearſed, yet on the contrarie ſide, there be many ſorts of others, whiche we have alreadie ſpoken of, and will write more hereafter, and principally of Ach or Perſeley.

Chap. VIII.

F *Of Garden hearbes which ſerve for to ſeaſon our meats: their divers natures, their ſundrie kinds and ſeverall hiſtories related, to the number of* 36.

FOr, that kind of Ach which groweth of it ſelfe in moiſt grounds with *one leafe, and is not rough, but ſmooth and plaine, is called in Greeke Heleoſelinon, *i.* Smallach. Againe, there is ano-

*μονόφυλλον. For ſo it ſhould ſeeme that *Plinie* read it in *Theophraſtus*: wheras indeed it is μανόφυλλον, *i.* with leaves growing thin.

another ſort, with more leaves, reſembling Smallach aforeſaid, but that it commeth up in drie places, and this the Greekes named Hippoſelinon, *i.* Aliſanders. A third there is beſides found in mountaines, named by them thereupon Oreoſelinum, *i.* Mountaine Ach, or Perſely of the hils: it beareth leaves like Hemlocke, and a little ſlender root: the ſeed reſembleth Dill ſeed very much, but only that it is ſmaller. And as for the garden Ach, commonly called Perſeley, there be many kinds therof, differing one from another: firſt in leafe, whereby you ſhall have ſome leafed thicke and full, and the ſame jagged and curled: others thinner, & thoſe alſo more plain, ſmooth and broad. *Item*, In ſtalke, which in ſome is more groſſe or thin than in other: in one kind white, in another purple, and in a third of ſundrie colours. G

Of Lectuce, the Greeks have ſet downe three kinds: whereof the firſt riſeth up with ſo large and broad a ſtalke, that by their report, little garden wickets were commonly made thereof, in partitions betweene quarter and quarter. And yet the leafe of this Lectuce is not much bigger than others that bee common and ſerve for pot-hearbs: the ſame alſo paſſing narrow, by reaſon that all the nutriment is otherwiſe ſpent in the maine ſtem. The ſecond hath a round ſtalke: the third is the broad flat Lectuce which ſetleth neare the ground, called Laconicon, or the Lectuce of Lacedæmon. But other writers have deſcribed the diſtinct kinds thereof by their colour, and the ſundrie ſeaſons wherein they be ſet: for (ſay they) there be blacke Lettuces, the ſeed whereof ought to be ſowed in Ianuarie: there be white alſo, and ſuch would be ſowed in March: & there are a third ſort which be red, and the fit time of their Seednes is the moneth of Aprill. And according to thoſe authors, all the ſort of them are to bee remooved in young plants, when they have growne two moneths. Howbeit, thoſe Herbariſts who have looked farther into the knowledge of Simples, add more kinds yet unto the other, to wit, the purple, the criſpe or curled, the Cappadocian, and the Greekiſh Lettuce. As for theſe of Greece, they are taller in ſtem than the reſt, and broader withall; beſides, their leaves be long and narrow, like to thoſe of Endive or Cichorie. The worſt kind of all is that, which the Greeks by way of reproofe and reproch for their bitterneſſe, tearme Picris. Yet is there another diſtinct kind of the blacke Lectuce, which for the plentie that it yeeldeth of a milkie white juice procuring drowſineſſe, is tearmed Meconis; although all of them are thought to cauſe ſleepe. In old time, our auncetors knew no other Lettuce in Italy but this alone, and thereupon it tooke the name in Latine of Lactuca. The purple Lectuce which hath the biggeſt root, they name Cæciliana: but the round kind with ſmalleſt root and broad leaves, is called * Aſtylis, [*i.* the chaſt Lectuce, or the civile Lectuce:] howbeit, ſome give it the name of Eunuchij, becauſe of all others it cooleth luſt moſt, and is an enemie to the ſports of *Venus*. And to ſay a truth, all Lectuces are by nature refrigerative, and doe coole the bodie; and therfore be they eaten ordinarily in Summer: for they pleaſe the ſtomack when it is enclined to loath meat, and procureth good appetite. Certes, reported it is of *Auguſtus Cæſar* late Emperour of famous memorie, that he eſcaped a daungerous diſeaſe, and was recovered by the means of Lectuce, whereunto he was directed by the diſcreet counſell of *Muſa* his Phyſician. And whereas in times paſt, folke preciſely forbare to eat Lectuce, now there is no doubt or ſcruple at all made therof; nay they are ſo far from abſtinence that way, that it is a meat generally received and commended: inſomuch as they have deviſed to keepe it in the ſyrrup of Oxymel, all winter long, for to have it readie and ever at hand: yea and more than ſo, men are verely perſuaded, that Lectuce will encreaſe good blood. Over and beſides all the ſorts of Lettuce before ſpecified, there is yet another kind named in Latine Caprina, as one would ſay, the Goats Lectuce, whereof I purpoſe to ſpeake more at large among other medicinable hearbs. As touching the wild Lectuce called Cilician, ſee how it is crept apace into the garden after it came once to be knowne, and is commended as exceeding good among other hearbs there ſown and planted: the leafe reſembleth the Cappadocian Lectuce, but that it is jagged & broader than it. As for Endives and Cichories, I cannot tell what to make of them: for neither can they be truly ſaid a kind of Lectuce, nor yet raunged well among other hearbs. More unpatient they are and fearfull of winter, than Lectuces, and withall carrie an unpleaſant ſtrong taſt: howbeit their ſtalks are no leſſe acceptable than they. Their young plants uſe to be ſet in the beginning of the Spring, but tranſlated afterwards and replanted in the latter end thereof. There is a certain wild and wandring Endive, which the Ægyptians call Cichorie, whereof I meane to diſcourſe more amply in another place. There hath been a deviſe lately come up to condite and preſerve as well the ſtems as the leaves of all Lectuces for the winter time, in pitchers and pots, within ſome appropriat H I K L M

* See *Cælius Rhodiginus* 27 booke and laſt chap. *antiqu. Lectionum*: and let him tell you, why women call this Lectuce, *Aſtylis*.

A propriat liquor; as alſo to dreſſe and ſeeth them young, freſh, and greene, in a kind of broth or browiſſe, and ſo ſerve them up between two platters. And yet where the ground is rich and good, well watered and holpen with dung, Lectuce may be ſowed at all times of the yeare: for within two months they will grow to be good big plants, and in as little ſpace come to their full maturitie and perfection. Howbeit, the true time and ordinarie ſeaſon, is to ſow their ſeeds about the mids of December, when the daies begin to lengthen, and then to remoove their plants at the comming of the Weſterne wind Favonius in Februarie: or els to ſow in that wind, and to replant in March about the Spring Æquinox. White Lectuce of all other, can beſt away with the winter. All Garden-hearbs love moiſture, and muck they love as well, Lectuce eſpecially; & yet I muſt needs ſay, that Endive more than it. Some gardiners there bee, that thinke it a great point
B of cunning to beſmeare the roots of Lectuce plants and other ſuch hearbs with dung, when they are ſet; or after they be bared at the root within the ground, to caſt in the mould againe and fill up the place ſo ſoone as they be greaſed (as it were) with mucke at the root. Others there be, who practiſe another feat with them, to make them cabbage the better and grow faire and big, by cutting them up cloſe to the ground when they are come once to be halfe a foot high, and then bedawbing them with greene ſwines dung. It is thought, that white Lectuce come onely of white ſeed; and yet that is not ſufficient, unleſſe there be ſome ſea ſand taken freſh from the ſhore and laid about the heart of the plant where the leaves put forth firſt, and ſo reared and heaped up to the mids; and then to take order that the leaves growing over them afterwards, be tied faſt unto them.

C Of all Garden-hearbs, Beets are the lighteſt. The Greeke writers make two kinds thereof, in regard of the colour; to wit, the blacke Beets, and the whiter, which they preferre before the other, although it be very ſcant and ſparie of ſeed: theſe alſo they call the Sicilian Beets, and for their beautifull white hew and nothing els, they eſteeme them above Lectuce. But our countreymen here in Italie put no other difference betweene Beets, but in reſpect of the two ſeaſons when they be ſowed, namely in the Spring, and Autumne; whereof we have theſe two ſorts, the Spring Beets, and the Autumnall; and yet they be uſually ſowne in Iune alſo. This hearb likewiſe is ordinarily remooved in the plant, and ſo replanted or ſet againe: it loveth beſides to have the roots medicined with mucke, as well as the other aboveſaid, yea and it is very well content with a moiſt and wateriſh ground. The roots as well as the leaves or herbage thereof, uſe to bee
D eaten with Lentils & Beans: but the beſt way to eat them, is with Senvie or muſtard, for to give a taſt & edge as it were to that dull and wallowiſh flatneſſe that it hath. Phyſicians have ſet down their judgement of this hearb, That the roots be more hurtfull than the leafe: and therefore being ſet upon the bourd before all perſons indifferently, as well the ſound as the ſicke and craſie, yet many a one maketh it nice and ſcrupulous once to taſt therof; and if they doe, it is but ſlightly for faſhion onely, leaving the heartie feeding thereupon to thoſe rather that be in health and of ſtrong conſtitutions. The Beet is of two divers natures and qualities: for * the herbage or leafe hath one, and the bulbs comming from the head of the ſtem, another: but their principall grace and beautie lieth in their ſpreading and breadth that they beare as they cabbage. And this they come unto (as the manner is of Lectuces alſo) by laying ſome light weight upon the
E leaves, when they begin once to gather into a ſtalke and ſhew their colour. And there is not an hearb throughout the Garden, that taketh up a greater compaſſe with fuellage than doth the Beet: for otherwhiles you ſhall ſee it to ſpread it ſelfe two foot every way; whereunto the goodneſſe and nature of the ſoile is a great helpe. The largeſt that be knowne of theſe Beets are thoſe which grow in the territorie about Circeij. Some hold opinion, that the only time to ſow Beets, is when the Pomegranat doth bloſſome: and to tranſplant them ſo ſoon as they have five leaves. A wonderfull thing to ſee the diverſitie in Nature of theſe Beets, if it be true; namely, that the white ſhould gently looſen the belly and make one ſoluble, whereas contrariwiſe the blacke doe ſtay a flux and knit the bodie. It is as ſtraunge alſo to obſerve another effect thereof: for when the Colewort hath marred the taſt of wine within the tun or ſuch like veſſell, the only ſavour and
F ſmell of Beet leaves ſteeped therein, will reſtore and fetch it againe.

As touching the Beets, as alſo Colewoorts, which now beare all the ſway and none but they in Gardens; I do not find that the Greeks made any great account of them: and yet *Cato* highly extolleth Coules, and reporteth great wonders of their vertues and properties, which I meane to relate in my treatiſe of Phyſicke. For this preſent, you ſhall underſtand, that he putteth down

* *Olus*, which word *Plinie* uſeth much for Beets.

*For some resemblance of Parsley.

three kinds of them: the first, that stretcheth out broad leaves at full, and carieth a big stem: the G
second, with a crisped and frizled leafe, the which he calleth* Apiana: the third is smooth, plain, and tender in leafe, and hath but a little stalke; and these are of no reckoning at all with *Cato*. Moreover, like as Coleworts may be cut at all times of the year for our use, so may they be sown and set all the yeere long: and yet the most appropriat season is after the Æquinox in Autumne. Transplanted they be when they have once gotten five leaves. The tender crops called Cymæ, after the first cutting, they yeeld the Spring next following: now are these Cymæ nothing els but the young delicat tops or daintier tendrils of the maine stem. And as pleasant and sweet as these crops were thought to other men, yet *Apicius* (that notable glutton) tooke a loathing of them: and by his example *Drusus Cæsar* also cared not for them, but thought them a base and homely meat; for which nice and daintie tooth of his, he was well checked and shent by his father *Tyberius* the Emperour. H
After this first crop or head is gone, there grow out of the same Colewort other fine colliflories (if I may so say) or tendrils, in Summer, in the fall of the leafe; and after them, in winter: and then a second Spring of the foresaid Cymæ or tops against the Spring following, as the yeare before: so as there is no hearb in that regard, so fruitfull, untill in the end her owne fertilitie is her death; for in this manner of bearing she spends her heart, her selfe and all. There is a third top-spring also at midsummer about the Sunstead, which (if the place be any thing moist) affourdeth young plants to be set in summer time; but in case it be over-drie, against Autumne. If there bee want of moisture and skant of mucke, the better tast Coleworts have: if there be plentie and to spare of both, the more fruitfull and ranke they are. The only muck and that which agreeth best with Coleworts or Cabbages, is Asses dung. I am content to stand the I
longer upon this Garden-wort, because it is in so great request in the kitchin, and among our riotous gluttons. Would you have speciall and principall Colewoorts, both for sweet tast and also for great and faire cabbage? first and foremost, let the seed bee sowne in a ground througly digged more than once or twice, and well manured: secondly, see you cut off the tender springs and young stalkes that seeme to put out far from the ground; or such as you perceive mounting too ranke and over-high from the earth: thirdly be sure to raise other mould in manner of a banke up to them, so as there peepe no more without the ground, than the very top. These kind of Coleworts is fitly called Tritianum, for the threefold hand and travaile about them; but surely the gaine will pay double for all the cost and toile both. Many more kinds there bee of them, to wit, that of Cumes, which beareth leaves spreading flat along the ground, and opening in the K
head. Those of Aricia, bee for heigth no taller than they, but rather more in number than for substance thinner and smaller: This kind is taken for the best and most gainfull, because under every maine leafe in manner, it putteth forth other young tendrils or buds by themselves, which are good to bee eaten. The Colewort Pompeianum (so called of the towne Pompeij) is taller than the rest, rising up with a small stem from the root; howbeit among the leaves it groweth to more thickneſſe. These leaves braunch out but here and there, and are in comparison of others narrower; howbeit much set by for their speciall tenderneſſe, whereby they are soon sodden and dressed: and yet cold weather they cannot endure; whereas on the other side, the Coleworts of Bruzze or Calabria, like the best in winter, and bee nourished with the hard season: leaves they L
have exceeding great and large, but their stalks are but small: and as for tast, they be sharp and sower. The Sabellian Coles, what curled and ruffed leaves they carrie, it is a wonder to see: so thicke they are besides, that they rob the very stem of their nutriment, which thereby is the smaller: howbeit of all others they be reputed the sweetest. Long it is not since there came from out of the vale of Aricia (where sometimes there was a lake, and a tower standing upon it, remaining yet at this day to be seene) a kind of Cabbage-cole, with a mightie great head and an infinite number of leaves, which gather and close round togither; and these Coles we in Latine call Lacuturres, of the place from whence they come. Some Coleworts there be, which stretch out into a roundle; others againe extend in breadth, & be very full of fleshie brawnes. None, cabbage more than these, setting aside the Tritian Coleworts beforenamed; which are known otherwhiles to beare a head a foot thicke, and yet none put foorth their Cymes or tender buds more than M
they. Moreover, this would be noted, That howsoever all kinds of Coleworts eat much sweeter for being bitten with the frost, yet if there be not good heed taken in cutting off their head or tender crops and buds, so that the wound come not neare the heart and pith, (and namely, by cutting them aslope and byas in manner of a Goats foot) they will take much harme hereby.

A Such as be reſerved to bear ſeed, ought not to be cut at all. They alſo are not without their grace and commendation, which never paſſe the bigneſſe of a greene and ordinarie plant, and ſuch ſmall Coles are called Halmyridia, for that they grow not elſewhere but upon the ſea coaſts: and becauſe they will keepe greene, proviſion is made of ſuch for to ſerve in long voyages at ſea: for ſo ſoone as they bee cut up, before they touch the ground, they be put up into barrels where lately oile hath been, and thoſe newly dried againſt the time, and ſtopped up cloſe that no aire at all may enter in, and therein be they preſerved. Some there be, who in remooving the young plants, lay under their roots, Riek and Sea-weeds, or els bruiſed and powdred nitre, as much as a man may take up with three fingers, imagining thereby that they will the ſooner come to maturitie. Others againe take the ſeed of Trifolie and Nitre ſtamped togither, which they ſtrew upB on the leaves for the ſame purpoſe. [And as for Nitre, it is of this nature, to make them looke greene ſtill although they were ſodden;] or els they uſe to boile them after *Apicius* his faſhion, namely, to ſteepe them well in oile and ſalt mingled togither, before they be ſet upon the fire for to be ſodden.

Moreover, there is a way to graffe hearbs alſo as well as trees, namely, by cutting off the yong ſions that ſpring out of the ſtalke, and therein to inoculate as it were the ſeed of another plant, within the pith or marow thereof. This alſo may be practiſed upon wild Cucumbers. Over and beſides, there is a kind of wild Woorts growing in the fields, called Lapſana, much named and renowmed by occaſion of the ſonets & carols chanted in the ſolemnitie of *Iulius Cæſar* the Emperours triumph, and eſpecially of the merrie rimes and licentious broad jeaſts toſſed by his ſolC diers, who at every ſecond verſe caſt in his teeth, that in Dyrrhachium they lived of nothing els but of thoſe Woorts: noting indeed by way of cavill and reproach, his niggardiſe in rewarding them ſo ſlightly for their good ſervice. Now was this Lapſana a kind of wild Colewort, which they did eat of in ſtead of the fine and daintie tendrils and buds of the garden Coles.

As touching Sperages, there is not an hearb in the garden, whereof there is ſo great regard and care taken, as of them. Concerning their firſt originall and beginning, I have ſpoken at large in the treatiſe, Of the manner how to order the * wild of that kind, and to entertaine them in our gardens: as alſo how *Cato* willed us to ſow and plant them in plots of Reeds and Canes. Now there is a middle ſort of theſe Sperages, not ſo civile and gentle as the Aſparagi of the garden, and yet more kind and mild than the Corrudæ of the field: theſe grow every where abroad D even upon the mountains; and the champion countrey of high Almaine is overſpread and full of them: whereof there goes a pleaſant ſpeech and merrie conceit of *Tyberius Cæſar* the Emperour, namely, That there grew an hearb in Almaine very like to the Garden Sperage. For as touching that which commeth up of it ſelfe in Neſis, an Iſland of Campaine, it is thought the beſt ſimply of all others, without compariſon. The Garden Sperages be planted from the knots bunching togither within the ground, named Spongiæ, which eaſily may be replanted; for ſurely an hearb it is that carrieth a mightie head or cluſter as it were of roots, and the ſame putteth foorth ſpurns every way from it of a great depth into the ground. They ſend out at firſt certaine greene ſpurts or buds peeping forth of the ground, which growing to a ſtem in proceſſe of time riſe ſharpe in the top, and then are they chamfered and devided into certain muſculous braunE ches that ſpread abroad. This hearb may be ſown alſo of ſeed. *Cato* tooke not more pains about any other hearb, nor emploied greater diligence in the deſcription thereof, than he did in it. It is the very laſt thing that he treateth of in his booke, wherby it may appeare, that the man came all upon a ſodain and newly to the knowledge of that hearb, and the ordering of it. Hee giveth order, *Imprimis*, That the plot wherein they are to be ſowne, be moiſt, fat, and well digged. *Item*, That they be ſet halfe a foot every way aſunder one from another, & in no wiſe the place troden downe with ones foot: moreover, that two or three ſeeds be put togither in a hole, made before with a dibble directly by a line: for in thoſe daies they ſet them onely of ſeed. *Item*, That this would be done about mid-March, which is the proper ſeaſon therefore. *Item*, That they have their fill of dung; That they be kept cleane with often weeding: but in any caſe, That great heed F be taken in plucking up the weeds, that the tender buds or crops new knit and appearing above ground, be not knapt off. For the firſt yeere, hee would have them in winter time to be covered with ſtraw and litter, and ſo defended againſt the froſt and cold weather: alſo during the Spring enſuing, to be opened at the root, ſarcled and well weeded. In the third yeere, by his rule, they ought to be burned in the Spring time; and the ſooner that the ground is thus burned, the better

* *Corrudæ.*

will they come up againe and in greater plentie: which is the cauſe, that they like and proſper beſt in plots ſet with Canes and Reeds: for ſuch deſire to be burnt betimes in the yeere. Moreover, he giveth another precept, That they muſt not be ſarcled, nor have the earth opened & laid hollow about them, before their buds or tops be above ground to be ſeene, for feare leaſt in the ſarcling, the roots take harm therby, either by raſing or ſhaking them untill they be looſe. From which time forward, if a man would gather any of the ſaid buds or yong ſprings, for ſalad or other uſe, they ought to be plucked and ſlipped from the root; for otherwiſe, if they be broken & knapt off in the mids, the root will preſently put forth many unprofitable ſprouts, which will ſuck away all the heart and kill it in the end. Slive and plucke it you may in manner aforeſaid, untill it ſpindle and run to ſeed; which commonly beginneth to be ripe in the Spring, and then it muſt bee ſet on fire, as is beforeſaid: and then once againe, ſo ſoone as new buds and tendrons appeare above ground from the root, they muſt be ſarcled, bared, and dunged afreſh. Now after it hath growne in this manner nine yeeres, ſo as by this time it is waxen old, the roots muſt be taken up, and then replanted againe in a peece of ground well digged and as throughly dunged. Then (I ſay) ought the ſmall roots called Spongiæ in Latin, to be ſet again, a foot diſtant one from another. Furthermore, *Cato* ordaineth expreſſely by name, That ſheeps dung ſhould be uſed for that purpoſe, becauſe any other would breed ſtore of weeds. And verily there was never knowne any other thing practiſed or aſſaied afterwards, to more gaine and benefit about this Garden-hearb, unleſſe it were this, That about the Ides or mids of Februarie, ſome have let the ſeeds of Sperage lie well ſoked in dung, and then ſowed the ſame by heaps in little trenches or holes made for the purpoſe: after which, when the roots are woven and knit one within another into a knot, the ſpurns ſhooting from them they plant after the Æquinox in Autumne following, a foot aſunder: by which means they will continue bearing plenteouſly for ten yeares togither. For to breed and maintain theſe garden Sperages, there is no better ſoile than the gardens of Ravenna, from whence we have the faireſt of all other. As for the hearb named in Latin Corruda, I have written heretofore of it: and I underſtand thereby, the wild Sperage, which the Greekes call Orminum and Myacanthon: howbeit there be, who give it other names. Finally, I read of certaine Sperages which will engender and grow of Rams hornes beaten or ſtamped, and then put into the ground.

A man would thinke that I had diſcourſed alreadie of all ſuch Garden-hearbs as were of any price and regard: but that there remaineth one thing yet behind, whereof the greateſt gaine of all other is raiſed, and yet me thinks I cannot write thereof, but bee abaſhed to raunge it among the good hearbs of the Garden; and that forſooth is our Thiſtle: howbeit this is certain (to the ſhame be it ſpoken of our wanton and waſting gluttons) that the Thiſtles about Carthage the great, and Corduba eſpecially, coſt us ordinarily ſix thouſand thouſand Seſterces to ſpeake within compaſſe. See how vaine and prodigall we be, to bring into our kitchin and ſerve up at our table, the monſtruoſities of other nations, and cannot forbeare ſo much as theſe Thiſtles, which the very aſſes and other four-footed beaſts, have wit enough to avoid and refuſe for pricking their lips and muzzles. Well, ſince they be grown into ſo great requeſt, I muſt not over-paſſe the gardinage to them belonging, and namely, how they be ordered two manner of waies; to wit, replanted of young ſet or roots in Autumne, and ſowed of ſeed before the Nones of March. As for the plants beforeſaid, they ought to be ſlipped from it, and ſet before the Ides or mids of November in any hand: or els if the ground be cold, we muſt ſtay untill Februarie, and then be doing with them about the riſing of the Weſterne wind Favonius. Manured ywis it ought to bee and dunged (I would not els) ſo faire and goodly an hearb it is; and ſo forſooth (and it pleaſe you) they proſper the better and come on trimly. They are condite alſo and preſerved in vinegre (or els all were mard) in delicat life honey, ſeaſoned alſo and beſpiced (I may ſay to you) with the coſtly root of the plant Laſer-woort, yea and with Cumin; becauſe wee would not be a day without Thiſtles, but have them as an ordinarie diſh all the yeere long.

This is meant of Artichokes.

As for the reſt of Garden-hearbs behind, they need no long diſcourſe, but a light running over them may ſerve well enough. Firſt and foremoſt men ſay, That the beſt ſowing of Baſill, is at the feaſt * Palilia: but ſome are of mind, that Autumne is as good: and they that would have it done in winter, give order to infuſe and ſoke the ſeed firſt in vinegre. Rocket alſo and Garden Creſſes, are not daintie to grow, but be it winter or ſummer, they will ſoon come up and proſper at all times. But Rocket of the twaine, ſtands more at defiance with winter, and ſcorns all his frowning

* 11. Cal. May, i. 21 of Aprill.

A ning lookes and cold weather; as being of a contrarie nature to Lectuce, for it ſtirreth up fleſhly luſt: and therefore commonly it is joyned with Lectuce in ſalads, and both are eaten togither; that the exceeding heat of the one mixed with the extream coldneſſe of the other, might make a good marriage and temperature. Creſſes tooke the name in Latin * Naſturtium, *a narium tormento*, as a man would ſay, Noſe-wring, becauſe it will make one wryth and ſhrinke up his noſthrils: which is the reaſon, that the word is growne into a proverb, when wee would ſignifie a thing which will put life into one that is dull and unluſtie. In Arabia, the Creſſes (by report) proove to a wonderfull bigneſſe. Rue alſo is ſowed uſually in Februarie when the Weſtern wind Favonius bloweth, and ſoone after the Æquinox in Autumne. It cannot away with winter, for it brooketh not cold or rain, nor moiſt ground, neither will it abide mucke: it liketh well to grow
B in drie places, and ſuch as lie faire upon the Sun-ſhine; but a clay ground which is good for bricke and tile, that is alone for it and beſt of all other: it delighteth in aſhes, and therewith is it fed and nouriſhed; inſomuch as they uſe to blend aſhes and the ſeed togither, for to keepe away the cankerworme and ſuch like. Certes we find, that in old time Rue was in ſome great account and eſpeciall reckoning above other hearbs: for I read in auncient hiſtories, That *Cornelius Cethegus* at what time as he was choſen Conſull with *Quintius Flaminius*, preſently upon the ſaid Election, gave a largeſſe to the people of new wine aromatized with Rue. The Figtree and Rue are in a great league and amitie, inſomuch as this hearb, ſow and ſet it when and where you will, in no place proſpereth better than under that tree: for planted it may be of a ſlip or ſprig. Now if the ſame be put into a beane which hath a hole pierced or bored through, it will doe far bet-
C ter; by reaſon that the beane claſping the ſet cloſe and uniting thereunto her owne ſap and moiſture, cheriſheth it therewith and makes it come apace: moreover, it will propagat and ſet it own ſelf, for let the top of any of her branches be bent downward, ſo as it may but touch the ground, it will preſently take root. Of the ſame nature it is, that Baſill, but that Rue is ſomewhat later ere it come up, and groweth not ſo faſt. When Rue is come to bee of any ſtrength, there is untoward ſarcling and weeding of it; for if it be handled, it will raiſe bliſters upon a mans fingers, unleſſe the hands be well gloved, or defenſed with oile. The leaves alſo of Rue are kept and preſerved, being made up into little knitches or bunches.

Now as touching Ach or Parſley, the manner is to ſow it immediatly after the Spring Æquinox in March, but the ſeed would be firſt bruſed and beaten a little in a mortar: for ſome are per-
D ſuaded, that by this means it groweth thicker and more criſpe or curled: which it will doe likewiſe, in caſe after a bed be ſowed therewith, it be troden upon with mens feet, or beaten downe with a roller or cylindre. This peculiar propertie hath Perſley, That it will chaunge the colour. It was an auncient cuſtome in Achaia, to doe honour unto this hearb, by crowning thoſe that went away with victorie and wan the prize in the ſolemne tourneys and ſacred games Nemei, with a chaplet of Perſley. As for Mint, men uſe to ſet it at the ſame time, of a young plant, ſo ſoone as they ſee it is ſpurt and come up: but if it have not ſprung, yet they let not to plant the ſpurnes of the root, knotted into an head within the ground in manner of the Spongiæ in Sperage beforeſaid. This hearb taketh no great joy in moiſt grounds: all Summer it looketh greene and freſh, but in winter it hath a hempen hew. A wild kind there is of Mint, named in Latin Mentaſtrum,
E which will encreaſe by propagation or couching in the ground, as well as vine braunches: and ſo willing is it to take, that it makes no matter which end of a ſlip bee ſet downward; for at the wrong end it will come as well as at the other. Mint in the Greeke tongue hath chaunged the old name, by occaſion of the ſweet * ſmell that it carieth, whereas before time it was called Mintha, whereof we in Latin derived our name Mentha. A pleaſant hearb this is, and delectable to ſmell unto, inſomuch as you ſhall not ſee a husbandmans bourd in the countrey, but all the meats from one end to the other be ſeaſoned with Mints. If it be once ſet or ſowne, and have taken to a ground, it will continue there a long time. It reſembleth much the hearb Penyroiall, the nature whereof (as I have often ſhewed) is to blow her floures againe (upon the ſhorteſt day of the yeer) even as it hangeth prickt upon fleſh in the butcherie. Much after one ſort are kept and preſerved
F for ſawce (as if they were of the ſame kind) Mint, Penyroiall, and Nep: but above all, to a weake and peeviſh ſtomacke, Cumin agreeth moſt and is the beſt to get an appetite. It hath a qualitie to grow with root very eb, and ſcarſely taketh any hold of the earth, coveting to be aloft. In hot grounds and ſuch eſpecially as be rotten and mellow, it would be ſown in the midſt of the Spring. There is a ſecond ſort therof growing wild, which ſome call Cumin Ruſtick, others Thebaicke,

* In Greeke alſo ῥαφανος, quaſi ῥαφὺς φαρυς, quia caput tentat, becauſe it troubleth the head with exceſsive heat: vel potius, ἀπὸ τῆ ῥαφίδι, qui cordatos & prudentes facit: therfore there went a by word or proverbe in Greeke, applyed to a dull, fooliſh, and blockheaded fellow, ῥαφάνου ἔδωκε; Go, eat ſome Creſſes, learne more wit.

* ἐύοσμος, i. odoriferous or ſweet ſenting.

which being bruſed or beaten into powder, and drunke in water, is ſingular good for the paine of the ſtomacke. The beſt Cumin in our part of the world, which is Europe, commeth from Carpetania: for otherwiſe the greateſt name goeth of that in Æthyopia and Affricke. And yet ſome there be who prefer the Cumin of Ægypt before all. G

But *Aliſanders, which ſome Greekes call Hippoſelium, others Smyrneum, is of a ſtraunge and wonderfull nature above all other hearbes: for it will grow of the very liquor or juice iſſuing forth of the ſtalke. It may be ſet alſo of a root. And indeed, they that gather the foreſaid juice, uſe to ſay, that it hath the very taſt and relliſh of Myrrhe: and by *Theophraſtus* his ſaying, it came firſt of Myrrhe ſet into the ground. The old writers ordained, that Aliſanders ſhould bee ſet or ſowed in ſtonie grounds, without tending or looking unto, near to ſome *mud wall. But now in our daies it is planted in places digged and delved over, once or twice: yea, and at any time from the blowing of the weſterne wind Favonius in Februarie, untill the later Æquinox in September be paſt. H

*A corrupt word from *Olus atrum*: as if one would ſay, *Oluſatres*. Some take this for Lovach.

**Juxta maceriam*, whereupon ſome Apothecaries name it *Maceranium*.

Capres likewiſe are ſet and ſowed in drie places eſpecially: but the bed muſt bee digged in ſome low ground and laid hollow, environned round about with bankes, and thoſe raiſed with a groundſell of ſtone worke, otherwiſe it would bee raunging abroad and overſpread whole fields, and make the ground barren and unfruitfull. It flouriſheth in Summer, and continueth green untill the occultation or ſetting of the Brood-hen ſtar Vergiliæ: and ſandie ground is moſt familiar and agreeable to it. Touching the defects and imperfections of that kind which groweth beyond ſea, I have ſaid ynough among the ſhrubs and plants that be ſtraungers.

The Caraway alſo is a ſtraunger, as may appeare by the name of Caria, the native countrey thereof: it beareth one of the principall ſeeds that come into the kitchin. It careth not much where it is ſowne or planted, for it will grow in any ground, as well as the Aliſanders beforenamed. Howbeit, the beſt commeth out of Caria, the next to it in goodnes, we have from Phrygia. I

As for Loveach or Liviſh, it is by nature wild and ſavage, and loveth alone to grow of it ſelfe among the mountaines of Liguria, whereof it commeth to have the name Liguſticum, as being the naturall place beſt agreeing to the nature of it. Set or ſowed it may be in any place whereſoever: howbeit, this that is thus ordred by mans hand hath not the like vertue as the other, although it bee in taſt more pleaſant, and ſome call it Panax or Penace. Howbeit, *Cratevas* a Greeke writer, calleth the wild Origan or Cunila Bubula, by that name. But all others in manner, attribute the name of Conyza or Conyzoïdes to Cunilago, *i.* Fleabane Mullet: and of Thymbra, *i.* Winter Savorie, to Cunila, *i.* garden Savorie; which among us hath another name in Latine, to wit, Satureia, much uſed in ſauces and ſeaſoning of our meats. K

This Savorie is commonly ſowne in the month of Februarie, and hath no ſmall reſemblance of Origan, inſomuch, as they are never both uſed at once in ſauce or ſallads; their vertues & operations be ſo like. And yet the Ægyptian Origanum is preferred before the ſaid Savorie.

To come now to Lepidium, *i.* Dittander or Pepperwort, it was ſometime a ſtraunger alſo with us here in Italie. It is uſually ſowne after mid Februarie when the Weſterne wind Favonius hath plaied his part: afterwards when it hath put forth braunches, it is cut downe cloſe to the ground, and then it is laid bare and ſarcled, and the ſuperfluous roots cut away, & ſo in the end cheriſhed with mucke. Thus muſt it be ſerved the two firſt yeares. For afterwards they uſe the ſame in branches at all times, if the cruell and bitter Winter kill them not; for ſurely this hearbe is moſt impatient of cold. It groweth a good cubite in height, bearing leaves like to Lawrell, and the ſame ſoft and tender. But never is it uſed in meat without milke. L

Now for Gith or Nigella Romana, as it is an hearbe that groweth for the paſtrie, to fit the Bakers hand; ſo Anniſe and Dill are as appropriate to the kitchen for Cookes, and the Apothecaries ſhop for the Phyſician.

Sacopenium likewiſe is an hearbe growing verely in gardens, but is uſed in Phyſicke onely.

Certaine hearbes there be that accompanie others for good fellowſhip, and grow with them, as namely Poppie: for commonly ſowne it is with Coleworts, Purcellane, Rocket, and Lectuce.

Of garden Poppies there be three kinds, firſt the white: whereof the *ſeeds in old time being made into Biskets or Comfits with honie, were ſerved up as a banketting diſh. The ruſticall peaſants of the countrey were wont to guild or glaze (as it were) the upper cruſt of their loaves of bread with yolkes of egs, and then to beſtrew it with Poppie ſeed, which would cleave faſt unto it, having firſt underlaied the bottome cruſt with Ammi, or Anniſe ſeed and Gith: and then they put them into the oven being thus ſeaſoned; which gave a commendable taſt to their bread M

*This Iunket of Conceit was called *Coctum* by *Tertullian* and *Feſtus*.

when

A when it was baked. There is a ſecond kind of Poppie called Black: out of the heads or bols wher-
of, a white juice or liquor iſſueth by way of inciſion, like unto milke, and many receive & reſerve
it carefully. The third kind, which the Greekes name *Rhœas, our countreymen in Latine call *Corne Roſe.
the wandering or wild Poppie. It commeth up verely of the owne accord, but in corne fields a-
mong Barley eſpecially, like unto Rocket, a cubite high, with a red floure that ſoone will ſhed and
fall off, whereupon it tooke that name of Rhœas in Greeke. Touching other kinds of Poppie
growing of themſelves, I purpoſe to ſpeake in the Treatiſe of Phyſicke and medicinable hearbes.
Meane while this cannot be forgotten, that Poppies have alwaies, time out of mind, been high-
ly regarded and honoured among the Romanes; witneſſe *Tarquine* the Proud, the laſt king of
Rome, when his ſonnes Embaſſadours were come unto him for to underſtand his adviſe, how to
B compaſſe the ſiegnorie over the Gabians; drew them into his garden, & there by circumſtance
of topping the heads of the higheſt Poppies there growing, without any anſwere parole, diſpat-
ched them away, ſufficiently furniſhed by this demonſtration, with a bloudie deſſigne, even to
fetch off the greateſt mens heads of the citie, the readieſt meanes to effect his purpoſe.

Againe, there is another ſort of hearbes, that love for companie to be ſet or ſowne together
about the Æquinox in Autumne, namely, Coriander, Dill, Orach, Mallowes, Garden dockes or
Patience, Chervill (which the Greekes call Pæderos) and Senvie, which is of a moſt biting and
ſtinging taſt, of a fierie effect, but natheleſſe very good and wholſome for mans bodie: this hearb
will come of it ſelfe without the hand of man, howbeit, prove it will the better if the plant be re-
moved and ſet elſewhere. And yet, ſow a ground once withall, you ſhall hardly rid the place of it
C cleane: for the ſeed no ſooner ſheddeth upon the ground, but a man ſhall ſee it greene above
ground. It ſerveth alſo to make a pretie diſh of meat to be eaten, being boiled or ſtewed between
too little diſhes in ſome convenient liquor, in ſuch ſort, as a man ſhall not feele it to bite at the
tongues end, nor complaine of any eagerneſſe that it hath. The leaves beſides uſe to be ſodden,
like as other pot-hearbes. Now there bee of this Senvie, three kinds: the firſt beareth ſmall and
ſlender leaves, the ſecond is leaved like Rapes or Turneps, the third reſembleth Rocket. The beſt
Muſtard ſeed commeth out of Ægypt. The Athenians were wont to call it Napy, ſome Thaſpi,
and others Saurion.

To conclude, as touching the running wild Thyme, and Siſymbrum, i. Horſe-mint or Water-
mint, moſt hils are repleniſhed and tapiſſed as it were therewith: and ſpecially in Thracia, where
D a man ſhall ſee a mightie quantitie of wild Thyme braunches, which the mountaine waters or
land flouds carie away and bring it downe with their ſtreame to rivers ſides, and then folke plant
them. Semblably, at Sicyone there groweth great ſtore, conveighed thither from the mountains
neare adjoining: and laſtly, at Athens, brought thither out of the hill Hymettus. In like manner
alſo the foreſaid Water-mint commeth from the hils with a ſuddain daſh of raine, and is replan-
ted accordingly. It groweth rankeſt and proſpereth beſt in the brinkes and ſides of pits or wels,
alſo about fiſh-ponds and ſtanding pooles.

Chap. ix.

Of Finkle or Fenell and Hempe.

E

IT remaineth now among garden hearbes to ſpeake of thoſe that bee of the Ferule kind, and
namely of Fenell in particular, a hearb wherin Snakes and ſuch ſerpents take exceeding great
delight, as heretofore I have declared: and which being dried, is ſingular good to commend
many meats out of the kitchin into the hall.

There is a plant reſembleth it much, named Thapſia, whereof becauſe I have alreadie written
among other forraine hearbes, I will proceed forward to Hempe, which is ſo profitable and good
for to make cordage. This plant muſt bee ſowed of ſeed after the Weſterne wind Favonius blow-
eth in Februarie. The thicker that it groweth, the ſlenderer and finer it is. When the ſeed thereof
is ripe, namely, after the Æquinox in Autumne, folke uſe to rub it out, and then drie it either in
F the Sunne, the wind, or ſmoke. But the ſtalke or ſtem of the Hempe it ſelfe, they plucke out of the
ground after Vintage: and it is the Husbandmans night worke by candle light to pill and cleanſe
it. The beſt Hempe commeth from Alabanda, eſpecially for to make nets and toile; where bee
three kinds thereof. That part of the Hempe which is next to the rind or pilling, as alſo to the
inner pith within, is worſt: the principall of it lieth in the middeſt, and called it is Meſa. Next to
the

the Alabandian Hempe for goodneſſe, is that of Mylaſium. But if you goe to the talneſſe, there is about Roſea in the Sabines countrey, Hempe as high as trees. G

As touching the two kinds of Ferula, I have ſpoken of them in my diſcourſe of forrain plants. The ſeed of Ferula or Fennell-geant, is counted good meat in Italie: for it is put up in pots of earth well ſtopped, and will continue a whole yeare. And of two ſorts is this preſerved Compoſt, to wit, the Stalkes, and the Bunches whiles they be knit round and not broken and ſpread abroad. And as they call theſe knobs which they doe condite and keepe, Corymbi; ſo that Ferula, which is ſuffered to riſe up in ſtem for to beare ſuch heads, they tearme Corymbias.

Chap. x.

The maladies incident to Garden hearbes. The remedies againſt Piſmires, Canker-wormes, and Gnats. H

THe hearbes of the garden be ſubject to diverſe accidents, & namely, diſeaſes; as well as corn and other fruits of the earth. For not onely Baſill by age doth degenerat from the owne nature into wild creeping Thyme, but Siſymbrium alſo into Calaminth. The ſeed of an old Cole-wort will bring forth Turneps: and contrariwiſe, ſow the ſeed of an old Rape and Turnep, you ſhall have Coleworts come up of it. Cumin, if it be not kept neat and trim with much cleanſing, will begin to decay at one ſide of the ſtalke beneath, and die. Now hath Cumin but one onely ſtalke, and a root bulbous in manner of an Onion: it groweth not but in a light and leane ſoile. Otherwiſe, the peculiar diſeaſe appropriat to Cumin, is a kind of ſcurfe or ſcab. Alſo Baſil, I toward the riſing of the Dogge-ſtar, waxeth wan and pale. And generally, there is not an hearbe but will turne yellow, if a woman come neere unto it whiles ſhee hath her monthly ſickneſſe upon her.

Moreover, there be diverſe ſorts of little beaſts or vermine engendred in the garden among the good hearbes. And namely, upon the Navewes, you ſhall have gnats or flies: in Radiſh roots cankerwormes, and other little grubs: likewiſe, in Lectuce and *Beet leaves. And as for theſe Beet worts laſt named, you ſhall ſee them haunted with ſnailes, as well naked as in ſhels. In Leekes moreover or Porret there ſettle other ſpeciall vermine that bee noiſome to them ſeverally, but ſuch are very ſoone taught by throwing upon thoſe hearbes a little dung, for to it will they gather to ſhrowd and hide themſelves. Furthermore, *Sabinus Tyro* in his booke entituled *Cepuricôn, K which he dedicated to *Mecœnas*, writeth, That it is not good to touch with knife or hooke, Rue, Winter Saverie, Mint, and Baſill. The ſame Author alſo hath taught us a remedie againſt Emmets (which do not the leaſt miſcheefe to gardens, when they lie not to have water at command) and that is this, to take ſea mud or ooſe and aſhes together, to temper a morter of them both, and therewith to ſtop their holes. But the moſt forcible and effectuall thing to kill them, is the hearbe called Ruds or Turn-ſol. Some are of opinion, that the onely meanes to chaſe theſe ants away, is, with water wherein the pouder of a ſemi-bricke or halfe-baked tile is mingled. And particularly, for to preſerve Navewes, it is a ſingular medicine for them to have Feni-greeke ſowed among, as alſo for Beets to doe the like with Cich peaſe: for this deviſe will drive away the Cankerworme. But ſay, that this practiſe was forgotten, and that the foreſaid hearbs be alreadie come L up, what remedie then? Marie, even to ſeeth Wormewood and Houſleeke (which the Latins call Sedum, the Greekes Aeizoon) and ſprinckle the decoction or broth therof among them. Now what manner of hearbe this Houſleeke is, I have ſhewed you alreadie. It is a common ſpeech, that if a man take the ſeed of Beets and other pot-hearbes, and wet them in the juice of Houſleeke, otherwiſe called Sea-greene, thoſe hearbes ſhall be ſecured againſt all theſe hurtfull creatures whatſoever. And generally, no Cankerwormes ſhall doe harme to any herbage in the garden, if a man pitch upon the pales about a garden the bones of a Mares head; but he muſt be ſure it was of a Mare, for a horſe head will not ſerve. It is a common ſaying alſo, that if a river Crab or a Craifiſh be hung up in the mids of a garden, it is ſingular for that purpoſe. Some there are who make no more but touch thoſe plants which they would preſerve from the ſaid vermin, only with M twigs of the Dog berie tree, and they hold them wariſhed and ſafe ynough. Gnats keepe a foule ſtir in gardens where water runneth through eſpecially, and wherein there bee ſome ſmall trees growing: but theſe are ſoone chaſed away by burning a little Galbanum.

*Oleri.

*Of Gardening.

Chap.

A

Chap. xi.

What garden seeds be stronger, which be weaker than others. Also, what plants prosper better with salt water.

NOw as touching the change and alteration in seeds, occasioned by age and long keeping: some there be that are firme and fast, which hold their owne well, as namely, the seeds of Coriander, Beets, Leekes, garden Cresses, Senvie or Mustard seed, Rocket, Saverie, and in one word, all such as be hote and bite at the tongues end. Contrariwise, of a weaker nature, are the seeds of Orach, Basill, Gourds, and Cucumbers. Generally, all Summer seeds last longer than
B Winter: and Chibboll seed least of any other will abide age. But take the strongest and hardliest that be, you shall have none good after foure yeares, I meane only for to sow. And yet I must needs say, that Saverie seed will remaine in force and above that time. Raddishes, Beets, Rue, and Saverie, find much good by being watered with salt water; for to these especially it is wholesome Physicke against many infirmities: and besides, it is thought to give them a pleasant and commendable tast, yea, and it causeth them to bee more fruitfull. As for all other hearbes, they find benefite rather by fresh water. And since wee are light upon the mention of waters, those are thought best for this purpose which are coldest and sweetest to be drunke. Standing waters out of some pond, such also as are conveighed into gardens by trenches and gutters, are not good for a garden, because they bring in with them the seeds of many a weed. But above all other, rain wa-
C ters comming in white showers from heaven, be they that nourish a garden best, for these showers kill the vermine also which are breeding therein.

Chap. xii.

The manner of watering Gardens. What hearbes will proove the better by removing and replanting. Of the juices and savours that Garden hearbes afford.

THe best time of the day to water gardens, is morning and evening, to the end that the water should not be overheat with the Sunne. Basill onely would be watered also at noone. And
D moreover, some thinke, that when it is new sowen, it will make hast to come up very speedily, if it be sprinckled at the first with hote water. Generally, all hearbes proove better, and grow to be greater, when they be transplanted, but principally Leekes and Navewes. Nay, this removing and replanting of them is the proper cure of many sorances, for from that time forward, subject they will not be to those injuries that use to infest them; and namely, Chibbols, Porret, or Leekes, Raddish, Perseley, Lectuce, Rapes or Turneps, and Cucumbers. All hearbes which by nature grow wild, lightly have smaller leaves and slenderer stalkes: in tast also they be more biting and eager, than such of that kind as grow in gardens: as wee may see in Saverie, Origan, and Rue. Howbeit, of all others the wild Docke is better than the garden Sorrell, which the Latines call Rumex. This garden Sorrell or soure Docke is the stoutest and hardliest of all that grow: for
E if the seed have once taken in a place, it will by folkes saying continue ever there: neither can it be killed, doe what you will to the earth, especially if it grow neare the water side. If it bee used with meats, unlesse it bee taken with Ptisacum or husked Barley alone, it giveth a more pleasant and commendable tast thereto, and besides, maketh it lighter of digestion. The wild Docke or Sorrell is good in many medicines. But that you may know how diligent and curious men have been to search into the secrets of every thing, I will tell you what I have found contrived in certaine verses of a Poet, namely, That if a man take the round treddles of a Goat, and make in every one of them a little hole, putting therein the seed either of Leekes, Rocket, Lectuce, Persely,
5 Endive, or garden Cresses, and close them up, and so put them into the ground, it is woonderfull how they will prosper, and what faire plants will come thereof. Over and besides, this would bee
F noted, that all hearbes wild, bee drier and more keene than the tame of the same kind. For this place requireth, that I should set down the difference also of their juice & tasts which they yeeld, and rather indeed than of Apples and such like fruits of trees. The tast or smacke of Saverie, Origan, Cresses, and Senvie, is hote and biting. Of Wormewood and Centaurie, bitter. Of Cucumber, Gourds, and Lectuce, waterish. Of Majoram it is sharpe only: but of Persely, Dill, and Fennell,

nell, sharpe, and yet adorant withall. Of all smacks, the salt taste onely is not naturall. And yet otherwhiles a kind of salt settleth like dust, or in manner of roundles or circles of water upon hearbes: howbeit, soone it passeth away, and continueth no longer than many such vanities* and foolish opinions in this world. As for Panax, it tasteth much like Pepper: but Siliquastrum or Indish Pepper more than it, & therfore no marvaile if it were called Piperitis. Libanotis smelleth like Frankincense. Myrrhis, of Myrrhe. As touching Panace, sufficient hath been spoken already. Libanotis commeth naturally of seed in rotten grounds, leane and subject to deawes: it hath a root like to Alisanders, differing little or nothing in smell from Frankincense. The use of it, after it be one yeare old, is most wholesome for the stomack. Some tearme it by another name, Rosemarie. Also Alisanders, named in Greeke Smyrneum, loveth to grow in the same places that Rosemarie doth, and the root resembleth Myrrhe in taste. Indish Pepper likewise delighteth to bee sowed in the same manner. The rest differ from others both in smell and taste, as Dill. Finally, so great is the diversitie and force in things, that not onely one chaungeth the naturall taste of another, but also drowneth it altogether. With Persely the Cookes know how to take away the soureness and bitterness in many meats: with the same also our Vinteners have a cast for to rid wine of the strong smell that is offensive; but they let it hang in certaine bags within the vessels.

* For some Philosophers held opinion, That the taste of hearbes consisted of a Terrene substance and a Waterie mixed together: others (as *Democritus*) ascribed it to their formes and figures: which *Plinie* thinketh ridiculous.

Thus much may serve concerning Garden hearbes, such I meane onely as be used in the kitchin about meats. It remaineth now to speake of the cheefe worke of Nature contained in them: for all this while we have discoursed of their encrease and the gaine that may come thereof: and indeed treated wee have summarily of some plants and in generall tearmes. But for as much as the true vertues and properties of each hearbe cannot throughly and perfectly be knowne, but by their operations in Physicke; I must needs conclude, that therein lieth a mightie peece of worke, to find out that secret and divine power, lying hidden and enclosed within: and such a peece of worke, as I wot not whether there can be found any greater. For mine owne part, good reason I had, not to set downe and annex these medicinable vertues to every hearbe; which were to mingle Agriculture with Physicke, and Physicke with Cookerie, and so to make a mish mash and confusion of all things. For this I wist full well, that some men were desirous onely to know what effects they had in curing maladies, as a studie pertinent to their profession; who no doubt should have lost a great deale of time before they had come to that which they looked for, in running through the discourses of both the other, in case wee had handeled all together. But now, seeing every thing is digested and raunged in their severall rankes, as well pertaining to the fields, as the kitchin, and the Apothecaries shop; an easie matter it will be for them that are willing and so disposed, to sort out each thing and fit himselfe to his owne purpose, yea, and joine them all at his pleasure.

THE XX. BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

The Proëme.

*Since we are come thus farre, as to treat of the greateſt and principall worke of Nature, we will begin from hence forward at the very meats which men put into their mouths, and conveigh into their ſtomackes, and urge them to confeſſe a truth, that hitherto they have not well knowne thoſe ordinarie meanes whereby they live. And let no man in the meane time thinke this to bee a ſimple or ſmall peece of knowledge and learning, going by the baſe title and bare name that it carieth: for ſo hee may be ſoone deceived. For in the purſute and diſcourſe of this argument, wee ſhall take occaſion to enter into a large field as touching the peace and warre in nature; we ſhall handle I ſay a deepe ſecret, even the naturall hatred and enmitie of dumbe deafe and ſenceleſſe creatures. And verely, the maine point of this theame, and which may raviſh us to a greater wonder and admiration of the thing, lieth herein, That this mutuall affection which the Greekes call Sympathie, wherupon the frame of this world dependeth, and whereby the courſe of all things elſe doth ſtand, tendeth to the uſe and benefit of man alone. For to what end elſe is it, that the element of water quencheth fire? For what purpoſe doth the Sunne ſuck and drinke up the water, as it were to coole his heat and allay his thirſt? and the Moone contrariwiſe, breed humors and engender moiſt vapors? and both Planets eclipſe & abridge the light one of the other? But to leave the heaven and thoſe cæleſtiall bodies in their majeſtie; What is the cauſe that as the Magnet or load-ſtone draweth yron unto it, ſo there is another * ſtone abhorreth the ſame and drives yron from it? What ſhould the reaſon bee of the Diamant, that peerleſſe ſtone, the cheefe jewell wherein our rich worldlings repoſe their greateſt joy and delight: a ſtone otherwiſe *invincible, and which no force and violence beſides can conquer, but that it remaineth ſtill infrangible; and yet that the ſimple bloud of a poore Goat is able to burſt it in peeces? Beſides many other ſecrets in Nature, as ſtrange, yea and more miraculous. All which wee purpoſe to reſerve unto their ſeverall places, and will ſpeake of them in order. Meane while may it pleaſe the Reader to pardon us, and to take in good part the manner of our entrance into this matter: for albeit we ſhall deale in the beginning with the ſmalleſt and baſeſt things of all others, yet ſuch they be as are wholſome, and concern much the health of man and the maintenance of his life. And firſt will wee ſet in hand with the Garden, and the Hearbs that we find there.*

* Theamedes, cap. 16. lib. 36.

* Whereupon it is called *Adamas.*

Chap. I.

Of the wild Cucumber and the juice thereof Elaterium.

THis wild Cucumber, as we have ſaid heretofore, is far leſſe than that of the garden. Out of the *fruit hereof there is a medicinable juice drawne, which the Phyſicians call Elaterium. For to get this juice, men muſt not ſtay untill the *Cucumber be fully ripe: for unleſſe it bee taken betimes and cut downe the ſooner, it will leape & flurt in the handling from the ſtele whereto it hangeth, againſt their faces, with no ſmall danger of their eie ſight. Now when it is once gathered, they keep it ſo one whole night. The next morrow they make an inciſion and ſlit it with the edge of a cane. They uſe to ſtrew aſhes alſo thereupon, to reſtraine and keepe down the liquor which

* *Semen pro fructu abuſive.*

* Wherupon it is called *Tomachmenos.*

which issueth forth in such abundance: which done, they presse the said juice forth, and receive G
it in raine water, wherein it setleth: and afterwards, when it is dried in the Sunne, they make it up into Trochisques. And certaine these Trochisques are soveraigne for many purposes, to the great good and benefit of mankind: For first and foremost, it cureth the dimnesse and other defects or imperfections of the eyes: it healeth also the ulcers of the eielids. It is said moreover, that if a man rub never so little of this juice upon vine roots, there will no birds come neare to pecke or once touch the grapes that shall hang thereon.

The root of this wild Cucumber, if it be boiled in vinegre and made into a liniment, and so applied, is singular good for all kinds of gout; but the juice of the said root helpeth the tooth-ach. The root being dried and incorporat with rosin, cureth the ringworme, tettar, and wild scab or skurfe, which some call Psora and Lichenes: it discusseth and healeth the swelling kernels be- H
hind the eare; the angrie pushes also and biles in other Emunctories called Pani: and reduceth the stooles or skars left after any sore, and other skarres, to their fresh and native colour againe. The juice of the leaves dropped with vinegre into the ears, is a remedie for deafenesse. As for the liquor concrete of this Cucumber, named Elaterium, the right season of making it, is in Autumne: neither is there a drug that the Apothecarie hath, which lasteth longer than it doth: howbeit, before it be three yeeres old, it beginneth not to be in force for any purpose that a man shall use it: & yet if one would occupie it fresh & new before that time, he must correct the foresaid Troches with vinegre, dissolving them therin over a soft fire, in a new earthen pot never occupied before: but the elder they be, the better & more effectuall they are; insomuch as (by the report of *Theophrastus*) Elaterium hath been kept and continued good 200 yeers. And for fiftie I
yeeres it is so strong and full of vertue, that it will put out the light of a candle or lampe: for this is the triall and proofe of good Elaterium, if being set near thereto, before that it putteth out the light, it cause the candle to sparkle upward and downward. That which is pale of color, & smooth, is better than that which is of a greenish grasse color & rough in the hand; the same also is somwhat bitter withall. Moreover, it is said, that if a woman desire to have children, & do carie about her the fruit of this wild Cucumber fast tied to her bodie, she shall the sooner conceive & prove with child; provided alwaies, that in the gathering, the said Cucumber touched not the ground in any case. Also, if it be lapped within the woll of a Ram, and bee bound to the loins of a woman in travaile of childbirth, so that she be not her selfe ware thereof, she shall have the better speed and easier deliverance: but then, so soone as the infant and the mother bee parted, the said Cucumber must bee had out of the house in all hast, where the woman lyeth. Those writers who magnifie these wild Cucumbers, and set great store by them, affirme, That the best kind of them groweth in Arabia; and the next about Cyrenæ: but others say, That the principall be in Arcadia; That the plant resembleth Turnsoll; That between the leaves and braunches thereof there groweth the fruit, as big as a Wallnut, with a white taile turning up backeward in manner of a Scorpions taile: whereupon some there bee, who give it the name of the Scorpion Cucumber. True it is indeed, that as wel the fruit it selfe as the juice therof called Elaterium, be most effectuall against the pricke or sting of the Scorpion: as also that it is a medicine purgative of the bellie, but especially cleanseth the wombe or matrice of women. The ordinarie Dose is from halfe an
Obolus, ℈ß. i. halfe a Scriptule or Scruple. Obolus to a Solid [*i.* a dram;] according to the strength of the Patient. A greater receit than L
one Obolus, killeth him or her that taketh it: but beeing taken within that quantitie above named, in some broth or convenient liquor, it is passing good for the dropsie, yea and to evacuate those filthie humors that engender the lowsie disease. Beeing tempered with honie and old oile, and so reduced into a thin ointment or liniment, it cureth the Squinancie, and such diseases incident to the windpipes.

Chap. II.

Of the Serpentine Cucumber, called otherwise the Wandering Cucumber: also of the Garden Cucumbers, Melons or Pompions.

M
MAny there be of opinion, that the Serpentine Cucumber among us, which others call the Wandring Cucumber, is the same that the former Cucumber which yeeldeth Elaterium. The decoction whereof is of that vertue, that whatsoever is besprinkled therewith, no myce will come neare to touch it. The same being sodden in vinegre and brought to the consistence

A conſiſtence of an oïntment, is a preſent remedie to allay the pains of gout, as well in feet, hands, knees and arms, as in any other joynt whatſoever. Alſo, if the ſeed thereof, or the fruit alone, dried in the Sun and beaten to powder, be drunke to the weight of 30 deniers (Romane) in one tremine or wine pint of water, it aſſuageth the paine of the reines and the loines. Tempered with womans milke, it reſolveth all ſodaine tumors and ſwellings, being applied to the grieved place. But to come againe to Elaterium, it mundifieth the matrice and naturall parts of women; but if they be with child, they muſt take heed how they meddle with it, for it bringeth them to a ſhift, yea and haſteneth abortive or untimely birth. Good it is for all them that be ſhort winded. As for the yellow jaundiſe, it cureth it, if it be but ſnuffed up into the noſe. Annoint or bath the face with it in the Sun, it taketh away pimples and other ſpots there. Many attribute all the ſame
B properties and effects to the Garden Cucumbers: And in very deed, this fruit would not be deſpiſed, in regard of the uſe thereof in Phyſicke: for firſt and foremoſt, Take Cucumber ſeeds as many as three fingers will receive, ſtampe them with Cumin, and give the powder in wine to them that have the cough, for to drinke, you ſhall ſee preſent helpe. The ſame ſeeds taken in powder with breaſt-milke, cureth thoſe that bee lunaticke and * phranticke. Alſo, the weight of one * Acetabulum, [*i.* much about two ounces] cureth them that have the Dyſenterie or bloudie flix. Moreover, being taken with a like poiſe or quantitie of Cumin ſeed in mead or honyed water, it is ſingular good for them that reach up filthie matter from their lungs; as alſo for thoſe who have * weake and diſeaſed livers. If one drinke the ſame with ſome ſweet wine, it provoketh urine: and being injected by a clyſtre togither with Cumin, it eaſeth the paine in the kidnies
C and reines.

* *Phreniticis*, ſome read *Nephriticis*, and then it ſignifieth thoſe that have the ſtone or pains of the kidnies.
* 15 drams.
* *Iocineroſi.*

As for the fruit called Pompions or Melons, being eaten as meat, they coole the bodie mightily and make it ſoluble. The fleſhie ſubſtance of them applied unto the eyes, aſſuageth their pain and reſtraineth their wateriſh and rheumaticke flux. Their root healeth the * wens or ulcers gathered in manner of honey-combs: which ſwellings ſome call Ceria. Being dried, it ſtaieth vomits, ſo it be brought into powder and given to the weighr of * foure Oboli in honyed water: but the Patient when he hath drunke it, muſt walke preſently upon it halfe a mile. The ſame powder is deterſive and ſcouring, and therfore put into ſope and waſhing-balls. As for the rind or barke thereof, it procureth vomit indeed, but it cleanſeth the skin as well as the other. The ſame doe the leaves of any domeſticall or garden Cucumbers or Melons, if they be made into a lini-
D ment. The ſaid leaves alſo ſtamped with honey and brought to the forme of a cataplaſme, cure the bloudie-falls or night-blains: but tempered with wine, they heale the bitings of dogs, as alſo of the Millepeed, which the Greeks call Seps, a long worm with hairie feet, doing much harme to cattaile eſpecially; for looke where it biteth, the place preſently ſwelleth and putrifieth. The very Cucumber it ſelfe is of a comfortable odour, and recovereth the faintings of the heart, and thoſe that ſwoune. Finally, if you would make a delicat ſalad of Cucumbers, boile them firſt, then pill from them their rind, ſerve them up with oile, vinegre, and honey: certein it is, they are by this means far ſweeter and plenſanter than otherwiſe.

* *Meliceridas.*

* two ſcruples.

Chap. iii.

E

Of the wild Gourd, and the Rape or Turnep.

THere is a kind of wild * Gourd, which the Greeks call Somphos, as one would ſay, hollow and emptie, (for thereupon it tooke that name) a finger thicke, growing no where els but among rocks and ſtonie grounds. If a man chew this Gourd and ſucke out the juice therof, he ſhall find it very comfortable to the ſtomacke. There is another wild Gourd called Colocynthis, but that is full within, and leſſe than that of the Garden. The pale of this kind is the better, for ſuch be uſed in Phyſicke: and yet that of graſſe greene colour when it is dried, if it bee taken alone, doth purge and evacuat the belly. Alſo being infuſed into the bodie by way of clyſtre, it cureth all the diſeaſes of the guts, flanks, reins, and loins: it helpeth the palſie likewiſe, or the re-
F ſolution of the ſinews. After the ſeeds be taken forth, ſome fill the place with honyed water, and ſo ſeeth all togither untill halfe be conſumed, and give of this decoction the quantitie of foure Oboli, with good ſucceſſe to thoſe that be troubled with a cough. The powder therof dried & incorporat with ſodden honie, & ſo reduced into pills and ſwallowed, is good for the ſtomack. The ſeeds be ſingular to cure the Iauniſe; but the partie muſt drinke honyed water preſently after it.

* This is not *Colocynthida.*

The fleshie pulpe within mixed with wormwood and honey, taketh away the tooth-ach: & a col- G
lution made with the juice thereof and vinegre hot, confirmeth and fasteneth the teeth that be
loose in the head. Moreover, if with it and oile togither, one rub the backe-bone, the loins, and
the haunches or huckle, it will immediatly rid them of their paine and ach. But I will tell you a
straunge and wonderfull effect indeed: If a man take their seeds of * even number, & hang them
either about the necke or armes of them that have the ague, they will drive the acceſſe or fit
away; be it any of those intermittent fevers which the Greeks call Periodicall. Thus much for
the wild Gourd, Colocynthis.

* It may be, he meaneth a number respective to the type of the ague, that is to say, 3 in a tertian, 4 in a quartan, 5 in a quintan, &c.

As for the domesticall Gourd of the Garden, after it is scraped and pilled, take the juice
thereof and distill it warme into the eares, it will ease the paine. The inner flesh or pulpe clean-
sed from the seed, is passing good for to be applyed to the agnels or corns of the feet: also to be H
laid unto those impostumes or swellings, that grow to an head or suppuration [which the
Greeks call Apostemata.] The liquor or decoction of the Gourd, sodden all whole as it is, with
rind, seed, and pulpe, doth strengthen the loose teeth, and stinteth their ach. Wine wherein it is
boiled, is a singular decoction to bath the eyes, for to represse and stay the flux or rheume that
falleth upon them. The leaves of it, togither with the fresh leaves of the Cypresse tree newly
gathered, being stamped and applied to wounds, be excellent to heale them. The Gourd it selfe
enclosed within clay, and so baked or rosted under the embers, and then stamped and incorpo-
rate with goose grease, hath the like effect. Moreover, the scrapings or shavings of the rind,
mightily cooleth the heat of the gout, if it be not inveterate and old: the heats also of the head,
* Seriasis. and especially the * burning therein, which troubleth little infants. The said parings being in- I
corporat with the filth rubbed or curried from mens bodies in bains and stouves after they have
swet, and so laid upon any part that hath S. *Anthonies* fire, allaieth the heat and bringeth the
place into temper: so doe the seeds also, used in the like manner. The juice or liquor drawn out of
the said parings, being mingled with oile of roses and vinegre, and then made into a liniment,
doth mitigate the extreame heat of burning fevers. The ashes of Gourd parings burnt and stre-
wed drie upon any part of the bodie that is burnt or skalded, doth heale them wonderfully. *Chry-
sippus* the Physician condemned Gourds, and forbad men to eat of them. Howbeit, all Physici-
ans doe resolutely agree in this, That they be passing good for the stomacke: as also for the ex-
ulcerations of the guts and bladder.

As for Rapes or Turneps, they likewise are medicinable and have their use in Physicke: for to K
begin withall, if one lay them very hot to kibed or humbled heeles, they will cure them. Also, if
the feet be frozen and behummed with cold, lay them therto sodden in water, and this fomenta-
tion will restore them to their former heat. The hot decoction or broth of Rapes, is passing good
for to bath the goutie members, yea if it were a cold gout. The Rape or Turnep root, raw as it
grew, brayed in a mortar with salt, is a remedie for all diseases of the feet, be they cornes, kibes,
bloudy fals, swellings of cold, or any other infirmities whatsoever. Rape seed bruised to a lini-
ment drunken also with wine, is reported to be a soveraigne medicine against the stinging of ser-
pents, and any other poison: Howbeit many thinke, that it is a preservative and countrepoison,
when it is taken in wine and oile. *Democritus* banished Turneps altogither from the bourd, by
reason of the ventosities or windinesse that it engendreth. But *Diocles* on the other side extolled L
and praised them as much; and affirmeth, That they will pricke forward to *Venus*. The like doth
Dionysius report of them, and the rather (saith hee) if they be condite with Rocket. Hee writeth
moreover, That if they be rosted or baked under the ashes, and so incorporat with grease, they
will make a notable good cataplasme for the gout & joynt-ach. The wild Rape or Turnep grow-
eth commonly every where among corne fields: it braunceth much, carrieth a white seed, twise
as big as that of the Poppie. This being incorporat with urine of equall quantitie, is much used
to take away rivels, and to smooth the skin both of the face and also of the whole bodie besides.
To conclude, the roots of Ervile, Barley, Wheat, and Lupins, be good for nothing at all.

Chap. iiii.

M

The divers sorts of Navews: of the wild Radish: of the Garden Radish, and the Parsnep.

* *Angulosis caulibus, folio apij, flore anethi.* Ex Dioscoride.

THe Greeke writers observe two kinds of Navews, which serve for Physicke. The first riseth
up with *a cornered and edged stalke, beareth leaves resembling Parsley, and putteth out

floures

A floures like Dill: this they call Bunion: the decoction whereof beeing drunken with honyed water, or with a dram weight of the owne juice, is counted soveraigne for the purgations that follow women, for the defects of the bladder and urine. The seed parched and beaten to powder, and so taken in a draught of hot water, to the quantitie of foure * cyathes, cureth the bloudie flix: but it stoppeth urine unlesse the Patient drinke Line-seed withall. The second kind is named Bunias, and resembleth both Rape and Radish: the seed of it is excellent good against poison, and therefore in Antidotes or preservatives it is much used. That there be Radishes wild, we have shewed heretofore. The most commended above all others, is that which groweth in Arcadia: although there are of them in other countries, and those counted better, onely for to provoke urine. Otherwise they purge choller, and namely their rinds infused in wine do the same.

* a Cyath is ten drams.

B Now over and besides their vertues and properties related heretofore, they discharge and cleanse the stomacke, cut and extenuate fleame, and withall, be diuretical and procure urine.

There is a kind of Garden Radish in Italy, which they name Armoracia, used also in Physick: the decoction wherof, if a man take a draught of it in a morning, to the quantitie of a cyath, doth fret, breake, and expell the stone by way of gravell. Boile the same in water and vinegre, therwith bath or annoint the place stung with any serpent, and it will heale it up. Radish taken with hony in a morning next ones heart fasting, is good for the cough. The seed parched, and so chewed alone without any thing els, assuageth the pain of the small guts, * in the flanks and Hypochondriall parts. The decoction of Radish leaves sodden in water and so drunke, or the very juice of the root it selfe as much as two cyathes, is thought to be a singular medicine against the breeding

Leganoponon.

C of bodie-lice. Radishes stamped in a mortar and brought into the forme of a liniment, are thought to be excellent good for hot inflammations: the rind also stamped togither with honey and laid to any bruised place that looketh blacke and blew after a fresh stripe, dissolveth that cluttered bloud, and reduceth the former colour. The chewing of the quickest and most biting Radishes, keepeth them awake that are given to overmuch drowsinesse & enclined to the lethargie. The seed parched and afterwards stamped and incorporat with honey, cureth them that take their wind short. The same is also held for a countrepoison. A defensative also the Radish is, against Scorpions, and resisteth their poisoned sting: for let a man rub his hands well either with the juice of the root, or the seeds, he may handle Scorpions safely. Doe but lay a Radish upon a Scorpion, he will presently die. Moreover, *Nicander* affirmeth, That Radishes be passing good

D for them that have eaten either venomous mushroms, or els Henbane. The two *Apollodores* prescribe Radish to be given unto them, who suspect themselves to be poisoned with the viscous gum of the white Chamæleon root called Ixias; but taken diversly: for the one of them surnamed *Citieus*, giveth the seed stamped, and so to drinke it in water: the other *Apollodorus*, of Tarrentum, ordaineth the juice of Radish for this effect & purpose. Moreover, Radishes are thought good to diminish and extenuat the swelling splene: they are holesome for the liver, and mitigate the paine of the loines. Being taken with vinegre or Senvie, they help them that are in a dropsie, or falne into a lethargie. *Praxagoras* is of judgement, That Radishes should be given for to eat, unto them that are troubled with the Iliacke passion, to wit, the paine and wringing of the small guts. And *Plistonicus* appointeth them to be eaten of those that bee troubled with a continuall

* *Iliosis, Hermol.* some read *Ileosis*, & then it signifieth, Purflixe.

E flux, by reason of a feeble stomacke, called thereupon Cœliaci. They heale the Dysenterie or exulceration of the guts: they evacuat also and rid away the filthie matter and corruption of impostumes gathered about the midriffe and principall parts, if they be eaten with honey. But some for this purpose would have them luted or bedawbed with clay, and so rost or bake them afterwards under the ashes; and being thus prepared, they are effectuall to bring downe womens tearms. Being taken with vinegre and honey in manner of an oxymel, they chase wormes out of the guts and belly. If they be sodden to the thirds, and their decoction given to drink with wine, they doe much good to them who have a rupture, and their guts falne downe into the burse of

F their cods: and in this wise they rid and skoure away the cluttered and offensive bloud gathered in the guts, and sent thither from any other part. *Medius* the Physician prescribeth them to bee boiled and given to the same purpose; as also to those that spit and reach up bloud: yea and to women in childbed newly laid, for to encrease their milke. *Hippocrates* counselleth women whose haire is given to shed much, for to rub their heads with Radish roots: also to apply them bruised in manner of a cataplasme unto the navell, when they be tormented with the paines of the matrice. They will bring to the native and lively colour, the parts that are cicatrized or newly skarred.

red. The ſeed bruiſed and tempered with water, and ſo laid as a cataplaſme, ſtayeth the running of cancerous or eating ulcers, which the Greekes call Phagedænæ. *Democritus* is of opinion, That much feeding upon Radiſhes, ſtirreth up luſt and maketh folke amorous; which peradventure is the reaſon, that ſome have thought they be hurtfull to the voice. The leaves of thoſe Radiſhes onely that have the longer roots, are ſaid to quicken the eye-ſight: but if a man perceive that hee hath either inwardly taken for a medicine, or applied outwardly, a Radiſh root which is over ſtrong, he muſt preſently have Hyſſope given him: for this Antipathie and naturall contrarietie there is betweene theſe two hearbs, That the one correcteth the other. For them that bee hard of hearing, Phyſicians uſe to inſtill the juice of the Radiſh by drop-meale into the eares. And for them that would perbreake or vomit, the beſt way to take it, is at the end of a meale with the laſt meat. G

* *Summo cibo*, although *Dioſcorides* ſaith *primo cibo*: and himſelfe in the former booke *Jeiunii*,

As touching Hibiſcum, like it is to the Parſnep: ſome call it Moloche Agria, others Piſtolochia: it cureth the ſores and ulcers that bee in griſtles, and knitteth broken bones. The leaves thereof drunke with water, looſen the belly, and chaſe away Serpents. Applied in a liniment or otherwiſe rubbed upon a place ſtung with Bee, Waſpe, or Hornet, they are a preſent remedie. The roots thereof digged out of the ground before Sun-riſing, and enfolded or wrapped in wooll as it grew upon the ſheeps backe, without any other artificiall colour, and namely of an ewe, which hath yeaned likewiſe an ewe lambe; is thought to be a ſingular thing for to be bound unto the ſwelling kernels called the Kings evill, yea although they were exulcerat and ran. But ſome are of this mind, That for to doe this deed, it ſhould bee gotten up with an inſtrument of gold; and great heed ſhould be taken, that after it is once up, it touch not the earth againe. Finally, *Celſus* giveth counſell, to lay the root thereof ſodden in wine to the goutie joynts that are without tumor and ſhew no ſwelling. H I

Chap. V.

Of Staphylinus, or the Parſnep. Of Chervill, the Skirwirt: of Seſeli, Elecampane, and Onions.

There is a ſecond kind of Parſnep, named Staphylinus, which commonly men call the Wandring parſnep. The ſeed bruiſed and drunke in wine, is ſingular good for them that have ſwolne bellies; the riſing or ſuffocation of the mother in women, with the torments and paines thereto incident, it cureth; inſomuch as it reduceth the matrice into the right place: being applied alſo as a liniment with wine cuit, it helpeth the wrings and throwes of their belly. It is not amiſſe alſo for men to take it; for the ſeed being ſtamped togither with bread crums, of each a like portion, and ſo drunke with wine, cureth the belly-ach with them alſo. It provoketh urine: and beeing applied freſh and new with honey, it repreſſeth the ſpreading of fretting and running ulcers. The powder thereof alſo being drie and ſtrewed thereupon, hath the like effect. *Dieuches* adviſeth to give the root therof in honeyed water, againſt the infirmities of liver, ſplene, flankes, ſmall guts, loines, and reines. *Cleophantus* ſaith, that it will helpe (in that manner taken) an old bloudie flix, which hath continued a long time. *Philiſtio* boileth the root in milke, and giveth foure ounces therof to them who are troubled with the ſtrangurie, or piſſe by drop-meale: but with water, he giveth it for the dropſie; to thoſe alſo that with a cricke or crampe have their necks drawne backward; for the pleuriſie, and epilepſie or falling ſickneſſe. Moreover, it is commonly ſaid, That whoſoever hath this root about them, are ſafe enough for being ſtung with any Serpent: nay if they doe but taſt thereof before-hand, they ſhall take no harme if they be either bitten or ſtung by them: and ſay they be alreadie ſtung, let them apply it to the wounded place with hogs greaſe, and it will heale it up. The leaves chewed helpe the indigeſtion and cruditie of the ſtomacke. *Orpheus* ſaid moreover, That this root had an amatorious propertie to win love: haply becauſe much feeding thereof (as it is well knowne) doth ſollicit unto the game of love, and maketh folke amorous: which is the reaſon alſo that ſome have put downe in writing, That it will helpe women to conceive. As for the Garden Parſneps, they are in many other reſpects of great force and very powerfull; but the wild is more effectuall, and principally that which groweth in ſtonie grounds. The ſeed of the Garden Parſnep alſo, being drunke in wine, or vinegre and wine togither, ſaveth thoſe that are ſtung with Scorpions. If a man picke his teeth and rub them all about with a Parſnep root, he ſhall be eaſed of his tooth-ach. K L M

The

A The Syrians are great Gardiners, they take exceeding paines and bee moſt curious in gardening; whereupon aroſe the proverb in Greeke, to this effect, *Many Woorts and Pot-hearbs in Syria.* They uſe to plant in their gardens a certain hearb very like to a Parſnep, which ſome call Gingidium, *i.* Tooth-picke Chervill: more ſlender and ſmaller it is onely, and therewith bitterer in taſt, but it it worketh the like effects. They uſe to eat it both ſodden and raw, & find it agree well with the ſtomacke; for it drieth up all the ſuperfluous humours and excrements which be bedded and deeply rooted within it.

As for the wild Skirwort that groweth wandring every where, it is like both in ſhape and operation to thoſe of the Garden. It ſtirreth up the appetite and skoureth the ſtomack of thoſe crudities which cauſed dulneſſe therein, and loathing to meat. *Opion* is verely perſuaded, that if one
B eat it with vinegre aromatized with Laſerpitium, or take it with pepper and honyed wine, or els with the pickle of fiſh named Garum, it provoketh urine, and putteth him or her in mind of love delights. Of the ſame opinion alſo is *Diocles.* Furthermore, that it is a cordiall, and doth mightily corroborat and ſtrengthen the heart, upon recoverie of a long and daungerous ſickneſſe; and is beſides ſingular good to ſtay the ſtomacke after much caſting and vomiting. *Heraclides* was woont to give Skirworts to them who had drunk Quick-ſilver: to ſuch alſo as were but cold, and could not ſufficiently perform the duties of mariage: finally, to them that being newly crept out of their beds after ſome grievous diſeaſe, had need of reſtoratives. *Hiceſius* was of this mind and ſaid, they were good for the ſtomack becauſe no man could poſſibly eat three Skirwort roots together: and yet he thinketh that they would agree very well with thoſe weake perſons who were
C lately ſick and newly walking abroad, againſt they ſhould fall to their old drinking of wine again. But to come more particularly to the garden Skirwort, If the juice thereof be drunke with Goats milke, it ſtayeth the flux of the belly called the Laske. And thus much for the Skirwort, named in Latin Siſer. But foraſmuch as the proximitie and likeneſſe in many Greeke names many a time confoundeth the memorie and deceiveth men, cauſing them to miſtake one thing for another, I will for vicinitie & neighbourhood ſake annex unto Siſer, the herb Siler or Seſeli; for me thinks they will do very well to ſtand togither: but this is an herb very common & well known. The beſt is that which commeth from Marſeils, & is thereupon named Seſeli Maſſilienſe: it hath a broad flat ſeed and a yellow. A ſecond kind thereof is named Æthiopicum, with a blacker ſeed: but the third which is brought from Candie, and therefore tearmed Creticum, is of all other moſt odo-
D riferous and ſmelleth ſweeteſt. The root of Seſeli or Siler, caſteth a pleaſant ſavour: and as men ſay, the Vultures alſo or Geirs feed upon the ſeed. If a man or woman drinke it with white wine, it cureth an old cough; it knitteth thoſe who are burſen bellied, or have ruptures; and laſtly, helpeth them that bee much troubled with cramps or convulſions. Likewiſe, if it bee taken to the weight or quantitie of two or three * Ligules, it cureth thoſe who have their necks drawne backward to their ſhoulders with the Spaſme; it correcteth the defects & faults of the liver; it allaieth the wrings and torments of the guts; and bringeth them to piſſe with eaſe and freely who are afflicted with the Strangurie. The very leaves of Siler are likewiſe medicinable, for they procure eaſie childbirth: yea and in that reſpect the very dumb four-footed beaſt findeth the benefit therof: and that know the Hinds well enough by a ſecret inſtinct of nature, who beeing neare their time
E and readie to calve, feed upon this hearb moſt of all others. Good it is againſt S. *Anthonies* fire, applied to the place in manner of a liniment. Certes, if a man eat either the leafe or the ſeed of Siler, preſently after meat, or at the latter end of repaſt, it helpeth digeſtion. It ſtaieth the gurrie or running out of the belly in foure-footed beaſts, whether it bee given ſtamped by way of a drench and ſo injected, or chewed drie among their meat with ſalt. If kine or oxen be ſicke, ſtampe it and poure it down their throats, or els clyſterize them with it. As for Elecampane, if it be chewed upon an emptie ſtomacke faſting, it confirmeth the looſe teeth, ſo that it bee taken as it was digged forth of the earth before it touch the ground againe. Beeing confected or condite, it cureth the cough. The juice of the root ſodden, expelleth the broad worms bred in the guts. The powder of it dried in the ſhadow, helpeth the cough, the ſtitch, and cramp, diſſolveth windineſſe; & is good
F for the * accidents incident to the throat and windpipes. It is a ſoveraigne medecine againſt the pricks or ſtings of venomous beaſts. The leaves applied as a liniment, with wine, appeaſe the extreme pain of the loins. As for Onions, I cannot find that there bee any of them grow wild. Thoſe which are ſown in gardens, I am ſure, will with their ſmell only cauſe the eyes to ſhed tears, and by that means clarifie the ſight: but if they be annointed with the juice, they will mundifie the better.

* *Ligula* may be taken for *Cochleare, i.* a ſpoonfull: it containeth three drams and a ſcruple, ſomewhat under halfe an ounce, as a good ſpoone wil do with us.

* *Arterijs.*

It is ſaid that they will procure ſleepe, and heale the cankers or vlcers of the mouth, being chewed with bread. Alſo, greene Onions applied with vinegre to the place bitten with a [mad] dog, or els drie, and laid to with Honie and Wine, ſo that the plaiſter or cataplaſme be not removed, in three daies cureth the hurt without daunger. In this manner alſo they will heale *galled places. Being roſted under the aſhes, many uſe to applie them with Barley floure or meale, as a pulteſſe or cataplaſme to the eies that bee waterie or rheumaticke, as alſo to the vlcers of the privie parts. The imunction of the eies, with the juice thereof, is thought to cleanſe their cicatrices or *cloudineſſe of the eies called the pin & web: as alſo to cure the pearle there breeding: moreover the bloudſhotting or red ſtreakes in the white, & the white ſpots appearing in the blacke circle about the apple. Moreover, it cureth bitings & ſtings of Serpents, yea, and healeth all vlcers, being emplaiſtered with honey. Alſo the exulcerations or impoſtumes within the eares, are by it & womens milke cured. And for to amend the ringing & unkind ſound and noiſe therin, & to recover thoſe that be hard of hearing, many have uſed to drop the juice of Onions together with Gooſe greaſe or els honey. Furthermore, they give it to be drunken with water, unto thoſe that ſuddainly become ſpeechleſſe and dumbe. A collution alſo made with Onions, helpeth the tooth-ach. And being laid upon the wounds, made either with prick or bite of any venomous beaſt, and eſpecially of Scorpions, it is thought to be a ſoveraigne ſalve. Many are wont (to very good effect) for to bruſe Onions, and therewith to rub thoſe parts that be troubled with a skurfe & running mange, as alſo to recover haire where it is ſhed and gone. Being boiled, they are given for to bee eaten, unto thoſe who are diſeaſed with the bloudie Flix or paine of the reines and loins. Their outward pillings burnt into aſhes and mingled with vinegre, cure the bitings and ſtings of ſerpents, if the place bee bathed or annointed therewith, yea, and the very Onion it ſelfe being applied with vinegre, cureth the ſting of that ſhrewd worme Milliped. As for all other vertues and properties of Onions, the Phyſicians are wonderfull contrary one to another in their writings: for our moderne and late writers doe hold and ſo have delivered in their books, That Onions are hurtfull to the parts about the heart, and other vitall members: as alſo, that they hinder digeſtion, breeding wind and ventoſities, and cauſing drought or thirſtineſſe. *Aſclepiades* and his ſect or followers, contrariwiſe affirme, That Onions are ſo wholeſome, that they will make them well coloured who uſe to feed upon them. And more than ſo, they ſay that if one in health every day eat of them faſting, he ſhall be ſure to continue healthfull, ſtrong and luſtie: that they be good for the ſtomack, in this regard, that they cauſe rifting and breaking of wind upward, which is a good exerciſe of the ſtomacke: and withall, that they keepe the bodie looſe and laxative, yea, and open the Hæmorrhoid veines, if they be put up in manner of ſuppoſitories. Alſo, that the juice of Onions and Fennell together, be marvellous good to bee taken in the beginning of a *Dropſie. *Item*, That their juice being incorporate with Rue and Honie, is ſoveraigne for the Squinance. As alſo that they will keepe waking thoſe who are fallen into a Lethargie. To conclude, *Varro* ſaith, That if Onions bee braied with ſalt and vinegre, and then dried, no woormes or vermine will come neare that compoſition.

* Sic & attrita ſanant.

* ὑφέλκια.

* *Hydrópes*, ſome read *Hypochyſes*, i. *Suffuſiones*; out of *Dioſcorides*, to wit, the Cataract.

Chap. vi.

Of cut Leekes or Porret: of bolled Leekes: and of Garlicke.

POrret, otherwiſe called Cut-Leekes or unſet Leekes, ſtancheth bleeding at the noſe, in caſe it be ſtamped and put up cloſe into the noſethrils, or otherwiſe mingled with the pouder of the Gall-nut, or Mints. Moreover, Porret ſtaieth the immoderat ſhift or flux of bloud, that followeth women upon a ſlip or abortive birth, if the juice thereof be drunke in breaſt-milke. In the ſame manner it helpeth an old cough and all other diſeaſes of breaſt and lungs. Burnes and ſcaldings are healed with a liniment made of Porret or Leeke blades: likewiſe the Epinyctides: for ſo in this place I tearme that vlcer, which in the Lachrymall or corner of the eie runneth and watereth continually: ſome call it Syce, that is to ſay, a Fig. And yet others there bee who underſtand by that word [Epinyctides] the blackiſh or blew bliſtering wheales, the bloudie fals I mean and angrie chilblanes, that in the night diſquiet and trouble folke which have them. But to come againe to our Porret: the blades thereof ſtamped and laid too, with Honie, healeth all ſores and vlcers whatſoever. The biting of any venomous beaſt, the ſting alſo of Serpents, are cured therewith. As for the impediments of the hearing and the eares, they be remedied with the juice

of

A of Leekes and Goats gall, or elſe a like quantitie of honied wine inſtilled thereinto. And as for the whiſtlings or craſhing noiſes that a man ſhall heare within head other whiles, they are diſcuſſed with the juice of Leekes and womans milke dropped into the eares. If the ſame be ſnuffled up into the noſthrils, or otherwiſe conveighed that way up into the head, it eaſeth head ach. For which purpoſe alſo it is good to poure into the ear, when one goeth to bed and lieth for to ſleep, two ſpoonefuls of the ſaid juice, and one of Honie. The juice of Porret if it bee given to drinke with good wine of the grape; againſt the ſting of Serpents, and namely, Scorpions: likewiſe ſo taken with an *Hemine of wine, it cureth the paines of the loines or ſmall of the backe. Such as ſpit or reach up bloud, ſuch as be diſeaſed with the Phthiſick or Conſumption of the lungs, ſuch alſo as have been long troubled with the Poſe, the Murre, Catarge, & other Rheumes, find great
B helpe by drinking the juice of Porret, or eating Leekes with their meat. Moreover, Leeks are taken to bee very good either for the Iauniſe or Dropſie. Drinke the ſame with the decoction of husked Barley called Ptiſane, to the quantitie of one Acetable, you ſhall find eaſe for the paines of the raines or kidneies. The ſame meaſure and quantitie beeing taken with Honie, mundifieth the Matrice and naturall parts of women. Men uſe to eat of Porrets or Leekes, when they doubt themſelves to have taken venomous Muſhromes. And a cataplaſm therof cureth green wounds. Porret is a ſollicitour to wantonneſſe and carnall pleaſures: it allaieth thirſtineſſe, & diſpatcheth thoſe fumes that cauſe drunkenneſſe. But it is thought to breed dimneſſe in the eie-ſight: to engender wind and ventoſitie; howbeit, not offenſive to the ſtomacke, for that withall it maketh the bellie laxative. Finally, it ſcoureth the pipes & cleareth the voice. Thus much of Porret in blade,
C or cut Leekes unſet.

The headed Leekes that are bolled and replanted, are of the ſame operation, but more effectuall than the unſet Leekes. The juice thereof given with the pouder either of Gall-nuts, or *Frankincenſe, or els Acacia, cureth thoſe that reject or reach up bloud. *Hippocrates* would have the ſimple juice thereof given, without any thing els for that purpoſe: and he is of opinion, that it will diſopilate the necke of the Matrice and the naturall parts of women; yea, and that they will prove fruitfull and beare children the better, if they uſe to eat Leekes. Being ſtamped and laid to filthie ſores or uncleane ulcers with Honie, it cleanſeth them. Being taken in a broth, made of Ptiſane or husked Barley, it cureth the Cough, ſtaieth the Rheume or Catarrh, that deſtilleth into the chiſt or breaſt-parts: it ſcoureth the lungs and wind-pipe, and healeth their exulcerations
D The like it doth if it be taken raw without bread, three bols or heads of them together ech other day: and in this manner it will cure the patient, although he raught up and ſpit out putrified and corrupt matter. After the ſame manner it cleareth the voice, & it enableth folke to the ſervice of ladie *Venus*, and availeth much to procure ſleepe. If Leeke bols or heads bee ſodden in two waters, that is to ſay, chaunging the water twice, and ſo eaten, they will ſtop the Laske, and ſtay all inveterate Fluxes whatſoever. The pillings or skins of Leeke heads if they bee ſodden, the decoction thereof will chaunge the haire from gray to blacke, if they be waſhed or bathed therewith.

As touching Garlicke, it is ſingular good and of great force for thoſe that chaunge aire, and come to ſtrange waters. The very ſent thereof chaceth Serpents and Scorpions away. And as ſome have reported in their writings, it healeth all bitings and ſtings of venomous beaſts, either
E eaten as meat, taken in drinke, or annointed as a liniment: but principally it hath a ſpeciall propertie againſt the Serpents called Hæmorthoids, namely, if it be firſt eaten, and then caſt up againe by vomit, with wine. Alſo, it is ſoveraine againſt the poyſonous biting of the Mouſe called a Shrew: and no marvell, for why, it is of power to dull and kill the force of the venomous hearb Aconitum, *i.* Libard bane, which by another name men call Pardalianches, becauſe it ſtrangleth or choketh Leopards: yea, it conquereth the ſoporiferous & deadly qualitie of Henbane. The bitings alſo of a mad dog it healeth, if it bee applied upon the hurt or wounded place with him. As for the ſting of Serpents verely, Garlick is exceeding effectuall, if it be taken in drink: but withall, you muſt not forget to make a liniment of it, the hairie ſtrings or beard growing to the head, the skins alſo or tailes and all, wherby it is bunched, tempered all together with Oile, & laid upon
F the greeved place: and thus alſo will it helpe any part of the bodie fretted or galled, yea, though it were riſen up to bliſters. *Hippocrates* moreover was of this opinion, That a ſuffumigation made therewith, fetcheth downe the after-birth of women newly delivered and brought to bed: who uſed alſo with the aſhes of them burnt and reduced together with oile into the forme of a liniment, to annoint the running skalls of the head, and thereby cured and healed them up. Some

give

*Hemina is much about ten ounces.

* Called *Manna Thuris*.

In fico duplici.

give it boiled, others raw, unto them that bee ſhort winded. *Diocles* preſcribeth it with Centaurie G
to them who are in a Dropſie, he giveth it alſo to purge the bellie between, or in two Figges. But
greene Garlicke taken in good wine, together with Coriander, doth the deed more effectually.
Some are wont to miniſter it to thoſe that draw their wind ſhort, being ſtamped & put into milke.
Praxagoras the Phyſician ordained to drinke it with wine, againſt the launiſe: alſo againſt the Iliacke paſſion, in oile and thicke*gruell. And in that ſort hee uſed to annoint the ſwelling kernils,
called the kings evill. In old time the manner was to give raw Garlicke to ſuch as were beſtraught
or out of their wits. But *Diocles* appointed, that it ſhould bee boiled for phranticke perſons.
Certes, if it be bruſed and ſo laid to the throat, or otherwiſe gargled with ſome convenient li-
quour, it will doe much good to them that have the Squinancie. Take three heads or cloves of
Garlicke, beat them well, and together with vinegre applie them to the teeth; they will mightily H
aſſuage the paine. Or doe but make a collution with the broth wherein they were boiled, and hold
it in your mouth, and afterwards put ſome of the Garlicke it ſelfe within the hollow teeth, you
ſhall ſee much eaſe enſue thereupon. The juice of Garlick, together with Gooſe greaſe, is paſſing
good to be dropped into the eares, to aſſuage their paine, and bring the hearing againe. Beeing
taken in drinke, it cleanſeth the head from dandruffe, and killeth lice: ſo doth it alſo, if it be ſtam-
ped and applied to the place with vinegre and nitre. Seeth it in milke, or do but ſtamp it and min-
gle it with ſoft freſh cheeſe, and ſo eat it, you ſhall ſee how it will repreſſe and ſtay Catarrhs and
Rheumes: after which manner it will make them ſpeake cleare that be hoarſe, and have a ruſtie
voice. But let a man who hath the Phthiſick, and is far gone into a Conſumption of the Lungs,
drinke it in Beane broth ordinarily, he ſhall recover or find great eaſe. Generally, Garlick is bet- I
ter, boiled or roſted, than raw: and yet of the twaine, it is not ſo good roſted as ſodden: for in that
order muſt it be taken for to helpe the voice and make a cleare breaſt. Alſo, being boiled in ho-
nied vinegre or Oxymell, and ſo drunke, it driveth out the broad wormes and all other ſuch like
vermine forth of the guts. Beeing taken in a thicke broth or gruell, it cureth the diſeaſe *Tineſ-
mus. Being ſodden to the conſiſtence of an Vnguent, and ſo applied as a frontale to the temples
of the head, it allaieth their paine. Boiled with honie, then ſtamped and reduced to a liniment, it
repreſſeth red pimples. Seeth it with good old ſeame or greaſe, or in milke, it is ſingular for the
Cough. See you one to reach up bloud, or to ſpit filthie matter? Roſt Garlicke under the hote em-
bers, and give it the partie to eat, with equall quantitie of honie. Being taken with ſalt and oile, it
is a ſoveraigne remedie for them that bee burſten or Spaſmaticke, that is to ſay, vexed with the K
Crampe. Applied with the fat or greaſe of an Hog, it cureth all tumours and ſuſpitious impo-
ſtumes. Being emplaſtered with brimſtone and roſin, upon Fiſtulaes or ſuch hollow and blind
ulcers, it draweth out all the filth and corruption that lieth ranckling and feſtering within. But
lay it to a ſore with pitch, you ſhall ſee it fetch out ſpils and ends of broken arrowes ſticking ſtill
within the fleſh. The Leproſie, the running and daungerous*tettar, the red pimples alſo riſing in
the skin, Garlick doth firſt fret and exulcerate: but afterwards, with Origanum, it cureth and hea-
leth the ſame. Yea, the very aſhes of Garlick burnt, and ſo tempered with oile and the pickle [Ga-
rum] that it may take the form of a liniment, doth the like. The wild fire alſo, or ſhingles, that hath
gotten to a place, if it be annointed therewith, will bee extinguiſhed. Bee any place of the bodie
growne blacke and blew by ſtripes or blowes, a liniment made of Garlicke burnt to aſhes & tem- L
pered with honey, will bring the native and freſh colour againe quickly. There is a deepe and
ſettled opinion among men, That if a man or woman do ordinarily take Garlick with meat and
drinke, they ſhall find remedie thereby for the falling ſickneſſe. Alſo, that one head of Garlicke
taken in ſome ſtyptike and harſh raw wine, with Laſerpitium, to the weight of one Obolus, dri-
veth away the Quartane ague for ever. But after another ſort, if it be uſed, to wit, boiled with bru-
ſed Beanes, and ſo eaten ordinarily with meat; there is no Cough ſo tough, no ulcer within the
breaſt ſo foule and filthie, but it will ſtay the one, and cleanſe, yea, and heale the other, ſo as the
patient ſhall recover perfect health. Garlicke maketh folke to ſleepe well, and giveth a good,
freſh, and ruddie colour to the whole bodie. Garlicke ſtamped with greene Coriander, and
drunken with ſtrong wine, encreaſeth the heat of luſt, and provoketh to Letcherie. But as ma- M
ny good properties as Garlicke hath, it is not without ſome bad qualities for them againe. It ma-
keth the eies dim, it breedeth windineſſe & ventoſitie; it hurteth the ſtomack, overliberally taken,
and *cauſeth thirſt. But let me not forget among other vertues which it hath: namely, that if it
be given to Hens, Cocks, and other Pullein, among their corne, it will keepe them from the pip.

As

*i. The wringings and torment of the upper ſmall guts.

Porrigenes, not *prurigenes*, out of *Dioſcor.*

*A great deſire to goe to the ſtoole, with doing little or nothing.

* Called *Mentagra.*

Sacros ignes, called otherwiſe S. *Anthonies* fire. *Eriſypelas.*

* Contrarie to *Galen.*

As for Horſes, Mares, Aſſes, and ſuch like beaſts that cannot ſtale, or be groud and wrong in the bellie: ſtampe Garlicke, and therewith rub the ſhap and naturall parts; it will provoke the one, and eaſe the other.

Chap. VII.

Of wild Lectuce, as well that called Caprina as Eſopus. Of Iſatis and Garden Lectuce.

THe firſt kind of Lectuce that groweth wild of it ſelfe without mans hand, is that which is commonly called Caprina, *i.* Goats Lectuce. This hearbe hath a propertie, that if it bee
B throwne into the ſea, it will preſently kill all the fiſhes that approch neare unto it. The milkie juice of this Lectuce being turned thicke, and ſoone after mixed with vineger, to the weight of two Oboli, and one Cyath of water put thereto, is given with good ſucceſſe to thoſe that have the Dropſie. The ſtalkes and leaves ſtamped, with ſome ſalt ſtrewed among, and ſo applied as a cataplaſme, doe heale up the ſinewes that be cut or wounded. The ſame hearb being bruſed together with vinegre, preſerveth a man from the toothach, if he uſe two mornings every moneth to waſh his mouth with a collution made thereof.

It ſhould ſeeme he meaneth here the *Tithymales*, which be *Lactariæ*.

A ſecond kind there is of wild Lectuce, which the Greekes name Eſopus. The leaves thereof being beaten in a morter and with Barley floure, applied as a pulteſſe, heale all ulcers. This groweth ordinarily in corne fields.

C A third ſort comming up in the woods, is named otherwiſe *Iſatis. The leaves whereof being likewiſe beaten together with Barley-meale or floure aforeſaid, cureth greene wounds.

** Plinie* ſhould ſeeme here to be deceived: for *Iſatis* is the ſame that *Glaſtum, i.* Woad, and the wild thereof indeed is leaved like Lectuce which was the occaſion of his error.

A fourth kind there is beſides of wild Lectuce, named Glaſtum, *i.* Woad, wherewith divers uſe to colour their wooll. It might bee likened to the wild Docke for the leaves, but that they bee more in number, and of a blacker greene withall. This hearbe ſtancheth bloud. It repreſſeth and cureth the fierie and eating tetters, the cankerous and filthie ulcers alſo which run and ſpread over the whole and ſound parts: alſo it diſſolveth ſwellings before they gather to an head, & tend to ſuppuration. The root or leaves thereof bee good againſt S. *Anthonies* fire, applied in a cataplaſme or liniment. It is a ſingular remedie alſo for the ſwelled and puffed ſplene. And thus much for their properties in particular, reſpective to each ſeverall kind. But to ſpeake generally of them
D all that grow wild, they agree all in this, that they bee white; that their ſtem groweth otherwhiles to the height of a cubit; that both it and the leaves bee rough in handeling. Of theſe wild Lectuces, That which hath round and ſhort leaves, ſome there be who call Hieracia; becauſe that Faulcons and ſuch like Haukes are wont to ſcrape and ſcratch this hearbe to get foorth the juice, wherewith they annoint and rub their eies, and thereby recover their ſight, when they perceive it to be darkened or dim. All the ſort of them are full of a white juice: & the ſame of the like vertue as is the juice of Poppies. Ordinarily is this juice gathered in harveſt by inciſion of their ſtalk: put up it is in new earthen pots never occupied, and ſo reſerved for many excellent effects that it hath. For firſt and formoſt, being applied with womans milke, it healeth all maladies which the eies be ſubject unto, as namely, it riddeth away the cloudie webs therin, the cicatrices and ſcarres:
E all filthie ſores with a burnt roofe over them, and principally diſparcleth the miſt and dimneſſe that troubleth the eie-ſight. It is uſually alſo laid with a locke of wooll to the eies, for to repreſſe and ſtay the wateriſh humor that hath found a way thither. The ſame juice, if one drinke it, to the weight of two Obolij, in vinegre and water, is a good purgation. Being taken in wine, it cureth the venomous ſtinging of Serpents. To which purpoſe, the leaves being parched and dried againſt the fire, their tender ſtems alſo being bruſed, are drunke with vinegre. A liniment made of them, is paſſing good againſt the pricking of Scorpions. But peculiarly for the ſting of the venomous ſpiders Phalangia, there muſt be wine and vinegre mixed therewith. Soveraigne defenſatives alſo theſe wild Lectuces be, againſt other poyſons; ſave thoſe that kill by ſtrangling and ſuffocation, or ſuch as have a ſpeciall ſpight to the Bladder: neither are they of any power againſt Ceruſſe
F or white Lead. A cataplaſme made thereof with honey and vinegre, and ſo laid to the bellie, purgeth the rotten humors, and expelleth the wormes thereof bred. Their juice is ſingular good for them that piſſe with paine and difficultie. *Cratevas* preſcribeth to give the weight of two Oboli of the ſaid juice, in one Cyath of wine, to thoſe that bee in a Dropſie. Some there be who draw the juice out of the garden Lectuce alſo for the ſame purpoſe, but not with like effect. The peculiar

proper-

properties of which Lectuces, I have partly written of heretofore; and namely, how they procure sleepe, abate fleshly lust, coole intemperate heats, cleanse and strengthen the stomacke, and finally, encrease bloud. Over and besides, they have other properties not a few, for they resolve and discusse ventosities, they breake wind upward, and make one rift and belch sweet, and finally, helpe digestion, and of themselves cause no cruditie in the stomacke. Certes, I cannot say of any thing else but it, that being eaten, both giveth an edge to appetite, and also dulleth the same: and all according as it is taken, more or lesse. By the same reason also, if a man eat liberally of them, they will make the bellie soluble: if in a meane, they will stay a Laske, and bring the bodie to costiveness. They cut and dissolve the grosse viscositie of slimie fleame: and as some Physicians have written, doe clarifie the Senses. Moreover, if a mans stomacke be quite gone, so that hee neither desireth to receive any thing into it, nor can hold and keepe that which it receiveth, hee shall find notable comfort by eating of garden Lectuce. But for this purpose they must bee taken unwashed, with some sharpe sauce made with vinegre, to the quantitie of a certaine Obolus, yet so, as that the tart and harsh taste thereof bee tempered with some wine cuit or other sweet liquor for to dip into. Moreover, this regard ought to bee had, that if the fleame lying in the stomacke, bee very tough and grosse, the Lectuce would bee eaten with vinegre of Squilla or the sea-Onion, or else with Woormewood wine: and if the Cough bee also busie, then Hyssope-wine would bee mingled withall. In case there bee a flux occasioned by feebleness of the stomacke, then would garden Lectuce bee eaten together with wild Endive or Cichorie: and so are they good also for the hardnesse and swelling in the midriffe and about the heart. G H

White Lectuce eaten in good quantitie, helpeth the infirmities of the Bladder, and agree very well with those who be troubled in their braines, and overcharged with melancholie. *Praxagoras* advised also, That they should bee eaten for to helpe the bloudie flixe. Moreover, if they bee laied presently (in manner of a liniment, with salt) upon a burne or scald, while it is new, and before the place blister, they will fetch out the fire, and doe very much good. They keepe downe and represse cancerous ulcers, that would be running and eating into the flesh, if they bee applied at the beginning with salt petre, and afterwards with wine. Being bruised into a liniment they heale S. *Anthonies* fire, if the place be annointed therewith. If their stalkes or stemmes be stamped with drie grout of Barley meale, and laid too as a cataplasme with cold water, they mitigat the paines that follow dislocations or lims out of joint, they assuage also dolorous crampes and convulsions. Being applied in manner of a pultesse with wine and drie Barley groats, they doe allay the greese of red and angrie wheales. Moreover, they were wont in times past to boile them betweene two platters, and so give them for the disease Cholera, wherein choler is so outrageous, that it purgeth unceasantly both upward and downeward. But for this purpose, there would bee choise made of the fairest and greatest stems, such also as are bitter, for they bee best. Some to the same effect, make a decoction of them in milke, and so minister it unto the patient in a clyster. These stalkes beeing well and throughly boiled, are said to bee verie wholesome for the stomacke also: like as, for to procure sleepe, the garden Lectuce is thought most effectuall, namely, that which is bitter and yeeldeth store of milke, which heretofore wee have tearmed Meconis. This milke Physicians prescribe with very good successe for to clarifie the eie-sight, namely, if it be mingled with womans milke, and the fore-head annointed therewith in good season and betimes. After the same manner it helpeth the infirmities and diseases of the eies, proceeding from cold causes. Other vertues and commendable properties besides I find in Lectuce, of straunge and wonderfull operations. And namely, that it cureth the diseases of the breast, as well as Sotherne-wood dooth, if it bee taken with the best honey of Athens. *Item*, That if any women doe eat thereof, they shall have their monthly sicknesse come orderly. Also, that the seed of garden Lectuce is given to verie great purpose against the pricke or sting of any venomous Scorpion. Moreover, that if the seed bee stamped and taken in wine, it secureth one from the imaginarie fansies of *Venus* delights, in sleepe, and the pollutions also that thereof doe ensue. Finally, that certaine waters which use to entoxicat and trouble the braine, shall never hurt them that eat any Lectuce. Howbeit, some are of opinion, That the over-much use of Lectuce at meat enfeebleth the eies, and empaireth their cleare sight. I K L M

CHAP.

Chap. VIII.

Of Beets and their ſundrie kinds. Of Endive. Diverſe ſorts of Cichorie. Of garden Endive, and two kinds thereof.

THe Beets of both ſorts are not without their medicinable vertues: for bee it the white or the blacke, if one take the root thereof freſh and new out of the ground, wet it throughly, and ſoke it well in water, and then carie it about him hanging by a ſtring or lace, it is a ſoveraigne preſervative againſt the biting of Serpents. The white Beet boiled and eaten with raw Garlicke, expelleth the broad wormes in the bellie. The roots of the black, ſodden after the ſame manner in water, rid away the dandruffe or unſeemely skales within the haire of head or beard. And indeed generally for any uſe, the blacke Beet is more effectuall than the white. The juice thereof is ſingular good for an old and ſetled head ach. For the dizzineſſe or ſwimming in the head. Alſo, it riddeth away the ſinging and ringing in the eares, if it be dropped into them. It procureth urine: Being injected by a clyſter, it cureth the bloudie Flixe: it helpeth alſo the launise. Moreover, the ſaid juice appeaſeth the intollerable paine of tooth-ach, if the teeth be rubbed or annointed therewith. Singular it is againſt the ſtinging of Serpents: but then it muſt be drawne from the root onely. And make a decoction of the ſaid root, it helpeth kibed heeles. As for the juice of the white Beets, it ſtaieth the Rheume or watereſh humour that falleth into the eies, if the fore head be therewith annointed. And put but a little Allum thereto, it is an excellent remedie againſt S. *Anthonies* fire. White Beets only ſtamped, although there come no oile unto them, healeth any burne or ſcalding, if the place be therwith annointed. Moreover, againſt the breaking out into red and angrie pimples, the ſame is very good. But ſeeth Beets, and make thereof a liniment, it repreſſeth the ulcers that run and ſpread abroad. The ſame being raw, rubbed upon the bare places, where the haire is ſhed, recovereth haire, yea, and ſtaieth the running skalls of the head. The juice of theſe Beets tempered with honey, and ſnuffed up into the head by the noſthrils, cleanſeth the braine. There is a certaine meat made with * Beets and Lentils boiled together, which commonly is eaten with vinegre for to make the bodie laxative. The ſame being overſodden to a thicke conſiſtence, ſtaieth both the turning of the ſtomacke, and flux of the bellie.

* πυτιλοφάκη.

There is a kind of wild Beet, which ſome name Limonion, others Neuroides: it hath leaves much leſſe and tenderer than the other, howbeit, growing thicker: and riſeth up many times with eleven ſtalkes. The leaves of this Beet are very good for burnes and skalds: they reſtraine and ſtaie all Fluxes by drop meale, which breed the Gout. The ſeed being taken to the quantitie of one Acetabulum, cureth the bloudie Flix, & healeth the ulcer of the guts that cauſeth the ſame. Some ſay, that if this Beet be ſodden in water, the decoction will ſcoure and take out any ſtaine in cloths, even the very yron-mole: likewiſe it will waſh away any ſpots in parchment.

Now as touching Endive or garden Cichorie, furniſhed alſo it is with many properties effectuall in Phyſicke. The juice thereof mingled with oile Roſat and vinegre, allaieth the paine in the head. The ſame if it be drunke with wine, is good for the liver and the bladder. Alſo, if it bee laid to the eies, it ſtoppeth the humour that hath taken a courſe thither. The wild Cichorie that groweth wandering here and there abroad, ſome of our Latin writers name * Ambugia. In Ægypt they call the wild Endive, Cichoreum; & the tame garden Endive, Seris: the which indeed is leſſe than the other, fuller alſo of ribs and veines. As for the wild, which is Cichorie, it hath a cooling nature, being eaten as meat: but applied in forme of a liniment, it is good againſt the collection of humors that engender impoſtumes. The juice of it ſodden, dooth looſen the bellie. Wholeſome it is for the Liver, the Kidneies, and the Stomacke. Likewiſe, if it bee boiled in vinegre, it reſolveth the painefull torments occaſioned by the ſtopping or difficultie of urine, and openeth paſſage to make water at eaſe. Moreover, if the juice or decoction thereof bee drunke with honied wine, it cureth the laundiſe, ſo it be without a fever. It is comfortable alſo & helpefull to the Bladder. Boiled in water, it is ſo powerfull to bring downe womens tearmes, that it is of force to ſend out the child, if it be dead in the mothers bellie. The Magicians ſay moreover, that whoſoever annoint their bodies all over with the juice of this hearbe & oile together, they ſhall be right amiable, and win the grace and favour of all men, ſo as they ſhall the more eaſily obtain whatſoever their heart ſtands unto. And verily, for that it is ſo ſingular and wholeſome to mans bodie, ſome give it the name of χρησὸν, others of πάνακρατιον.

* or rather *Ambubeia.*

As

As for another wild kind, ſome call it * Hedypnois, and that hath a broader leaſe than the reſt. Being ſodden, it is aſtrictive and will ſtrengthen a weake ſtomacke: and eaten raw, it bindeth the belly and ſtayeth the laske. Holeſome it is for ſuch as have the bloudie flix, the rather if it be taken with Lentils. In ſumme, as well raw as ſodden, both kinds the one and the other, help thoſe that have cramps and ruptures. Comfortable it is likewiſe to ſuch as upon occaſion of debilitie or ſickneſſe, have their nature or ſeed run from them againſt their wills. G

* For that being eaten with meat, it maketh the breth ſweet.

Touching Cichorie of the garden, which is very like unto the Lectuce, there be two kinds thereof; but the greene that ſeemeth to bee of a wild and ſavage nature, is the better: of a more brown and duskiſh colour it is, and a Summer hearb onely. The other indeed is whiter and continueth all winter, howbeit worſe of the twaine: and yet both the one and the other, are right comfortable to the ſtomacke, eſpecially when it is overcharged with wateriſh humors. Beeing eaten in a ſalad with vinegre at meat, they refreſh and coole mightily: ſo doe they alſo in forme of a liniment, and by that means reſolve other humors beſides thoſe in the ſtomacke. Generally the roots of all wild Cichories being ſodden with barley grouts to a gruell, and ſo ſupped off, do comfort a weake ſtomack. Being reduced into a liniment, and applied to the region of the heart above the left pap, with vinegre, they cure the trembling thereof, and the faint cold ſweats that breake out upon weakneſſe. All the ſort of theſe Cichories as well tame as wild, beeing taken in broth each other day, be good for goutie perſons, for ſuch alſo as reach and caſt up bloud, ſhed their ſperme or have the running of the reins. Howbeit *Petronius Diodotus* in his booke entituled * Contradictions, utterly condemned the garden Endive Seris, and alledged many reaſons and arguments to confirme that poſition of his: howbeit the whole colledge of all Phyſicians beſides, ſtand againſt him. H

* *Antilegomena*, ſome read ἀπολογούμενα, i. ſhifte gatherings. I

Chap. IX.

Of Garden Coleworts, Lapſana, Sea Coleworts, or Soldanella: of Squilla: of other bulbous roots, as the Potatoes: and of Bulbium.

THe commendable proprieties of the Colewort are ſo many, that it were a long labour to diſcipher them all, conſidering that both *Chryſippus* and *Dieuches*, two Phyſicians, have compiled each of them a booke particularly of this hearb, wherein they have collected their vertues, as they be appropriat and reſpective to every part of mans bodie; yea and before all others, *Pythagoras*, and after him *Cato*, have as amply ſet out the praiſes thereof. As for *Catoes* opinion and judgement of the ſaid hearb, I am the more willing in this place to ſet downe and follow diligently, becauſe it might be knowne what ſimples and what drugs they were which the old Romans uſed for their Phyſicke * ſix hundred yeeres after the foundation of the cittie. The Greeke writers of greateſt antiquitie, have made three kinds of Coleworts; to wit, the criſped or ruffed Cole, which they called Selinas or Selinoides, for the reſemblance that the leaves have to Parſley: Theſe Coleworts bee good for the ſtomacke, and gently looſen the belly. The ſecond ſort is named in Greeke * Lea, with broad leaves ſpringing forth from a great ſtem: wherupon ſome have given it the name of * Caulodes: Theſe woorts are to no uſe at all for Phyſicke. The third is properly called by the name of Crambe; very well ſtored with leaves this is, but thoſe are ſmaller than the reſt, ſimple alſo & plain: bitterer beſides this Cole is in compariſon of others, but moſt effectuall in Phyſicke. Howbeit *Cato* preferreth before all, that which is criſpe and frizled: next unto it, the ſmooth Cole, with the large leaſe & big ſtalke. He commendeth the Colewoort (ſtamped raw togither with vinegre, honey, Coriander, Rue, Mints, and the root of Laſer) to be ſingular good for the head-ach, the miſt and dimneſſe of the eyes, the appearance of ſparkling motes before them, the ſtomack and precordiall parts; if a man take faſting two Acetables of this compoſition. And hee ſaith moreover, that this confection is ſo ſoveraigne, that they who doe but bray & beat the ingredients, ſhall ſenſibly find themſelves mightily comforted and fortified thereby. And he concludeth withall, that Coleworts may be either ſtamped togither with the foreſaid *ſpecies*, and ſo taken in a ſupping; or els be eaten, firſt dipped and ſoked in the forenamed liquor: as alſo that a liniment made of them, togither with Rue, a little Coriander, ſome few corns of ſalt, and barley meale; is ſoveraigne for to aſſuage the paines of any gout, be it in feet, hands, or any other joynt whatſoever. Moreover, that a decoction made thereof, doth wonderfully comfort and fortifie the ſinews, yea and mitigat the arthriticall griefes or joynt-ach, K

* For about that time *Cato* lived.

* *i.* Smooth and plaine.
* *i.* The ſtemmie Cole. L M

A if the parts be tormented therewith. Over and beſides, a fomentation made therewith, is ſingular for all freſh wounds, old ulcers, yea and cankers, which could not poſſibly be repreſſed or healed by any other medicines: but he appointeth firſt that they be bathed in hot water, and then a cataplaſme of the ſaid woorts to be laid upon the afflicted place, and the ſame to bee refreſhed twice a day. By which manner of cure, he ſaith, that fiſtulous ſores may be healed, diſlocations ſet ſtreight, ſwellings and impoſtumes drawn outward to an head; or otherwiſe where need is, diſcuſſed and reſolved, before they tend to ſuppuration. He addeth moreover and ſaith, That whoſoever eat good ſtore of ſodden Coleworts, togither with oile and ſalt faſting in a morning, ſhall fall to ſleepe again in the night if they were before overcharged with watching; and in their ſleep ſhall not be troubled with dreams or other unquiet fanſies and imaginations. Furthermore hee
B affirmeth, That worts twice boiled, are excellent good for the torments and wrings of the belly, ſo there be joyned to the ſecond decoction, oyle, ſalt, cumin, and barley groats: and thus beeing eaten without bread, they are the better. Among other effects that theſe Colewoorts doe worke, this is not to be forgotten, That they purge chollericke humours, beeing taken with ſweet groſſe wine. More than that, he avoucheth; That if his urine who uſe to feed of Coleworts, be reſerved, it is ſingular good for the ſinews, if the grieved part be bathed therein after it is made hot againe. But becauſe you ſhould fully underſtand his meaning, I care not much to ſet downe his verie words for to expreſſe the ſame the better. If (quoth hee) you waſh little children with the ſaid urine prepared in manner aforeſaid, they will never be weake and feeble in their lims. Hee adviſeth moreover, to drop the juice of Colewoorts warme into the ears with wine, and aſſureth us
C that it is good for them that be hard of hearing. Finally, that ringworms, tettars, itch, and drie skabs (ſuch as be not exulcerat) are healed thereby.

Now concerning the opinion of the Greeks alſo, as touching Coleworts, I thinke it meet to ſet them down for *Catoes* ſake, I mean touching thoſe points onely that he overpaſſed and omitted. Firſt and foremoſt therefore, the Greeks hold, that the Colewort not being throughly ſodden, purgeth choller and keepes the bodie ſoluble; howbeit twice ſodden, it bindeth the bellie. *Item*, That it is contrarie to wine, and a verie enemie to vines. And more particularly, if it be taken faſting, or in the beginning of a meale before other meat, it preſerveth a man from drunkenneſſe; and eaten after meat when a man is drunken indeed, it riddeth away the fumoſities in
D the braine, and bringeth him to be ſober. Alſo, that it is a meat appropriat to the eyes, and cleareth the ſight very much; inſomuch as the juice of it raw is paſſing ſoveraigne for that purpoſe, in caſe it be mingled with the pure Atticke honey into an eye-ſalve, and therewith the corners of the eyes be but touched onely. Moreover, that it is paſſing light of digeſtion, & clarifieth all the ſenſes, if it bee ordinarily eaten. *Eraſiſtratus* and all his ſchoole doth ring and reſound againe with one voice and open mouth, That there is nothing in the world better for the ſtomacke, nothing more holeſome for the ſinews; and therfore with one accord they preſcribe the uſe therof, for thoſe that have the palſie or reſolution of the nerves; for as many as be trobled with the trembling and ſhaking of their lims; to ſuch alſo as reach and caſt up bloud. *Hippocrates* giveth counſell to them that be afflicted with the bloudie flix or exulceration of the guts; to thoſe likewiſe who be ſubject to the flux proceeding from the weakneſſe of the ſtomacke, for to eat it twiſe ſod-
E den with ſalt. Alſo he preſcribeth it in the cure of Tineſmos [which is a provocation or extraordinarie appetite to ſeege, without doing any thing;] and of the paine in the backe or reines. And he is of this judgement, That women in childbed ſhall be good nources and have plentie of milke, if they eat of Cabbages or Coleworts; yea and women in generall, by feeding thereupon, ſhall ſee their monethly tearmes duly. As for the Cole it ſelfe, if it be chewed raw, it is (by his ſaying) of force to expell a dead infant in the wombe. *Apollodorus* holdeth reſolutely, That either the ſeed or juice thereof taken in drinke, is a ſingular remedie for them who ſuſpect that they have eaten venomous muſhroms. *Philiſtion* giveth the juice thereof in Goats milke, togither with ſalt and honey, unto ſuch as have a cricke or crampe drawing their necks backward, that they are not able to turne their heads. I find moreover, that by eating Coleworts at meat
F ordinarily, and by drinking the decoction thereof, many have been delivered from the gout. It is an uſuall medicine and approoved by experience, to give it with ſalt for the fainting ſweats and trembling of the heart; as alſo for the falling evill. Such as be troubled with the ſplene, find much eaſe thereby, if they continue drinking the juice therof in white wine at their meales fortie daies togither: like as, thoſe that bee ſped with the yellow Iauniſe, or in fits of phrenſie, bee cured with

gargling and drinking the juice of Cole-roots raw. But againſt the Hocquet or Yex, there is a notable medecine made with it, togither with Coriander, Dill, Honey, Pepper, and Vinegre. If the pitch of the ſtomacke bee annointed therewith, the Patient ſhall evidently perceive, that it will diſſolve the wind and puffing ventoſities therein. Alſo, the very water of the decoction incorporat togither with Barley meale, unto a liniment, is ſingular good for the ſtinging of Serpents, and mundifieth filthie old ulcers: to which purpoſe alſo, ſerveth the juice thereof, applied with vinegre and Fænigreeke. After the ſame manner, ſome make a cataplaſme, and apply it to goutie joynts. The bloudy falls and bliſtring chilblanes, and generally all humours that over-run the bodie and fret the skin, are allaied by the application aforeſaid. In like manner, the ſodaine miſts and dimneſſe which commeth over the eyeſight, is diſcuſſed and diſpatched cleane, in caſe one doe no more but chaw this hearb in vinegre. A liniment made with it and * brimſtone togither, helpeth the black and blew ſpots of dead bruiſed bloud lying under the skin, and reduceth them to their owne colour. But if round alume and vinegre be joyned therewith, it cureth the white leproſie and drie skab [called of ſome S. *Magnus* evill.] And in that manner prepared, it keepeth the haire faſt that is readie to ſhed. *Epicharmus* ſaith, That this hearb is ſoveraigne good to be emplaſtred upon thoſe tumors and ſwellings that bee incident to the privie members, and the rather, if the ſaid emplaſtre be made with beane meale. The ſame being applied with Rue, is good for convulſions or cramps. Moreover, there is a medicine preſcribed to bee made of Colewoorts and Rue ſeed, againſt the extreame heat of fevers ardent, as alſo for the defects and infirmities of the ſtomacke, and to ſend out the after-birth in women newly laid. The powder of Colewort leaves drie, doth expell and evacuat one way or other, the venome left behind by the biting of the hardie ſhrew-mouſe. Of all kinds of Coleworts, the ſweeteſt and moſt pleaſant to the taſt, is the * Col-florie, although it be counted good for nothing in Phyſicke, and beſides unholeſome, as being hard of digeſtion and an enemie to the kidnies. Over & beſides, I muſt not forget this one thing of Coleworts, That the broth or decoction thereof (ſo highly praiſed for many good uſes that it is put unto) if it be poured on the ground, hath but a ſtinking ſmell with it. Wort-ſtocks beeing dried and burnt into aſhes, is thought to be a cauſticke medecine or potentiall cauterie. The ſame aſhes mingled with old greaſe and reduced into a cataplaſme, helpeth the paine of the Sciatica: but with Laſer and vinegre, it is a depilatorie, that is to ſay, keepeth the haire from growing againe where it was once fetched up by the roots. The ſaid Cole-ſtocke aſhes ſet over the fire untill it ſiver only, or have one walme at the moſt, and ſo drunke with oile, or otherwiſe ſodden, and the decoction taken alone without oile, is good for Spaſmes and cramps, for inward bruiſes, and for ſuch as are falne from ſome high place. Loe, what a number of praiſe-worthie vertues are recounted of Coleworts! And is there (I pray you) no fault to be found with them? are they blameleſſe? ywis no: For even thoſe writers who extolled them ſo highly, note them for making a ſtinking breath, and for hurting the teeth and gums: inſomuch as in Ægypt, they be in ſo bad a name for their bitterneſſe & unpleaſant taſt, that no man knoweth how to eat them. But to come againe unto *Cato*, hee commendeth the effects of the wild or wandring Colewoort infinitly above the reſt; inſomuch as hee affirmeth, that the powder of it dried, being gathered and incorporat with ſome convenient liquor into the forme of a pomander, or otherwiſe ſtrewed upon any poſie or noſegay, ſo as it may be received and drawn up into the head by the noſthrils, cureth the * filthie ulcers growing therein, and the ſtinking ſmell that commeth from them. This Colewort, others call Petræa, and this is that which of all the reſt is moſt adverſe and the greateſt enemie to wine; this is it that the vine (by a ſecret Antipathie in nature) doth eſpecially avoid, if it have roome to decline from it: but in caſe ſhe cannot ſhift from it, ſhee dieth for very griefe. This plant hath the leaves growing two by two togither, and thoſe ſmall, round, ſmooth, and liker indeed to the young plants of * Beets than to other Coleworts; whiter alſo it is, and more rougher clad with a moſſie downe, than is the garden Colewort. *Chryſippus* writeth, That it is a ſoveraigne medicine for flatuoſities, and ſuch as be oppreſſed with melancholly: that it is a ſingular ſalve for freſh wounds, beeing applied with honey; but with this charge, That the plaſter be not taken off in ſeven daies. Alſo, if it bee ſtamped and applied with water, it is an excellent cataplaſme for the Kings evill, & fiſtulous inward ulcers. Other Chirurgians and Phyſicians do affirme, that it repreſſeth running and corroſive ſores which eat into the fleſh, ſuch as the Greekes name Nomus. *Item*, that it doth extenuat and reſolve all excreſcence of proud, ranke, or dead fleſh: yea and it doth incarnat, heale up, and skin very faire

without

*Cum Sulphure illita.

*Cyma.

* Some call the *Polypi*.

* *Oleris.*

A without skar, by their saying. Moreover, if it bee chewed, or the juice thereof gargarized with honey, so that the hearb were sodden before, it cureth the sores in the mouth called Cankers; as also the mumps and inflammation of the kernels in the throat, called Amygdales or Almonds. Semblably, if a man take two parts of this hearbe, with twaine of alume, and togither with vinegre make a liniment thereof, it will cleanse the inveterat drie skab, and the mortified leprosie. *Epicharmus* is of opinion, That for the biting of a mad dog, a man need doe no more but lay to the sore place a cataplasme of this herb alone: but surer it were (saith he) and more effectuall, if Laser and strong sharpe vinegre were joyned thereto. He addeth moreover and saith, That if it be given to dogs with some peece of flesh, it will kill them. And yet the seed being parched, is a remedie against the sting of Serpents, and a countrepoison to venomous mushroms and bulls
B bloud. The leaves boiled and given with meat, or otherwise raw and made into a liniment, togigither with brimstone and nitre, helpe those that be diseased in the splene. The same liniment mollifieth the hard swellings of womens breasts. The ashes of the root being burnt, cure the Vvula or swelling of the wezill in the throat, if it be but touched therewith. Also a liniment therof with hony applied to the inflamed kernels behind the ears, represseth them; yea and healeth the stinging of Serpents. I have not yet done with the Colewort, and the vertues thereof; but one instance more I will give you to proove the woonderfull force and effect that it worketh: If any brasse pot, caudron, or such like vessell, wherein we use to seeth water over the fire, have gathered in continuance of time, a thicke fur or crust baked within, such as by no washing or scouring can be rid away, be the same never so hard, deepe setled, and inveterat; boile but a Cabbage or
C Colewort in it, and the same will pill and go from the pot sides.

Among wild Woorts, we must place Lapsana, a plant growing to the heigth of a cubit, bearing a furred or hairie leafe, like for all the world to the Navew, but that the floure is whiter. This hearb is commonly sodden and eaten in pottage; and so taken, it moderatly looseneth the belly.

The Sea Colewort [otherwise named Soldanella] of all others purgeth most forcibly: in regard of which acrimonie that it hath to stir the belly, cooks use to seeth it with fat meat, and yet is it most contrarie to the stomacke.

Touching Squills or Sea-onions, Physicians hold, that the white is the male, and the blacke the female: but the whitest of them be ever best and of most use. The manner of preparing and dressing them, is after this manner: First, the drie tunicles or skins being pilled off, the rest which
D is quicke and fresh underneath, must be cut into slices, and so enfiled upon a thread along, with a pretie distance between every one, and hanged up to drie: afterwards, when the morcels be sufficiently dried, they are to be put (hanging still as they did by a string) into a barrell or vessell of the strongest and quickest vinegre that can bee gotten, and therein they must hang, so as they touch no part of the said vessell: But this would be gone in hand with 48 daies before the Summer Solstice. Which done, the barrell of vinegre beforesaid being well luted and stopped close with plastre, must bee set under a roofe of tyles, to receive the heat of the Sun, all the day long from morning to night. Now when it hath been thus sunned so many daies, as are before named, the vessell is remooved from under the case of tiles, the Squilla taken forth, and the vinegre poured out into another vessell. This vinegre clarifieth their eye-sight who use it: comfortable it is
E to the stomacke and sides, and assuageth their paines if it be taken in small quantitie once in two daies: for if a man should drinke over liberally of it, so forcible it is that it would take away his breath, and cause him to seeme dead for the time. Squilla chewed alone by it selfe, is holesome for the gums and teeth. Being drunke with vinegre and hony, it chaseth out of the belly the long flat wormes, and all other such like vermin. If it bee but held under the tongue while it is greene and fresh, it allaieth thirstinesse in the dropsie, and causeth that the Patient shall desire no drinke. The boiling of Squilla or the Sea-onion, is after many sorts: for some, after they have either well luted, or els greased it all over with fat, put it into a pot of earth, and then set it into an oven or furnace to be baked. Others slice it into gobbets, and so seeth it between two platters. Some take it greene, and drie it, then they cut it into pieces and boile it in vinegre; and being thus used
F and prepared, apply it to the places which be stung with Serpents. Others again rost it first in the embres, and after they have cleansed it from the utmost pilling, take the best of it onely in the mids, and seeth the same againe in water. Being thus baked and sod both, it serveth to bee given in a dropsie. And if it be drunke to the quantitie of three Oboles with honey and vinegre, it provoketh urine with ease. In like manner, this composition is good for those that be troubled with

the ſplene, or have weake and feeble ſtomacks, or bee troubled with gnawing and paine there; G
ſuch alſo as cannot hold their meat, but it will flote above and come up again: provided alwaies, that there bee no ulcer within the bodie. Moreover, it is excellent good for the wringing in the guts, the jauniſe, the old cough, with ſhortneſſe of wind. The leaves emplaſtred, reſolve the wens or ſwelling kernels in the necke, commonly called the Kings evill, but they muſt lie foure daies before they be remooved. Beeing ſodden in oile and reduced to a liniment, and ſo applied, it mundifieth the skurfe or dandruffe in the head, the running ſcalls likewiſe that are bred there. It is uſually alſo (boiled up with honey into a certaine confection) taken with meat for to helpe digeſtion; and in that ſort it purgeth alſo the entrails. Sodden in oile and tempered with roſin, it healeth the chaps and clifts in the feet. The ſeed of Squilla emplaſtred with hony upon the reins of the backe or the loins, eaſeth the paine. *Pythagoras* was of opinion, and ſo reported, That if H
the Squilla or Sea-onion were hanged up in the entrie of any dore, it kept out all charmes, enchantments, and ſorceries. And thus much of Squilla.

Moreover, the plants called Bulbes, beeing applied in forme of a liniment with brimſtone and vinegre, doe cure the wounds of the viſage: and ſtamped by themſelves alone, and ſo laid too, they help the contraction or ſhrinking of ſinews: and if there be wine added thereto, it clenſeth the dandruffe in head, beard, and eyebrowes: but applied with honey, it cureth the biting of mad doggs: howbeit *Eratoſthenes* taketh pitch in ſtead of honey for the ſaid purpoſe: who writeth beſides, That a cataplaſme of them and honey togither, ſtaunceth blood in a greene wound: but others joyne Coriander and corne meale to the reſt, properly for bleeding at the noſe. *Theodorus* cureth wild tettars and ringwormes therewith, being applyed with vinegre: and I
with ſtypticke harſh wine, or an egg, he uſeth it for the breaking out in the head. Moreover, a liniment made of Bulbs, he applyeth about the rheumaticke humors that fall to the eyes, and by that means cureth thoſe that be bleere-eyed. Semblably, the red of this kind eſpecially, reduced into a liniment, and firſt incorporat with honey and nitre, taketh away all the ſpots and blemiſhes that disfigure the face, if they bee annointed therewith in the Sun: but with wine and Cucumber ſodden, they rid away alſo the red pimples. They bee wonderfull good of themſelves alone, for greene wounds; or with honyed wine (according to the practiſe of *Damion*) ſo they be not remooved in five daies: and he was wont therewith to cure cracked ears alſo, and the flatuous flegmaticke tumors of the cods. Others there bee, who apply them with meale mingled among, to aſſuage the paine of the gout. Sodden in wine, and ſo applied as a liniment to the belly, they K
mollifie the hardneſſe in the precordiall parts & midriffe: and for the bloudie flix a drinke made thereof, togither with raine water and wine, is a ſingular remedie. Beeing taken in pills as big as beans, with Silphium, they are ſoveraigne for the contraction of nerves or inward cramps within the bodie. Stamped into a liniment, they reſtraine immoderat ſweats that be diaphoreticall. Comfortable they bee to the nerves, and therefore they are preſcribed and given, in caſe of the palſie. Thoſe with the red roots beeing made into a cataplaſme with ſalt and honey, doe ſpeedily cure the diſlocations of the feet that be out of joynt. The Bulbs of Megara eſpecially, doe provoke luſt. As for thoſe that be called Hortenſij, taken with cuit wine or Baſtard, make ſpeedie deliverance of the child out of the mothers bellie. The wild Bulbs brought into the forme of pills with Laſerpitium, and ſo ſwallowed downe, doe heale inward wounds and other maladies of the L
entrails. The ſeed of the garden Bulbs in wine, is a good potion againſt the ſting of the Spiders called Phalangia: and the roots with vinegre ſerve for a liniment againſt the ſtings of other Serpents. The auncient Phyſicians in times paſt, were woont to give the ſeed in drinke to them that were out of their wits. The floure of theſe Bulbs being bruiſed into a cataplaſme, taketh away the red dapled ſpots in their legs who have ſit neare the fire and burnt their ſhins. But *Diocles* is of opinion, that all theſe Bulbous plants doe dim the eyeſight: who ſaith moreover, That they are not ſo good boiled as roſted, and yet be they all (ſaith hee) hard of digeſtion more or leſſe, according to the nature of each one that eateth them.

There is an hearb which the Greekes call Bulbine, with a red bulbous root, and leaves reſembling Porret: of which there is a ſingular good ſalve made for to heale greene wounds, but none M
elſe. To conclude, as touching the Bulbe called Vomitorius (of the effect that it hath to provoke vomit) it hath blackiſh leaves, and thoſe longer than the reſt.

CHAP.

A

Chap. x.

Of Garden Sperages, and the wild Sperage Corruda: of Lybicum and Hormenium.

OF all Garden hearbs, the Sperages are (by report) the beſt meat to bee eaten, and agree paſſing well with the ſtomacke: and verely beeing taken with Cumin, they diſſolve the ventoſities in the ſtomacke, and diſpatch the wind cholique, and withall they cleare the ſight paſſing well. Kindly doe they mollifie the belly and keepe it ſoluble. If they be ſodden in wa-
B ter, and a little wine put thereto in the boiling, and ſo given to drinke, they are very good for the paine of the breaſt and the backbone; for the diſeaſes alſo within the guts. If one take the weight of three Oboli of the ſeed, and as much of Cumin, and ſo drinke it in ſome convenient liquor, he ſhall find a ſingular remedie for the paine of the reins, haunch, and loines. Garden Sperages ſollicit unto the game of love, and procure good deliverance of urine; for which they had no fellow, but for feare that they will fret and exulcerat the bladder. Moſt Phyſicians doe highly commend their roots bruſed and taken in white wine, for to expell the ſtone and gravell; as alſo, to allay the pains of the reins, flanks, and loins. Some there be, who give to drinke in ſome ſweet wine the ſaid root, for the grievous pains of the matrice: and the ſame being well and throughly boiled in vinegre, is a ſoveraigne remedie for the leproſie, to as many as will uſe to drink the ſaid
C decoction. If a man bee annointed with Aſparagus or Garden Sperage, ſtamped togither with oile and ſo made into a liniment, there will not (by report) a Bee come neare for to ſting him.

The wild Sperage, ſome name it Corruda, others Lybicum, but the Atheniens call it Hormenium: this hearb is more effectuall in all thoſe matters above rehearſed than the former, and the whiter that it is, the greater force it hath. The jaundiſe it doth diſſipat and drive away. When it is ſodden in water, the decoction thereof to the quantitie of a * wine pint or ſomewhat leſſe, is * *Hemina.*
uſually preſcribed to them that deſire to performe the act of generation luſtily. For the ſame purpoſe alſo, the ſeed thereof and Dill, of each three Oboli, is counted very good beeing taken in drinke. The juice thereof boiled, is given againſt the ſtinging of Serpents. The root of it and Fennell togither, is thought to be moſt ſingular and of greateſt efficacie in that caſe. For piſſing bloud, *Chryſippus* preſcribeth to give in two cyaths of wine, for five daies togither, three Oboli
D of the ſeed of Aſparagus, Parſley, and Cumin: but hee ſaith withall, That this medecine is nothing good for the dropſie, notwithſtanding that it is diureticall and provoketh urine. Alſo that it is adverſe and contrarie to the delights of *Venus*, yea and to the bladder, unleſſe the ſame ingredients be ſodden; and yet will that decoction kill dogs if it be given unto them. To conclude, the juice drawne out of the root thereof, being firſt boiled, and ſo held in the mouth, is good for the teeth.

Chap. xi.

Of Parſley, wild Ach, of Smallach, and Ach of the mountains.

E PArſley is in great requeſt, and no man lightly there is but loveth it: for nothing is there more ordinary, than to ſee large branches of Parſley good ſtore, ſwimming in their potage: and commonly you have not a ſalad or ſawce ſerved to the bourd, you ſee not a peece of meat farced or ſeaſoned, but Parſley carrieth therein a great ſtroke, and contenteth every bodie. Over and beſides, if it be applied as a liniment, togither with hony unto the eyes, ſo that they be fomented alſo ever and anon with the hot juice of Parſley boiled, it is a ſingular remedie for the humors diſtilling thither. Alſo, if it bee but ſtamped by it ſelfe alone, or els with bread or barley groats, it wonderfully helpeth the defluxion falling upon any other part, if the ſame be laid upon the place afflicted in manner of a cataplaſme. Moreover, if a man perceive that the fiſh in any pond or ſtew do miſlike and grow ſickly, it is a common practiſe to give them green Parſley for to ſcoure and refreſh them. Howbeit, for all that Parſley is ſo good, there is not an hearb growing
F upon the face of the earth, that learned men varie and diſagree in opinion more about, than they doe in it; & yet they hold all, that there is a diſtinct difference therin by the ſex: for of the Parſley there is both male & female; mary which is the one and which the other, they accord not. *Chryſippus* ſaith, That the female hath more criſpe and curled leaves than the male, and thoſe boiſtrous and hard; that the ſtalk is thick, and the taſt of the herb biting & hot. *Dionyſius* deſcribeth it

to be more blackiſh, having a more ſtubbed & ſhort root, & that it is apt to breed little worms. Both of them jumpe in this, that it is not to be admitted to the table, nay, they forbid to eat of it at all, making a matter of conſcience once to touch it as a meat: and why ſo? becauſe, forſooth, it is one of the viands ordained to bee ſerved up at funerall feaſts. Over and beſides, Perſeley is thought to be an enemie to the eies, and to trouble the ſight. Alſo that the ſtem of the female engendreth grubs & ſuch like wormes: and ſo, whoſoever eateth therof, man or woman ſhall therby become barren. Moreover, they affirm, That if women newly delivered, or ſuch as nurce children, do eat of Parſely, the babes that ſuck and draw their breaſts, ſhall be ſubject to the falling ſicknes. And yet of the twain, the male is leſſe hurtfull: which is the very reaſon, that it is not condemned among the forbidden hearbs and ſuch as be held unlawfull to be eaten. Perſely being laied as a cataplaſme to womens breaſts, doth mollifie their hardneſſe, and breake the kernils. It giveth a pleaſant taſt to any water wherein it is ſodden. The juice of this hearb, and eſpecially of the root being taken in wine, doth mitigate the paines in the loines and flankes: and being dropped into the eares, cureth the hardneſſe of hearing. The ſeed of Perſely moveth urine, draweth down womens floures, and fetcheth away the after-birth. Seeth the ſaid ſeed, and with the decoction bath the blacke and blew markes remaining after ſtripes or drie blowes, it will bring them to their own colour againe. The ſame being laid as a liniment with the gleire or white of an egge unto the reines of the backe, or beeing ſodden in water, and the broth drunken, eaſeth their paines and ſtrengtheneth them. Being bruſed & uſed in cold water by way of a collution, it cureth the cankers or ulcers in the mouth. The ſeed drunk with wine, breaketh the ſtone of the Bladder: So doth the root of it alſo if it be given in old wine. Alſo the ſaid ſeed in white wine cureth the Iaunife.

As touching our wild Ach, which we call in Latine* Apiaſtrum, *Hyginus* verily nameth it Meliſſophyllon. A venomous hearbe this is in Sardinia, and by all writers confeſſion utterly condemned: for ſurely I cannot chuſe but raunge together in one ranke all ſuch as ſeeme to depend upon one name in Greeke.

*It ſeemeth that he meaneth by *Apiaſtrum* a kind of *Ranunculus*, i. Crow-foot, called *Flammula*, our Spere-wort, or *Apium riſus*.

But Aliſanders, which the Greekes tearme Hippoſelinum is a good counterpoiſon againſt the biting of Scorpions. If the ſeed bee taken in drinke, it cureth the wrings and torments of the guts. The ſame being boiled and drunke with honied wine, helpeth the Strangurie and difficultie of making water. The root ſodden in wine, expelleth ſtone and gravell by urine: it putteth away alſo the paine of the loines, flankes, and ſides. Taken in drinke, or applied as a liniment, it healeth the biting of a mad dog. The juice thereof in drinke, heateth them that are readie to chill and be frozen with cold.

A fourth kind of Ach or Perſely ſome have made that, which the Greekes call Oreoſelinum. A plant this is, growing to the height of a ſpan, and *upright. The ſeed reſembleth Cumin, and is found effectuall to procure urine and provoke womens tearmes. Finally, as Smallage hath a propertie and vertue by it ſelfe to heale the pricke or ſting of the venomous Spiders: ſo this mountaine Ach or Perſeley of the hill, being taken in wine, is as effectuall to bring downe the naturall purgation of women.

*Whereby ſome read *Orthoſelinum*.

Chap. xii.

Of Stone-Perſely, named Petroſelinum: and of Baſill.

There is another kind of Ach or Perſely growing upon rockes, which ſome call Petroſelinum. An excellent hearbe for foule impoſtumes and botches uſed in this manner: Take two ſpoonefuls of the juice thereof, put it into a Cyath of the juice of Horehound, & mingle all together in three Cyaths of water, and ſo drinke it hote. Some have ſet in the raunge of theſe Aches, that which is called Buſelinon: which differeth from the garden Perſely, in that it hath a ſhorter ſtalke, and a root of red colour: but of the ſame operation and effect it is. For both taken in drink, & applied as a liniment, it is of great power againſt the ſtinging of Serpents.

Alſo, *Chryſippus* mightily crieth out upon Baſill, as being hurtfull to the ſtomacke, ſuppreſſing urine, and an enemie to a cleare ſight. Moreover, he ſaith, that it troubleth the braines, and putteth folke beſides their wits: that it bringeth the Lithargie upon as many as uſe it, and breedeth oppilations and diſeaſes in the liver. In which regard he ſaith, That Goats by a ſecret in Nature doe refuſe and eſchew it; concluding thereupon, that men alſo ſhould take heed thereof and avoid it. Some there be who have not done with it ſo: but adde moreover and ſay, That if Baſil be ſtam-

A ſtamped and put under a ſtone, it will breed to a Serpent: if it be chewed in ones mouth and laid abroad in the Sunne, it will engender woormes and maggots. The people of Affricke are verely perſuaded, and ſo they give out, That if one be ſtung with a Scorpion, the ſame day that he hath eaten Baſill, it is unpoſſible for to eſcape with life. Likewiſe, ſome hold opinion and would beare us in hand, That if a man ſtampe a bunch or handfull of Baſill, together with ten ſea-crabs, or, as many craifiſhes of the freſh water; all the Scorpions therabout will meet and gather together about that bait. Finally, *Diodorus* in his Empirickes or booke of approved receits and medicines, ſaith, That the eating of Baſill engendreth lice. Contrariwiſe, the later writers and modern Phyſicians defend and maintain the uſe of Baſill as ſtoutly as the other blamed it: for firſt they avouch conſtantly, That Goats uſe to feed therupon. Secondly, that no man was ever knowne to goe be-
B ſides himſelfe, who did eat thereof. Thirdly, that Baſill taken in wine, with a little vinegre put thereto, cureth as well the ſting of land Scorpions, as the venome of thoſe in the ſea. Moreover they affirme upon their knowledge by experience, That a perfume made of Baſill and Vinegre, is ſingular good to recover and fetch them againe that bee gone in a ſwound. Alſo, that in the ſame manner prepared, it rouſeth and wakeneth thoſe who be in a Lethargie and ſleepe continually: yea, and mightily cooleth and refreſheth them that be enflamed and in a burning heat. A liniment made with Baſill, oile Roſate, or oile of Myrtles in ſtead thereof, with vinegre, aſſuageth the paine of the head. Moreover, being laid to the eies with wine, it ſtaieth the wateriſh rheume that runneth thither. Furthermore, comfortable it is to the Stomacke (as they ſay) for being taken with vinegre, it diſſolveth ventoſities, and breaketh wind by rifting upward. Being ap-
C plied outwardly, it bindeth and ſtaieth the running out or flux of the bellie, and yet it cauſeth free paſſage of urine in abundance. After the ſame maner it doth good in caſe of launiſe & Dropſie. It repreſſeth the rage of choler that moveth both upward and downward, yea, and ſtaieth all defluxions from the ſtomacke. And therefore *Philiſtio* knew what hee did well ynough, when hee gave it to thoſe that were troubled with the Stomachicall Flux. As alſo *Pliſtonicus* was well adviſed in miniſtring it ſodden, for the bloudie Flix, the exulceration of the Guts, and the Collicke. Some there he who give it in wine to them who run ever and anone to the cloſe ſtoole, ſit downe and doe nothing: to thoſe that reach and caſt up bloud: yea, and to mollifie the hardneſſe of the precordiall parts. Being laid as a liniment to the nources paps, it reſtraineth the abundance of milke, yea, and drieth it up. There is not a better thing in the world for to bee dropped into the
D eares of little babes and ſucking children, and namely, with Gooſe greaſe. If the ſeed be bruſed, and ſo ſnuffed or drawne up at the noſthrils, it provoketh ſneeſing. The juice moreover laid as a liniment to the forehead, openeth the paſſages, that the rheumes or cold which lay in the head, may breake away. Being taken at meat, and dipped in vinegre, it mundifieth the Matrice and naturall parts of women. Mixed with Copperoſe or Vitrioll, it taketh away werts. Finally, it ſetteth folke forward to venerious pleaſure: which is the reaſon that men uſe to lay Baſill upon the ſhap of Mares or ſhee Aſſes, at the time of their covering.

Chap. xiii.

Of *wild Baſill, Rocket, Creſſes, and Rue.

*Olymoeides, Dioſcor.

E

Wild Baſill is endued with vertues and qualities ſerving to all the purpoſes aboveſaid: but the ſame is of better operation and more effectuall. And theſe properties over and beſides it hath by it ſelfe, namely, To cure the weakneſſe of the ſtomack, and thoſe accidents which come by often caſting or immoderat vomits. The root thereof taken in wine, is ſingular good for the Apoſtumes of the Matrice, and againſt the biting of venomous beaſts.

As touching Rocket, the ſeed cureth as well the venomous ſting of Scorpions, as the biting of the hardie ſhrew. The ſame chaſeth all vermine that be apt to engender in mans bodie. A liniment made therewith, and Honnie together, taketh away all the ſpots that blemiſh the skin of the face: and with vinegre, repreſſeth the red pimples whatſoever. The blacke or ſwert skars re-
F maining after wound or ſore, it reduceth to the former faire white, if it bee applied with a beaſts gall. It is ſaid moreover, that a potion thereof made with wine, and given to thoſe who are to receive puniſhment by the whip, will harden them in ſuch ſort, that they ſhall feele little or no ſmart at all by any ſcourging. And for ſeaſoning of all kind of viands, it hath ſuch a pleaſant grace in any ſauce, that the Greeks thereupon have given it the name of Euzomos. It is thought

more-

moreover, that a fomentation of Rocket, bruſed and ſtamped ſomewhat before, quickeneth and G
clarifieth the eie-ſight: it eaſeth little children of the Chincough. The root boiled in water and ſo applied, draweth forth ſpils of broken bones. As touching the vertue that Rocket hath to procure the heat of luſt, I have ſpoken alreadie: yet thus much more in particular I have to ſay, that if one do gather three leaves of wild Rocket with his left hand, ſtamp them afterwards, & ſo give them to drinke in honied water, this drinke mightily provoketh that way.

As for Creſſes, they have a contrarie operation: for they coole and dull the heat of the fleſh, howſoever otherwiſe they give an edge to the wit and underſtanding, as heretofore wee have declared. Of theſe Creſſes there be two kinds. The white is purgative, and the *weight of *℥ pondere.
a Romane denier taken in water, doth evacuate chollericke humors. A liniment thereof, toge-
ther with Beane flower applied unto the hard kernils called the Kings evill, is a ſoveraigne reme- H
die therefore, ſo that a Colewort leafe be laid thereupon. The other kind is more blackiſh, and purgeth the head of ill humors. It cleanſeth the eies and cleareth the ſight. Taken in vinegre, it ſtaieth their braines that be troubled in mind: and drunke in wine, or eaten with a fig, it is ſingular good for the ſplene. If a man take it faſting every morning with Honey, it cureth the Cough. The ſeed drunke in wine, expelleth all the wormes in the guts: which it doth more effectually, if wild Mints bee joined withall. With Origanum and ſweet wine, it helpeth thoſe that bee ſhort winded and troubled with the Cough. The decoction thereof when it is ſodden in Goats milke, eaſeth the paines of the cheſt or breaſt. Laid too as a Cerot with pitch, it reſolveth puſhes and biles, yea, and draweth forth prickes and thornes out of the bodie. A liniment applied with vinegre, taketh off all ſpots and ſpeckles of the viſage: and if the white of an eggebee put thereto, it I
cureth cankerous ſores. Alſo, beeing applied in forme of a ſoft unguent to the ſpleene, it cureth the infirmities thereof: but if they be little infants that are troubled therewith, there muſt be honey alſo put thereto: and then is it excellent good. *Sextius* addeth moreover and ſaith, That a perfume thereof burnt, driveth away Serpents, and reſiſteth the poiſon of Scorpions: as alſo that being bruiſed and applied with Senvie, it is a ſingular remedie for the head-ach & to make haire grow againe where it was fallen off: alſo, beeing ſtamped into a cataplaſme with a fig, and laid to the eares, it cureth the hardneſſe of hearing. Likewiſe, if the juice thereof be infuſed or poured into the eares, it eaſeth the tooth-ach. Moreover, a liniment made therewith & Gooſe greaſe, ſcoureth away the ſkales and dandruffe, as alſo the ſkalls of the head. A cataplaſme made of it, and levain, ripeneth fellons; bringeth carbuncles to ſuppuration, and breaketh them. With Honey, it K
mundifieth filthie corroſive and cankerous ulcers that eat deepe into the fleſh. A liniment thereof with Barley grotes and vinegre is good for the Sciatica and the paines of the loins: in like maner it cureth Ringwormes and Tettars: it mundifieth the roughneſſe about the nailes, for it is of a cauſtike nature. The beſt Creſſes are the Babylonian. And yet the wild are more effectuall than it, in all caſes abovenamed.

But Rue is an hearbe as medicinable as the beſt. That of the garden hath a broader leafe, and brauncheth more than the wild, which is more hote, vehement and rigorous in all operations. There is a juice uſually preſſed out of it, beeing firſt ſtamped and ſprinckled a little with water in the ſtamping, and then put up into a boxe of copper or braſſe, and there reſerved for to be uſed as occaſion ſerveth: This juice taken in a great quantitie, is a very poyſon and no bet- L
ter; eſpecially that which is drawne out of the Rue which groweth in Macedonie about the river Aliacmon. But will you heare a ſtraunge and wonderfull thing? the juice of Hemlocke killeth this venomous qualitie of it. See how one poyſon is a counter-poyſon to another: inſomuch, as if they annoint their hands with the juice of Hemlocke, who are to gather Rue, they ſhall not be envenomed therewith. And yet as venomous otherwiſe as Rue is, it goeth into the compoſition of thoſe Antidots which are given againſt poyſon, eſpecially that Rue of Galatia. And to ſpeake in generall, there are none of theſe Rues, but the leaves both bruiſed alone & alſo taken in wine, ſerve for preſervatives: & principally, againſt the hearbe Aconite or Libard-bane, & the viſcous gom of the hearbe Chamelæon, which they call Ixias: likewiſe againſt deadly and venomous Muſhromes taken at the mouth, whether it bee by way of meat or drinke. In like man- M
ner it is ſingular good againſt the ſtinging of Serpents: for the very Weaſels when they prepare themſelves to combat with them, uſe to eat this hearbe beforehand, for to bee ſecured from their venome. Availeable it is alſo againſt the pricks of Scorpions and Hardi-ſhrews, againſt the ſtings of Bees, Hornets, and Waſps, againſt the poiſon of the Cantharides & Salamanders, yea & the

biting

A biting of a mad dog; if it be uſed in this wiſe, namely, to take a ſaucer full or acetable of the juice, and ſo to drinke it with wine: alſo to ſtampe or but champe in the mouth the leaves thereof, and ſo lay them upon the greeved place with honey and ſalt; or elſe to ſeeth them with vinegre and pitch. Folke ſay moreover, that whoſoever is well rubbed with the juice of Rue, or otherwiſe doe but carie it about him, ſhall be ſure ynough for being either pricked, ſtung, or bitten with any of thoſe hurtfull and venomous creatures abovenamed: furthermore, that Serpents naturally doe flie from the ſmoke or fume of Rue when it burneth, and will not come near unto it. But the moſt ſoveraigne of all other, and ſureſt in operation, is the root of the wild Rue, if it bee drunke with wine. And the common ſpeech goeth of it, that the greater and ſpeedier effect will bee ſeene, in caſe forſooth one drinke it without the houſe, in the open aire abroad. *Pythagoras* was of opini-
B nion, That there is a diſtinction of ſex in this hearbe, and namely, that the male hath ſmaller leaves, and thoſe of a more darke and graſſe green colour than the female, whoſe leaves are both fuller and better fed, and alſo of a more pleaſant and gaier hew. Hee was perſuaded alſo that Rue is hurtfull to the eies, but therein he was deceived. For well it is knowne, that engravers, carvers, and painters, doe ordinarily eat Rue alone for to preſerve their eie-ſight: they take it alſo with bread or Creſſes, without any regard whether it be the wild or the gentle Rue of the garden. By report alſo, many have uſed an inunction thereof to their eies, with the beſt honie of Athens, and thereby cleared them quite of that muddineſſe and miſt which dimmed their ſight: or elſe in ſtead of honey they have taken breaſt-milke of a woman that lately bare a maiden child; or no more but with the very pure juice of Rue and nothing els they have gently touched the corners
C of the eies. Others have cured the waterie humor that hath taken a running thither, only by applying the juice of Rue together with Barley groats. If a man drinke Rue with his wine, hee ſhall find eaſe of his head-ach: or if hee doe but annoint his temples and forehead therewith, being incorporat with vinegre and oile of Roſes into the forme of a liniment. But if it bee an old and inveterat paine of the head, then would there a frontale be made of the ſaid juice, tempered with Barley floure and vinegre. Rue hath this vertue, to diſcuſſe and reſolve all crudities and ventoſities proceeding thereof, yea, and cureth the ſettled old paines of the ſtomacke. It is of power to diſopilate or open the Matrice: to ſettle the Mother into the right place when it is looſe & out of frame, in caſe a liniment be made thereof, and laid all over the region both of the womb and the breaſt. If Rue be eaten with figs, or ſodden to the conſumption of the one halfe-deale, and the
D decoction thereof taken in wine, it is good for the Dropſie. And in that manner they uſe to drink it for the paines of the breaſt, ſides, and loines: for Coughs alſo and ſhortneſſe of breath, & generally for all greefes and maladies incident to the lights, liver, and kidneies: and laſt of all, for the ſhaking cold fits in an intermittent ague. Is a man diſpoſed to drinke freely, and to ſit ſquare at it? let him before hee begin take a draught of the decoction of Rue leaves, hee ſhall beare his drinke well, and withſtand the fumes that might trouble and intoxicat his brains. In one word, uſed ordinarily at meat, either raw, ſodden, or preſerved and condite any way, it is ſingular good for the purpoſes beforeſaid. Boiled with Hyſſope and taken in wine, it is ſingular for to aſſuage the torments of the bellie: and being ſo prepared, it reſtraineth the flux of bloud within the bodie: like as it ſtancheth bleeding at the noſe, if it be ſtamped and put up into the noſethrils. And
E otherwiſe a collution thereof to waſh the mouth withall, doth much good to the teeth. Semblably, the juice diſtilled into the eares, allaieth their paine; provided alwaies (as I have often ſaid alreadie) that a meane and meaſure be kept. As for the juice of the wild Rue, if it bee tempered either with oile of Roſes or of Baies; or elſe mingled with Cumin and Honnie, it helpeth thoſe that are hard of hearing, and diſcuſſeth the ringing ſound in the eares. Moreover, the juice of Rue ſtamped and drawne with vinegre, is excellent good to be inſtilled or let drop from on high by way of Embrochation upon the region of the braine and temples of the head, for the phrenſie. Some put thereto wild running Thime alſo and Baies, therewith annointing the head & neck of the patient. Others have preſcribed it in caſe of Lethargie to thoſe that can do no other but ſleep continually, for to ſmell unto. And thoſe have given counſell alſo to them that be ſubject to the
F falling ſickneſſe, for to drinke the juice thereof ſodden in foure Cyaths of water, before the fit came upon them; for to prevent & avoid the intollerable cold which they ſhould endure: as alſo to thoſe that be apt to *chill for cold, to be eaten with meat, raw. Rue ſendeth out even the bloudie urine which is gathered in the bladder. And as *Hippocrates* is of opinion, If it be drunke with ſweet, thicke, and groſſe wine, it cauſeth womens flowers to come downe, it expelleth the after-birth,

* *Alſioſis*. Some read *Alphioſis*, [out of *Dioſcorides*] that is, to them that are ſubject to the white Morphew, which is a kind of Leproſie, or S. *Magnus* evill.

birth,yea,and the dead infant within the wombe. And therefore he adviſeth women in travell to have thoſe naturall parts annointed with Rue,yea,& to ſit over a ſuffumigation made thereof. *Diocles* maketh a cataplaſme with Rue,Vinegre,Honie,and Barley flower,for faintings,cold ſweats, and tremblings of the heart. Likewiſe,againſt the torments of the ſmall guts,commonly called the *Iliake paſſion, he appointeth to take the decoction thereof in Oile, and to receive the ſame in lockes of wooll,and ſo to be applied unto the upper region of the bellie. Many doe ſet downe two drams thereof drie,and one dram and a halfe of Brimſtone, as an excellent receit to bee taken by thoſe that reach and ſpit up filthie and ſtinking matter: but if they caſt or ſend up bloud, they ſhould drinke the decoction of three braunches thereof in wine. It is an ordinarie practiſe in caſe of the Dyſenterie or bloudie Flix, to give it ſtamped firſt with cheeſe, in wine: but they mingle therewith Bitumen,and ſo crum or breake it in to their drink,againſt the difficultie of taking wine. Alſo three drams of the ſeed thereof is given in drinke to thoſe that are fallen from a loft,for to diſſolve the bruiſed and cluttered bloud within them. *Item*, Take one pound or pint of oile,of wine one ſextar or wine quart,ſeeth the leaves of Rue herein: that oile ſo prepared,is ſingular good for to annoint the parts which are benummed, and in manner mortified and blacke with cold. Moreover,conſidering that it is Diuretical,as *Hippocrates* thinketh,and doth provoke urine;I cannot but wonder at ſome,who give it as a thing that ſtaieth urine, & therfore appoint it to bee drunke by thoſe that cannot hold their water. The inunction thereof with Allum and Honie,cleanſeth the drie wild ſcab & leproſie. Likewiſe with Morell or Nightſhade,Hogs greaſe and Buls tallow,it ſcoureth the Morphew,taketh away werts,diſcuſſeth and diſpatcheth the Kings evill and ſuch like tumors. In like manner it killeth the fretting hote humor called S. *Anthonies* fire,being applied to the place with Vinegre, Honnie,or Ceruſſe,*i.* white Lead: like as it cureth the Carbuncle laid too,with Vinegre alone. Some there be who preſcribe Laſerpitium alſo to be joined with the reſt in this liniment: but without it they cure the chilblanes and bloudie fals that bee ſo angrie in the night ſeaſon. Many uſe to boile Rue,and together with wax,reduce it into a Cerot; which they applie unto the ſwollen breaſts or paps of women,as alſo to the breaking out of phlegmaticke puſtules or whealks[much like to our meaſels or ſmall pockes.]Alſo beeing reduced into an unguent with the tender ſprigs or tops of Laurell,it is a ſingular remedie for the Flux or fall of humors into the burſe of the cods. And verely this Rue is counted ſo excellent an hearbe in operation this waies,& ſo reſpective peculiarly to thoſe parts,that it is commonly holden for a ſoveraigne remedie to heale all ruptures; if a man take the wild of that kind and make a liniment of it and old Swines greaſe together. Likewiſe,if any bones or lims bee broken, a Cerot made with the ſeed of Rue and wax together,is able to ſouder the fracture. The root of Rue being reduced into a liniment,cureth bloudſhotten eies,and reſtoreth to the native colour all ſcars or ſpots that give blemiſh to any part of the bodie. Among the other properties that be reported of Rue,this is one to be wondered at,conſidering how hot it is of nature(as all Phyſicians do agree) That a bunch thereof being boiled in oile Roſate,and with one ounce of Aloe brought into the forme of an ointment,ſhould repreſſe their ſivet,who are annointed therewith. As alſo, that the ordinarie uſe thereof at meat ſhould diſable folke as well in the act of generation, as conception: In which regard is it preſcribed unto them that ſhed their ſeed,and unto ſuch as uſe to dreame in their ſleepe of amatorious matters and the delights of *Venus*. But women with child muſt beware how they eat Rue: they eſpecially muſt forbear this hearb: for I find that it killeth the yong child conceived within their bodies. Thus much for the effects that it worketh in men & women. Over and beſides all which, there is not an hearbe growing in the garden that is ſo much uſed for the curing of foure footed beaſts, whether it bee that they bee broken winded and purſive,or otherwiſe bitten and ſtung with venomous beaſts; in which caſes, there muſt be an injection made up into the noſthrils,of the juice of Rue in wine. Alſo,if it chaunce that a beaſt hath ſwallowed an Horſeleech in drinking,let it be taken with vinegre. Finally,in every accident of theirs,let Rue be prepared and miniſtred reſpectively unto each griefe,according to the manner ſet down for men in the ſemblable caſe.

*or, *Domine miſerere mei, i.* Lord have mercie upon me.

Chap. xiiii.

Of wild Mint: of garden Mint: of Penyroiall: of Nep, and Cumin.

WIld Mint is called in Latin Mentaſtrum: it differeth from the other in the forme of the leaves: *for ſhaped it is like Baſill, howſoever in colour it reſembleth Penyroiall,which is

*All this agreeth to our Calaminth: according to *Dioſcorides.*

A is the cauſe, that ſome name it the ſavage Penyroiall. In the time of *Pompey* the Great, it was knowne by experience, that the leaves of wild Mint chewed and applied outwardly, cured the Leproſie: by occaſion, that a certaine leaper minding to diſguiſe himſelfe, that hee might not for very ſhame bee knowne, chaunced to annoint and beſmeare his face all over with the juice of wild Mints. But fortune was better miſtriſſe unto him than he expected, for beyond his expectation or intent, his good hap was to be rid of his Leproſie by that meanes. The ſame leaves ſerve for a liniment againſt the venome of Scolopendres, and the ſting of Serpents: ſo doe they alſo, if one drinke two drams of the leaves in two Cyaths of wine. Alſo, for to cure the prickes of Scorpions, they be uſed with ſalt, oile, and vinegre. But againſt Scolopendres, commonly they drinke the juice or broth of the decoction. Moreover, the wiſer ſort of people ſave the drie
B leaves of wild Mints to bee reduced into a pouder, as a very counterpoyſon againſt all venome whatſoever. For being ſtrewed in the houſe, or burnt, the very aire and perfume thereof chaſeth away Scorpions. A drinke made therwith purgeth and purifieth women paſſing well, ſuch I mean as be newly delivered of childbirth; but it killeth the fruit within the wombe of as many as uſe it while they goe with child. There is not a medicine in the world ſo effectuall as it is for thoſe, who are ſo ſtreight winded, that they cannot take their breath unleſſe they ſit upright: for ſuch alſo as in the chollerick paſſion, never give over caſting upward & purging downward. It appeaſeth alſo the paine of the loines, and eaſeth the gout, if it be applied to the place affected. The juice thereof is good to be dropped into eares that have wormes within them. It is uſually taken in drink for the Iauniſe. A liniment made therof, helpeth the kings evill: beſides, it is a ſingular remedie for
C them that by a ſtrong imagination of *Venus* in their dreames, defile and pollute themſelves in their ſleepe. If one drinke it with vinegre, it excludeth the flat broad wormes in the bellie. To ſcoure away the foule dandruffe, an Embrochation of it and vinegre upon the head in the Sun is counted ſingular.

As touching garden Mint, as the very ſmell of it alone recovereth and refreſheth the ſpirits: ſo the taſt ſtirreth up the appetite to meat, which is the cauſe, that it is ſo ordinarie in our ſharpe ſauces wherein we uſe to dip our meats. Being put into milke, it will not ſuffer it to turn or ſoure, it keepeth it from quailing & curding: which is the reaſon, that they who uſe ordinarily to drinke milke, take Mints therewith, for feare it ſhould coagulate or crudle in their ſtomacke, & put them
D in daunger of ſuffocation. Some, for the ſame effect uſe to give it in water or honied wine: and ſurely it is thought by that very propertie to hinder generation, in that it diſſolveth the due conſiſtence and thickneſſe which is required in naturall ſeed. And yet it is a great ſtancher of bloud indifferently in men and women: but more particularly it ſtaieth the immoderat flux of whites * ῥοὴν γυναικεῖον. that many times followeth women. Being taken with Amydum or ſtanch-pouder in water, it reſtraineth the inordinat flux occaſioned by the imbecilitie of the ſtomacke. *Syriation* the Phyſician uſed ordinarily to cure the apoſtumes and ſores of the Matrice, with Mint. Alſo againſt the obſtructions & other accidents of the liver, he was wont to give three Oboles therof in honied wine. And for them that raught up bloud at the mouth, he preſcribed to take Mints in a broth or ſupping. The skall that little children be troubled withall, it healeth wonderfull well. It is ſingular to drie up the humors that mollifie the griſtly wind pipe & the other inſtruments of the breath and
E voice; and when they are drie, knitteth and ſtrengtheneth them. Taken in water and honied wine, it cleanſeth the corrupt and putrified flegmaticke humors which bee offenſive to the throat and thoſe parts. The juice of Mints is excellent for to ſcoure the pipes and clear the voice, being drunk a little before that a man is to ſtraine himſelfe, either in the quier, or upon the ſtage, or at the bar; and not otherwiſe. A gargariſme of milke, wherin hath ben Rue and Coriander, beſides Mints, is paſſing good to bring down the ſwelling of the Vvula. Being uſed in that manner with ſome Allum, it reſtraineth the mumps or inflammation of the Amygdales: and with Honie it cureth the roughnes & furring of the toung. Being uſed alone without any other addition, it is a proper medicine for inward convulſions, as alſo for the diſeaſe of the lungs. *Democritus* ſaith, that to drinke it with the juice of a Pomgranat, is a ready means to ſtay the yex and vomiting. The juice of green
F Mints, drawn up with the wind into the noſthrils, helpeth the ſtinking ulcers there. The hearb it ſelfe ſtamped, repreſſeth the rage of choler that purgeth both waies unceſſantly, but it muſt bee drunke with vinegre. And in that manner it reſtraineth all internall fluxions of bloud. But applied outwardly with Barly groats to the grieved place, it eaſeth the intollerable pain of the Iliake paſſion: after the ſame ſort if it be ſpread and emplaiſtered, it allaieth the ſwelling of womens breaſts.

In

In caſe of headach, a liniment thereof doth well to be applied unto the temples. Inwardly it is ta- G
ken with very good effect againſt the venomous Scolopendres, the ſea Scorpions, and other ſer-
pents. A liniment thereof ſtayeth the wateriſh humors that have taken a courſe to the eyes, cu-
reth the skalls and breakings out of the head, and all accidents offenſive to the tiwill or funda-
ment. If one doe but hold Mints in his hand, hee ſhall not need to feare either chauſing or gal-
ling in any part, upon travaile. Being dropped into the eares with honied wine, it is very comfor-
table to that part. It is ſaid moreover, that if a man come into a garden where Mints groweth,
and bite the leaves upon the very plant, without plucking or cropping it off, and continue this
courſe nine daies togither, iterating evermore theſe words [*I doe this to cure the ſplene*] hee ſhall
find remedy indeed for the infirmitie of that part. Moreover, let one take as much poudred mints
dried as hee can well containe with his three fingers ends, and drinke the ſame with water, it will H
cure the head-ach, or grievous paine of the ſtomack. Likewiſe if his drinke be ſpiced with the ſaid
powder, it will drive out of the belly the worms there engendred.

The braunches of Mint and Penyroiall both, are uſually put into glaſſe viols with vinegre, for to be infuſed therein: and a man would not thinke how good this vinegre is for faintings of the heart; ſo great is the ſocietie that theſe two hearbs have one with the other in this behalfe. For which cauſe, I remember upon a time when divers learned Phyſicians were met togither to con-
fer in my chamber, they reſolved & concluded definitly, That a chapler of Penyroiall was with-
out compariſon far better for the giddineſſe and ſwimming of the head, than one of roſes; for a
garland of Penyroiall, if it be worne onely upon the head, allayeth (by report) the ach thereof.
More than that, it is ſaid, That the very ſent of Penyroiall preſerveth the brain from the offence I
that may come by the diſtemperature either of heat or cold, yea and from the inconvenience
of thirſtineſſe: inſomuch as whoſoever have two braunches or ſprigs of Penyroiall put into his
ears, ſhall feele no exceſſive heat though they continued in the Sun all the day long. Penyroiall
being applied in forme of a liniment, togither with barley groats and vinegre, aſſuageth all grie-
vous paines whatſoever. Howbeit, the female of this kind is thought to be of greater operation
every way, than the male. Now hath this female a purple floure, that you may know it thereby
from the other; for that of the male is white. The female Penyroiall taken in a maſh made with
ſalt and barley groats in cold water, ſtaieth a keckliſh ſtomacke, and keepeth it from the inordi-
nat deſire and many offers to caſt. In the ſame manner alſo it eaſeth the paine of the breaſt and
belly. Likewiſe the gnawings of the ſtomacke it ceaſeth, being taken in water; as alſo immoderat K
vomits it repreſſeth, with vinegre and barley groats. Beeing ſodden in honey with a little nitre
among, it cureth the maladies of the guts. If one drinke it with wine, it cauſeth abundance of
urine: and if the ſaid wine be made of the Amminean grapes, it expelleth the ſtone and gravell,
yea and all things els which may engender inward paines. If it be taken with honey and vinegre,
it provoketh womens tearmes, and quieteth them when they lye gnawing and fretting inwardly,
yea and ſendeth foorth the after-burden. The ſame ſetleth the mother and reduceth it into the
right place. It expelleth alſo the dead child within the mothers bodie. The ſeed of Penyroiall if
it be ſmelled unto, is ſingular good to recover their tongue againe who be ſpeechleſſe: for the
falling ſickneſſe alſo, it is given in a cyath of vinegre. If it fortune that one muſt drinke unhole-
ſome waters, the ſeed thereof reduced into powder and ſtrewed thereupon, correcteth all the L
malice thereof. If the ſame be taken in wine, it ſlaketh the itch in the bodie proceeding of hot
and ſalt humors. The ſeed of Penyroiall, mingled with ſalt, vinegre, and honey, if it be well rub-
bed into the bodie, comforteth the ſinewes in caſe of cramps and convulſions: and particularly
helpeth thoſe who with a cricke are forced to carrie their necke much backward. The decoction
thereof is a ſoveraigne drinke againſt the ſting of Serpents; and particularly of Scorpions, if it
be bruiſed and taken with wine: eſpecially that which groweth in drie places. Moreover, Peny-
royall is held to bee very ſoveraigne for the cankers or ulcers in the mouth: and as effectuall to
ſtay the cough. The floures of Penyroiall that be freſh and new gathered, if they be burnt make
a ſingular perfume to kill fleas. Among many good receits that *Xenocrates* hath left unto us, wee
find this for one, namely, That a braunch of Penyroiall wrapped within wooll, and given to the M
Patient for to ſmell unto before the fit come of a tertian ague, driveth it away: as alſo if it be put
under the coverlet of the bed, and the Patient laid upon it, it doth no leſſe. For theſe purpoſes
above named, the wild Penyroiall is of moſt efficacie: This hearb reſembleth Origan, and hath
ſmaller leaves than the Penyroiall of the Garden: ſome give it the name of Dictamnus. If it

chaunce

A chaunce that either ſheepe or goats doe taſt thereof, it provoketh them preſently to blea: wherupon certaine author, chaunging one letter for another in Greeke, call it * βλήχων. This hearb is ſo hot and ardent, that if any part of the bodie be rubbed or annointed therewith, it will riſe into a bliſter. If one have taken a through cold and thereby gotten a cough, Phyſicians have preſcribed to uſe frictions therewith, before the Patient goe into the baine for to ſweat. Alſo their direction is to do the like before the cold fits of agues; as alſo in caſe of the cramp and torments of the guts. Wonderfull good it is in all kinds of gout. If it bee taken in drinke with honey and ſalt, it is ſingular for thoſe who bee diſeaſed in the liver, as alſo for the lights; for it openeth their pipes and diſchargeth them of the fleam that ſtuffed them, ſo as they may reach up and void the ſame with eaſe. The decoction thereof, with ſome ſalt, is excellent good for the ſplene and the
B bladder; yea and for all ventoſities and ſhortneſſe of breath. Semblably, the juice prepared and dreſſed in manner aforeſaid, bringeth the mother into the naturall place; and ſerveth as a countrepoiſon againſt the Sconlopendre both of the ſea and the land: as alſo for the pricke of Scorpion: and eſpecially againſt the biting of man or woman. The root thereof being applied freſh and greene, is marvellous good to repreſſe ranke ulcers, and to conſume the proud fleſh about them. The ſame being drie and ſo applied, reduceth skars to their freſh colour and beautie of the faire and whole skin. Thus much of Penyroiall of the garden and the field.

* For βλήχωι.

Great conformitie there is in operation betweene Penyroiall and * Nep: for being both of them boiled in water unto the conſumption of a third part, they diſcuſſe and ſhake off the cold in ague fits which cauſeth the Patient to ſhake; and beſides, are of validitie to bring downe wo-
C mens monethly ſickneſſe. In Summer time, they aſſuage the extremitie of heat. Nep alſo is powerfull againſt Serpents, for the ſmoke and perfume of this hearb they cannot abide, but will flie from it: which is the cauſe that ſuch as bee afraid of Serpents, ſtrew Nep under them in the place where they meane to repoſe and ſleepe. Being bruſed and applied to the running fiſtulous ulcers betweene the noſe and the greater corner of the eye, it is counted a ſoveraigne remedie: alſo being freſh gathered, and mixed with a third part of bread, and ſo tempered and incorporat with vinegre to the forme of a liniment, it cureth the head-ach. The juice thereof being inſtilled into the noſthrils, whiles the Patient lyeth upon his backe, ſtancheth bleeding at the noſe. The root alſo, togither with Myrtle ſeed, in warme wine cuit & ſo gargarized, helpeth the Squi-
D nancie. As touching wild Cumin, it is an hearb exceeding ſmall, putting foorth foure or five leaves and not above, and thoſe indented like a Saw: But the garden Cumin is of ſingular uſe in Phyſicke, but principally for the paine in the ſtomacke. It diſpatcheth the groſſe vapours ariſing from fleame; it diſſolveth alſo ventoſities, if it bee either bruiſed and eaten with bread, or drunke with water and wine: in which ſort it aſſuageth the wringing torments and other paines of the guts: howbeit, it maketh folke looke pale as many as drinke of it. Certes by that deviſe, namely, by ordinarie drinking of Cumin (as it is reported) the ſchollers and followers of *Portius Latro* (that famous and great Rhetorician) procured themſelves pale faces becauſe they would look like their maſter; who in deed came to that colour by continuall ſtudie & plying his booke. Thus likewiſe not long ſince, *Iulius Vindex*, being deſirous to be affraunchiſed by *Nero*, pretending by his pale viſage and poore look, that he had not many daies to live, made faire ſemblance
E unto *Nero* by his will and teſtament, that he ſhould ſhortly bee his heire; (which cheat the ſaid *Nero* gaped after;) and ſo by that means *Vindex* entred ſo far within him, as he obtained whatſoever he would at his hands. Cumin reduced into the forme of throchiskes or * noſe-tents put up into the noſthrils, ſtaunceth bloud. The like effect it hath, being freſh gathered and applied with vinegre. Being laid it ſelfe alone, to watering and weeping eyes, it reſtraineth that humor: and in caſe the cods bee bolne or ſwelled, it is good to mix honey withall in manner of an emplaſter: But it ſufficeth to make a cataplaſme therof, and lay it to the belly alone, of little babes and infants that way troubled. Finally, to cure the jauniſe it is ſingular, given in white wine when the Patient hath ſwet and is come out of the baine.

* called *Errhina* or *Naſcalia*.

F

Chap. xv.

☞ * *Of Cumin Æthiopicke, which reſtraineth the flix of urine: of Capres: of Lovach or Panax: and of a kind of Marjerom named Cunila-bubula.*

* It ſeemeth that this Title is corrupt.

BVt for the purpoſe aforeſaid, namely to cure the jaundiſe, the Æthiopian Cumin is the beſt, being taken after a bath with vinegre and water: alſo licked in manner of a Loch with hony.

As for the Cumin of Africke, it is thought to have a ſingular proprietie by it ſelfe for to help thoſe who cannot contain & hold their urine. The garden Cumin, if it be parched dry, brought into powder, and given in vinegre, helpeth the defects and infirmities of the liver. Alſo it cureth the dizzineſſe of the head. But in caſe the acrimonie or ſharpneſſe of the urine be ſuch, as that it fret and moove ſmart in the paſſage, the powder thereof would bee tempered in ſweet * wine cuit. For the impediments of the matrice, it ought to be drunke in pure wine of the grape: and withall, there muſt be applied to the part offended, a cataplaſme of the leaves upon a locke of wooll. Dried againſt the fire, bruiſed and beaten into powder, and ſo incorporat with oile of roſes and wax, and wrought in the end to the forme of a cerot, and then applied, it abateth the ſwelling of the cods. But the wild Cumin is more effectuall in all the caſes above mentioned, than that of the garden. Over and beſides, it hath a ſpeciall vertue, togither with oile, againſt Serpents, Scorpions, and Scolopendres. Take as much of Cumin ſeed as you may comprehend within three fingers, drinke it in wine, it will ſtay immoderat vomit, yea and the ſicke heaving of the ſtomacke, as if it would caſt and cannot. A drinke made therewith, is given alſo for the cholique: and to that purpoſe, a liniment thereof is very commendable; or if it bee applied hot in quilted bags, ſo that the ſame be kept ſwadled down unto the region of the gut Colon. For a woman that is given to the riſing and ſuffocation of the mother, let her drinke it in wine after this proportion, Three drams of Cumin to three cyaths of wine; ſhee ſhall find that it will reſolve thoſe vapours and fumoſities which cauſed the foreſaid maladie. With calves tallow or ſewet, or with honey, if it be let drop into the eares, it cureth the ſounding and tingling therein. Being applied as a liniment with honey, raiſons, and vinegre, it reſolveth the blacke and blew marks remaining after ſtripes. Alſo with vinegre alone, it cureth the blacke ſpots and ſpeckles appearing in any part of the bodie, if the place be bathed therewith.

* *In dulci*: he meaneth *paſſum*.

An herb there is reſembling Cumin for all the world, which the Greeks call Ammi: although ſome there are who thinke it to be all one with the Cumin of Æthiopia. *Hippocrates* calleth it, the Roiall Cumin [of Ægypt;] the reaſon was, no doubt, becauſe he deemed that of Ægypt to exceed all the reſt in goodneſſe. But moſt writers beſides him, do thinke it * an herb altogither of another nature, becauſe it is ſmaller and whiter: and yet it ſerveth to the like uſe; for at Alexandria in Ægypt they put it commonly under their loaves of bread in the bottom cruſt when they go to the oven: and ordinarily it is occupied in the kitchin about ſawces. Be it what it will, it diſſolveth ventoſities, it pacifieth the wringing torment of the guts, it provoketh urine, and bringeth downe womens months. Being taken in wine (togither with Line ſeed) to the quantitie of two drams, it cureth the venomous ſtings of Scorpions: but put thereto an equall quantitie of myrrhe, it hath a ſingular vertue againſt the horned ſerpent Ceraſtes. And, like to the other Cumin before named, it altereth the colour of as many as drink of it, and makes them look pale. A ſuffumigation made thereof, with Raiſons and Roſin, mundifieth the matrice and naturall parts of women. Finally, it is commonly ſaid, That if a woman ſmell thereto, in the very act of generation, ſhe ſhall conceive the rather by that means.

* *Ruellius* taketh it for Baſil gentle.

As for Capres, wee have ſufficiently written thereof among other ſhrubs that be ſtraungers: and yet it will not be amiſſe to reiterat thus much, That a man muſt be well adviſed how he taketh any outlandiſh Capres that come from beyond-ſea: but if hee will goe ſafely to worke, let him hardly keepe him to thoſe of Italy, for they are leſſe harmeleſſe than the other: for if all bee true that is commonly reported, whoſoever daily eat Capres, ſhall not be in daunger either of palſie or pain of ſplene. The root of Capers is ſingular good to take away the white ſpotted morphew, (couſin germane to the leproſie) in caſe it be ſtamped, and the place affected rubbed therewith. Take the rind of the root, the quantitie of two drams, and drinke it in wine, it helpeth the ſwelled ſplene; provided alwaies, that the Patient forbeare the uſe of baines and hot-houſes: for (by report) this courſe continued 35 daies, will cauſe the ſaid ſplene to purge away, partly by urine and partly by ſeege. The ſame, if it be taken in drinke, allaieth paine in the loins and cureth the palſey. The ſeed of Capres ſodden in vinegre, bruſed and applied to the teeth, or otherwiſe the root thereof chewed only, aſſuageth the tooth-ach. A decoction of Capres in oile, inſtilled into the ears, mitigateth their paines. The leaves and the root newly gathered, and ſo applied as a cataplaſme with honey, healeth the corroſive ulcers that eat to the very bone. Likewiſe the root reſolveth all thoſe glandulous ſwellings which wee name the Kings evill: and if the ſame be ſodden in water, it diſcuſſeth the tumors behind the ears, and riddeth away the wormes breeding within.

It

A It cureth alſo the infirmities of the liver. The manner is to give the ſame in vinegre and honey for to chaſe away the vermin engendred within the guts. Boiled in vinegre, it is ſingular for the cankers or exulcerations within the mouth: howbeit, all authors doe accord, that they bee not good for the ſtomacke.

Touching Lovage, which ſome call Panax, it is * holeſome for the ſtomacke. Likewiſe a proper medecine it is for convulſions and ventoſities. To conclude, there are ſome who name it Cunila Bubula, as I have before noted, but they be deceived.

* *Vtile: nam concoctionem iuvat. Ex* Dioſcor.

Chap. XVI.

Of the wild Origan Cunila Bubula: of the Baſtard Marjoram, named Gallinacea Cunila, or Heracleoticum Origanum: of the tender Cunilago: of Roſemarie: of Garden Savorie or Cunila, and that of the mountains.

B OVer and beſides the Garden Savorie, there be many kinds of Cunila known in Phyſicke: and firſt, that which is called Bubula, & hath ſeed like unto Penyroiall, being either chewed in the mouth or applied outwardly, it is a good wound-hearb, ſo that it be not remooved but every five daies. Taken in wine, it is ſingular againſt the poiſonous ſting of Serpents, in caſe the hearbe it ſelfe be ſtamped, and laid withall upon the ſore place: and verely it is an ordinarie thing, to rub therewith well and throughly, the wounds that they make. Semblably, the Tortoiſes, againſt the time that they ſhould fight with Serpents, uſe this hearb in manner of a
C defenſative, and take themſelves well armed againſt their enemie: which is the reaſon, that ſome give it the name of Panax. Being dried, it aſſuageth the paine of tumors, & cureth the accidents that befall to the privie members of men: Or if the leaves be but ſtamped, they have the like effect. And in one word, the operation thereof is excellent and wonderfull, if it be uſed in wine.

Another Cunila or Savorie there is, which our countreymen call in Latin Gallinacea; the Greekes name it Origanum Heracleoticum. If it bee brayed and ſalt joyned thereto, it is ſoveraigne for the eyes: it helpeth the cough alſo, and correcteth all faults of the liver. If a thicke grewell or ſew be made thereof, together with floure, oile, and vinegre, ſo tempered as it may be ſupped, it cureth the pleureſie or paines of the ſides: but above all, it is ſingular for the ſtinging of Serpents.

D A third kind there is, which the Greeks tearme the male, but we in Latin * Cunilago: a ſtinking ſmell it hath with it, a woodie hard root, and a rough leafe: but it is generally ſaid, that the operations thereof be more effectuall, than of any other kind. It is verely thought, that if a man caſt an handfull thereof from him into any part of the houſe, all the moths and ſuch like vermin will gather about it. But to come to particulars, It hath a ſingular power againſt Scorpions if it be taken with water and vinegre. Alſo if a man or woman take three leaves thereof, and rub his bodie throughly with it and oile togither, there is not a Serpent ſo hardie as dare approch neare ſuch a bodie ſo perfumed. Contrariwiſe the Cunila, which is named Mollis, [*id eſt*, Soft] hath leaves and braunches more hairie than the former, and thoſe ſharpe pointed like pricks. This hearbe if a man rub betweene his fingers, reſembleth honey in ſmell, and will ſticke faſt to in
E manner of honey. Another ſort there is of Cunila, which we, for the ſmell that it hath of Frankincenſe, call Libanotis. But both theſe, the one as well as the other, taken in wine or vinegre, cureth the biting and ſting of Serpents. If they be bruiſed or ſtamped into powder, and ſo put into water, they kill all the fleas in the place where the ſaid water is caſt or ſprinkled. As for the garden Savorie, it alſo hath many good properties: The juice thereof with oyle of roſes diſtilled into the ears, is very comfortable unto them. The hearbe it ſelfe taken in drinke, helpeth thoſe who are ſtung with venomous Serpents. This Savorie oftentimes doth degenerat into a baſtard kind, named Mountain Savorie. Like it is to wild running Thyme, and is effectuall likewiſe againſt the poiſon of Serpents. It provoketh urine, and purgeth women newly delivered, if haply they have not ſufficient voidance. Singular it is for to help digeſtion, and ſtirreth up appetite to
F meat wonderfully. In ſum, as well the gentle Savorie as the wild, is paſſing holeſome for crudities in the ſtomacke, if one ſpice his morning draught therewith faſting. It is uſed alſo to very good purpoſe in diſlocations and members out of joynt: with barley meale, water, and vinegre, it is excellent for the ſtinging of waſps, and ſuch like pricks. As touching the other kinds of Libanotis or Roſemarie, write I will more fully in due place.

* Flea bane.

G

Chap. xvii.

Of Piperitis and Origanum: of Onitis-Prasium: of Tragoriganum, and Heraclium: of Lepidium and Gith or Melanthium: of Anniſe.

* Ginny pepper.

PIperitis or Calecut Pepper-wort (which before wee called * Siliquaſtrum) beeing taken in drinke, is very good for the falling ſickneſſe. *Caſtor* hath deſcribed it after another manner, namely, to be an hearb riſing up with a long red ſtem, thickeſet with joynts or little knees; bearing leaves reſembling thoſe of Lawrell; with white ſeed and the ſame ſmall, carrying with it the taſt of pepper. The vertues of which hearbe be theſe; To helpe the gumbs and teeth, to make a ſweet breath, and withſtand ſoure and ſtinking belches.

H

* *Cunila.*

Origan or Orgament, which in taſt (as wee have ſaid) reſembleth * Saverie, hath many kinds, and all medicinable: for there is one ſort thereof, ſurnamed Onitis or Praſion, not unlike to hyſſope: a peculiar propertie this hearb hath being drunke in warme water, to quiet the gnawings in the ſtomacke, and to concoct the crudities there: but taken in white wine, to cure the venomous pricks of Spiders and Scorpions. The ſame applied outwardly with oile and vinegre upon wooll, is ſingular good for diſlocations, disjointures, ſpraines, contuſions, and bruiſes.

As for Tragoriganum, it is more like unto wild creeping Thyme: it hath vertue to provoke urine, to diſcuſſe and reſolve all tumors or ſwellings. And more particularly, moſt effectuall it is for them that have drunke the gum of Chamelæon, called Ixia: alſo againſt the Vipers ſting: beſides, for the ſtomacke that belcheth ſowre, and for the midriffe and precordiall parts. It is an approoved medecine for the cough, the phrenſie, and inflammation of the lungs, beeing with honey reduced into the forme of a Lohoch, for to be ſucked downe leiſurely.

I

Touching the Origan named Heraclium or Heracleoticum, the ſame alſo is divided into three ſorts: For the firſt is of a blacker and more duskiſh green, with broader leaves alſo than the reſt; and beſides is glutinous and will cleave to ones fingers. A ſecond ſort hath ſmaller leaves, ſofter it is and more tender in hand, not unlike to Majoram; and this kind ſome would rather call Praſium. The third hath leaves of a mean bigneſſe between the other two, not ſo large as the one nor ſo ſlender as the other, but not ſo forcible in operation as either of them both. But to return againe to our former Origanum: the beſt is that which groweth in Candie; for the ſame hath a pleaſant and ſweet ſent beſides: the next in goodneſſe is that which commeth from Smyrna: then after it, is the Origan that is brought from Heraclea: but that which is ſurnamed * Onitis, is ſimply the beſt of all others to bee taken in drinke. Howbeit, the uſe generally of them all in common, is to chaſe away Serpents: by way of decoction or pottage made therof, to cure them that be alreadie ſtung or wounded by them: beeing taken in drinke, to moove urine: and, togither with the root of Panace, to helpe ruptures, convulſions, and ſpaſmes: ſodden in certain Acetables with figs or hyſſope, to the conſumption of a ſixt part, to cure the dropſie. At the entrance into the ſtouve or hot-houſe if it be taken, good it is againſt the ſcab, the itch, and the wild ſcurfe. The juice with milke, is dropped into the eares, and that with very good ſucceſſe. It helpeth alſo the mumps or inflammation of the Amygdales and Vvula; likewiſe the ulcers in the head. The decoction thereof taken with lie aſhes in wine, is a countrepoiſon to kill the venome of Opium and Plaſtre. The meaſure of one Acetable, looſeneth the belly. A liniment made thereof, recovereth the native colour of the blacke and blew marks remaining after ſtripes. With honey and nitre, it aſſuageth the paine of the teeth if they bee rubbed therewith; and beſides maketh them looke faire and white. It ſtaunceth bleeding at the noſe. A decoction made therewith and barley meale, reſolveth the ſwelling kernels and inflammations behind the eares. The powder beeing incorporat in honey and gall-nuts, doth ſmooth and cleare the ruſtineſſe of the windpipes, occaſioned by a rheume. The leaves applied in manner of a cataplaſme with honey and ſalt, mollifieth the ſplene. If the hearbe be ſodden with honey and ſalt, and ſo taken by little and little, it doth cut, extenuat and make ſubtile, groſſe fleame, eſpecially if blacke melancholy bee bedded therein. Stamped, and inſtilled into the noſthrils with oile, it cureth the jaundiſe. Such as be overwearied and tired with extreame travaile, find much alleviation and eaſe by being rubbed and annointed all over with a liniment made thereof, with this caveat, That they come not ſo neare as to touch the belly with it. A plaſtre made with pitch and applyed, healeth the angrie bloudy-fals and chilblanes. Bruiſed with figs, it ripeneth felons. A pulteſſe made with it, with

K

* Bugle, or *Stæchas Arabica.*

L

M

oile,

A oile, vinegre, and barley meale, ſoſteneth and reſolveth the Kings evill. A liniment made therewith and figs togither, aſſuageth the paine in the ſides. Being bruiſed & reduced into a liniment with vinegre, & ſo laid to the privie parts, it reſtraineth the flux of blood thither; and yet it hath a propertie to evacuat the reliques of bloud, in women newly brought to bed, who ought to bee purged.

As touching Lepidium, [*i.* Paſſe rage] it is to be raunged among the burning and cauſticke medicines: by which facultie that it hath, and by bliſtering the skin, it taketh away any ſpot or blemiſh in the face; yet ſo, as the exulceration which it cauſeth, may be ſoone helped and skinned againe with a ſalve of wax and oile of roſes. By the ſame means it ſerveth to cleanſe the leproſie, and wild skabs, which it doth alwaies with eaſe and expedition; as alſo to ſmooth the cicatri-
B ces or skars after ulcers. Moreover, it is commonly ſaid, that if it bee tied faſt unto the arme, on that ſide where the teeth doe ake, it * taketh the paine quite away.

* To wit, by raiſing a bliſter and giving iſſue.

Gith or Nigella, the Greeke writers ſome name Melanthion, others Melaſpermon: the beſt is that which is blackeſt, and beſides of quickeſt ſent. A ſingular remedie it is for the ſores and wounds occaſioned by venomous Serpents and Scorpions eſpecially; if a liniment be made of it, vinegre, and honey mingled togither. I find alſo, that if it be burnt, the very ſmoke and perfume thereof will chaſe away Serpents: but particularly againſt the poiſon of venomous Spiders, a dram therof is ſufficient to be taken in drinke. Being bruiſed & knit in a linnen cloath, and ſo ſmelled unto, it reſolveth the poſe, or breaketh the cold which ſtuffeth the noſthrils. Applied as a liniment with vinegre to the forehead, or infuſed into the noſthrils, it eaſeth the head-ach.
C And if it be ſo uſed with the oile of the floure-de-lis root, it ſtayeth the wateriſh humors that fall into the eies, and abateth their ſwellings. The decoction thereof in vinegre, cureth the toothach, if a collution be made and the mouth waſhed therewith. Being ſtamped and ſo applied, or otherwiſe but chawed in the mouth, it healeth the cankers or exulcerations within. Likewiſe a liniment made of it and vinegre, cleanſeth the leproſie, and the hot red pimples breaking out in the skin. If it bee taken in drinke, with ſome addition of nitre, it eaſeth the difficultie of breathing, in ſuch as blow ſhort. It helpeth all hard ſwellings, and old feſtred impoſtumes or biles, if they be anointed therewith. If a woman be deſirous to have ſtore of milke, let her eat and drinke thereof continually every day. As touching the juice of Gith, it is drawne and gathered after the ſame manner as Henbane juice: and ſemblably, taken in any great quantitie, it is a very poyſon: which is a
D thing to be marveiled at, conſidering that the ſeed thereof ſeaſoneth loaves of bread, and giveth a moſt pleaſant relliſh to them. Moreover, the ſeed of Nigella cleanſeth the eyes, provoketh urine, and the monethly tearmes in women: yea and more than ſo, I read, that thirtie graines thereof tyed in a linnen cloth, and applyed to a woman newly delivered, will draw downe the after birth. They ſay alſo, that if it be ſtamped in urine and laid to the agnels or cornes of the feet, it cureth them: as alſo, that the ſmoke killeth gnats or any other flies.

As for the hearb Anniſe, if it alſo be drunke with wine, it is a countrepoiſon againſt Scorpions. And *Pythagoras* hath given a ſpeciall praiſe and commendation to it both raw and boiled, as to few other hearbs the like: for be it green or drie, it ſerveth as well for ſeaſoning of all viands, as making all ſauces; inſomuch as the kitchin cannot be without it. Over and beſides, when ba-
E kers ſet into the oven, they put Anniſe betweene the bottom of their loaves and the peele. And for to commend wine, Vintners uſe to put it into their Hypocras bagge, through which they ſtreine Hypocras and other aromaticall wines; and in deed with bitter Almonds it giveth a pleaſant and delicat taſt unto any wine whatſoever. If one chew it every morning upon an emptie ſtomacke faſting, together with the ſeed of Smyrnum, and a little honey, it maketh the breath ſweeter, and taketh away all ſtinking ſavours about one; provided alwaies, that the mouth bee preſently waſhed with a collution of wine. It cauſeth one to looke freſh and young. If it bee hanged about the bed upon travers or curtain, or otherwiſe ſticked to the pillow or bolſter, ſo as folke may have the ſent thereof in their noſthrils whiles they lye aſleepe, it riddeth them of troubleſome dreames and fantaſticall viſions. It procureth a good ſtomacke to meat: for ſo our idle,
F nice, and delicat wantons, ever ſince they have given over exerciſe and travaile (which ſhould get them an appetite and ſtomacke to their victuals) and betaken themſelves to ſit ſtill and doe nothing, have deviſed this artificiall meanes among others, and have recourſe to Anniſe: in which regards and for theſe cauſes, ſome have given it the name of Anicetum. The beſt of all commeth from Candie: the next unto it, is that of Ægypt: and indeed this ſerveth in ſtead

of Loveach in all ſauces. If a perfume thereof be drawn up into the noſe, it appeaſeth the head-ach. *Iollas* ſaith, That the Anniſe root bruſed and ſtamped together with wine, and ſo applied, ſtaieth the flux of waterie and weeping eies. The hearb it ſelfe with an equall quantitie of Saffron and wine, yea, or braied alone with Barley groats, reſtraineth all great fluxions and diſtillations: and the ſame compoſition applied to the eyes, driveth out any thing that hath fallen into them. A liniment made therwith and water together, conſumeth and cureth the Polypes or cankerous ulcers within the noſthrils. A collution of it in vinegre with Honie and Hyſſope, uſed as a gargariſme, aſſuageth the Squinancie. Tempered with oile of Roſes, it is ſoveraigne for the eares, to be inſtilled into them. Being taken, dried, and parched at the fire, it cleanſeth the breaſt of the viſcous and tough fleagme there gathered: but if it bee incorporat with Honie, it dooth the deed the better. But would you learne for the Cough a ſoveraigne Lohoch or confection? Take one Acetable of Anniſe, and fiftie *bitter nuts well cleanſed and blaunched, ſtampe theſe all together in a morter, and with Honey reduce them into the conſiſtence of an Electuarie. And yet there is one compoſition more for this purpoſe, and of all other the eaſieſt and ſooneſt made. *Recipe*, Of Anniſe three drams, of Poppie ſeed two drams, temper theſe with Honie: and for three mornings together take the quantitie of a Beane, faſting. And this confection is ſingular beſides againſt ſoure riftings or belching: and therefore it cureth the ventoſities which puffe up the ſtomacke: it aſſuageth the torments and wrings of the guts, and repreſſeth the continuall flux proceeding from the weakeneſſe of the retentive facultie in the ſtomacke. But to returne againe to ſimple Anniſe ſeed, a drinke made with the decoction therof, or the very ſmell taken up into the noſe, ſtaieth the troubleſome yex or hocquet. The decoction of Anniſe leaves doth digeſt and reſolve all crudities. The juice drawne from it when it is ſodden with Perſeley, if it be ſmelled unto, ſtinteth immoderat ſneeſing. Moreover, Anniſe taken in drinke, procureth ſleepe, expelleth the ſtone and gravell, ſtaieth vomites, and reſolveth the tumours in the precordiall parts, cauſed of windineſſe. Furthermore, it is a moſt ſoveraigne medicine for the diſeaſes in the breaſt: comfortable alſo to the nervous parts, membranes, and ligaments, wherin the muſcles of the bodie be either encloſed or tied and united together. The juice of it beeing boiled with oile, and ſo dropped or inſtilled into the head, is good for the paines thereof. It is thought that there is not a better thing for the bellie and the guts, than Anniſe; and therefore it is given ordinarily (if it be firſt parched and roſted againſt the fire) in caſe of the bloudie Flix and the exulceration of the guts: alſo for the inordinat profers to the ſeege, and riſing from it without effect or any thing diſcharged. Some put thereto Opium alſo, and preſcribe to make three pils thereof, to the bigneſſe of a Lupine ſeed, and to take them every day diſſolved in a Cyath of wine. *Dieuchès* uſed commonly the juice of Anniſe, for to mitigate the paine of the loines: to give alſo the ſeed beaten to pouder with Mints in wine, for the Dropſie and the defluxion Stomachicall: but the root hee thought to be paſſing good for the kidneies, uſed and taken in that manner. *Dalion* that famous Herbariſt, was wont to applie Anniſe and Perſeley together in forme of a cataplaſme, to women in labour, for better ſpeed in child-birth: alſo for the paine of the Mother, yea, hee would give it alſo to drinke with Dill, unto women when they cried out in travell. He applied it alſo green, with Barley groats in manner of a liniment, to the head, for to ſtay and ſettle the braines of franticke perſons. And being ſo prepared, he found it ſingular good for young infants ſubject to the falling ſickneſſe, or troubled with crampes and contractions of ſinewes. As for *Pythagoras* verely, he ſaith confidently, That whoſoever doe but hold this hearbe in his hand, he ſhall not bee ſurpriſed with a fit of the falling evill: and therefore he adviſeth folke to ſow good ſtore of it in their gardens about their houſes, to be readie ever at hand. He affirmeth moreover, That women in labour if they ſmell thereto, ſhall have more ſpeedie and eaſie deliverance. Hee giveth counſell beſides, that immediatly after the child is borne, the mother ſhould drinke a grewell made with it and ſome Barley groats ſtrewed among. *Soſimenes* the Phyſician was wont to molliſie and reſolve all hard ſwellings with Anniſe and Vinegre: hee uſed alſo to give the decoction thereof in oile, with ſome ſprinckling of Nitre among, to thoſe that felt wearineſſe in their lims. Moreover, he aſſured travellers and wayfaring men, that if they dranke the ſeed thereof, they ſhould find preſent helpe if they were tired. *Heraclides* gave ordinarily of the ſeed as much as might be taken up with three fingers, together with two Oboles of Caſtoreum, in honied wine, for the hoving and inflation of the ſtomacke: ſemblably, for the puffing up and ſwelling of bellie and guts. Alſo, to thoſe that were ſtreight winded, & could not take their breath but ſitting upright, he miniſtred the like

*i. Almonds.

pro-

A proportion, to wit, as much as three fingers would containe, with equall quantitie of Henbane ſeed, in Aſſes milke. Many Phyſicians give counſell to thoſe that would vomit luſtily, for to drink in water as they ſit at ſupper, an acetable thereof and ten leaves of Baies, bruiſed and beaten into pouder. If Anniſe ſeed be chewed, or applied hot in forme of a liniment, yea, or taken as a drinke in vinegre and honey, together with Caſtoreum; it helpeth the riſing of the mother & the daunger of ſuffocation thereby. If a woman in child-bed preſently upon her deliverie, drinke it with cucumber ſeed and line ſeed together, of equall quantitie, namely, as much as may bee held betweene three fingers, in three Cyaths of white wine; it will ſettle the lightneſſe of the braine, and ſtay the dizzineſſe of her head. *Tlepolemus* preſcribed for fevers Quartane, as much Anniſe ſeed as three fingers might comprehend, with the like quantitie of Anniſe and Fennell ſeed to be ta-
B ken in vinegre and one Cyath of Honie. A liniment made with Anniſe and bitter nuts, allaieth the greevous paines of the Gout. There be who are of opinion, That it hath a ſpeciall vertue and propertie to reſiſt the poyſon of the Aſpis. Certain it is that it provoketh urine, allaieth thirſt and the appetite to drinke, yea, and ſolliciteth to carnall luſt. Taken in wine, it gently putteth foorth a kind ſweat. Moreover, it keepeth cloths and apparell from the moth. Generally, the freſher and newer awaies that it is, and the blacker that it looketh, the more effectuall it is found to be. Howbeit, this one diſcommoditie it hath, That it is an enemie to the ſtomacke, unleſſe haply it bee peſtered with ventoſities.

Chap. XVIII.

C *Of Dill: of Sacopenium, and Sagapenum. Of Poppie both white and blacke. The manner of gathering and drawing juice out of hearbs. Alſo of Opium.*

Dill alſo hath a propertie to diſſolve ventoſities, to breake wind and cauſe rifting: alſo to aſſuage any wrings or torments of the bellie, and yet it ſtaieth the flux. The roots beeing reduced into a liniment with water or wine, reſtraineth the flux of watering eies. A perfume made of the ſeed as it boileth, received up into the noſthrils, ſtaieth the yex. Taken as a drinke in water, it concocteth crudities, and appeaſeth the paine of windineſſe proceeding from thence. The aſhes of it burned, raiſe up the Vvula in the throat that is fallen. Howbeit, Dill dimmeth the eyeſight, and dulleth the vigor of genitall ſeed.

D As for our Sacopenium here in Italie, it differeth altogether from that which groweth beyond ſea. For the outlandiſh kind, reſembling gum Ammoniacke, is called Sagapen. Good it is for the pluriſie and paine of the breaſt, Convulſions or Spaſmes, and old ſettled Coughs; for thoſe that reach up filthie and rotten matter; for the tumors of the Midriffe and precordiall parts. It cureth the ſwimming and giddineſſe of the head, the ſhaking and trembling of the joints, the cramp or convulſion that draweth the necke backward, the great ſwelled ſpleenes, the paine of the bones, and all ſhaking and quivering colds. A perfume made therewith in vinegre, if a woman ſmell unto, it helpeth the Mother that is ready to ſtop her wind. As for the other accidents, it is both given in drinke, and alſo rubbed into greeved parts with oyle. It is thought to bee ſoveraigne alſo againſt poyſoned drinkes given by Witches and Sorcerers.

E Touching garden Poppie and the ſeverall kinds thereof, I have written already: but beſides them there be other ſorts alſo of the wild, whereof I promiſed to treat. Meane while, the heads of the foreſaid garden white Poppie, if they be bruſed whole as they grow with ſeed and all, and ſo drunke in wine, doe procure ſleepe. The ſeed of it ſelfe alone cureth the Leproſie. *Diagoras* giveth counſell to cut the ſtem or ſtalke of the blacke Poppie when it beginneth to ſtrout and ſwell toward the flouring time, out of which there will iſſue a certaine juice called Opium: but *Iollas* adviſeth to make that inciſion when it hath bloumed, and to chuſe a faire cleare day for it, & that houre of the day when as the deaw thereon is dried up. Now would they have them to be cut under the head before the bloume; but in the very head, after it hath done flouring: and verely, ther is no other kind of hearbe wherein the head is cut, but this onely. The ſaid juice of this hearbe as
F well as of all other is received in wooll: or elſe if it run but in ſmall quantitie, they gather it with the thumbe naile, as the manner is in Lectuces: but the morrow after the inciſion, ſo much the more vigilant they muſt be to ſave and gather that which is dried. And in very deed the juice of Poppie commonly runneth out in great abundance, and gathereth into a thickneſſe: which afterward is ſtamped and reduced into little troſches, and dried in the ſhade. Which juice thus

drawne

drawne and thus prepared, hath power not onely to provoke ſleepe, but if it be taken in any great quantitie, to make men die in their ſleepe: and this our Phyſicians call Opion. Certes, I have knowne many come to their death by this meanes: and namely, the father of *Licinius Cecinna* late deceaſed, a man by calling a Pretour, who not able to endure the intollerable pains and torments of a certaine diſeaſe, and being wearie of his life, at Bilbil in Spaine, ſhortened his owne daies by taking Opium. By reaſon whereof, Phyſicians are growne to great variance, and bee of contrary opinions as touching the uſe of the foreſaid Opium. *Diagoras* and *Eraſiſtratus* condemned it altogether as a moſt deadly thing, & would not allow that it ſhould be ſo much as injected or infuſed into the bodie by way of clyſter: for they held it no better than poyſon: and otherwiſe hurtfull alſo to the eies. *Andreas* ſaith moreover, That if Opium dooth not preſently put out a mans eies and make him blind, it is becauſe they of Alexandria in Ægypt do ſophiſticat it. But in proceſſe of time the later and moderne Phyſicians did not utterly reject it, but found a good uſe thereof, as may appeare by that noble and famous Opiat confection called Diacodium. Moreover, there bee certaine ordinarie troſches made of Poppie ſeed beaten into pouder, which with milke are commonly uſed by way of a liniment to bring ſicke patients to ſleepe. Likewiſe with oile Roſar, for the head-ach: and with the ſame oyle they uſe to drop it into the eares for to mitigat their paine. Alſo a liniment made thereof with breaſt-milke, is ſingular good for the gout. In which ſort there is a great uſe of the leaves alſo to the ſame purpoſe. And beeing applied as a cataplaſme with vinegre, they helpe S. *Anthonies* fire, and all ſorts of wounds. For mine own part I would not have it in any caſe to enter into Collyries, much leſſe unto thoſe medicines which be ordained to drive away aged fits, or into maturatives, no nor to goe among other ingredients into thoſe remedies which are deviſed for to ſtay the flux that commeth from the ſtomacke. Howbeit, in this caſe laſt ſpecified, many give the blacke Poppie with wine. All garden Poppies grow rounder in the head than the wild: for theſe bear a head longer and ſmaller, howbeit (for any uſe) of greater operation than thoſe of the garden. For the decoction thereof taken as a drink, procureth ſleepe to ſuch as bee over-watchfull: ſo doth a fomentation thereof, if either the viſage bee ſprinckled, or the mouth waſhed therewith. The beſt Poppies bee they that grow in drie places and where it raineth ſeldome. When the heads and leaves both be ſodden and ſtamped, the juice that is preſſed from them, Phyſicians call Meronium: and it is far weaker and duller in operation than Opium. Now to know which is good Opium indeed, the firſt and principall triall is by the noſe; for the true Opium is ſo ſtrong, that a man may not endure to ſmell it. The ſecond proofe is by fire: for the right Opium will burne cleare like a candle; and when it is put forth, yeeldeth a ſtinking ſent from it in the end: which ſignes are never to bee found in that which is falſified and ſophiſticat: for this that is not right, will not ſo ſoone take a light fire, and beſides, is readie oftentimes to goe out. There is another experiment by water: for the good and pure Opium beeing put into water, ſendeth forth a certaine miſt from it like a cloud, which floteth even aloft: whereas the corrupt and depraved Opium gathereth into bliſters and bladders, and ſo bubbleth upon the water. And yet there is one way more admirable than the reſt to trie good Opium even by the Sunneſhine in a Summers day: for if it be ſuch as it ought, it will ſweat and reſolve into a thin liquor, like as when it came firſt out of the plant. To conclude, *Meneſicles* is of opinion, That the beſt meanes to keepe and preſerve Opium, is to lay it among Henbane ſeed: but others thinke it better to let it lie among Beans.

Chap. xix.

*Memithum.

*Of the wandering Poppie, and the horned Poppie. Of *Glaucium or Paralium. Of Heraclium or Aphrum. Of the compoſition named Diacodium, and of the Tithimal.*

IN a middle nature betweene the garden Poppie and the wild, is to bee raunged a third kind: which becauſe it commeth up in corne fields, but yet unſowne and of the own accord, we have called Rhœas, and wandering Poppie. Some there be, who ſo ſoon as it is gathered, chew both hearbe and head all whole as it grew, and ſo eat it. Five heads of this Poppie beeing ſodden in three hemines of wine, and ſo taken in drinke, doe both purge the bellie, and alſo bring the patient to ſleepe.

Of theſe wild Poppies, there is one kind called in Greek Ceratitis, of a darke or duskiſh green, growing up with a ſtalke a cubit high; with a groſſe root, & the ſame covered with a thick rind; the heads

A heads or cups wherein the seed lieth, bend like unto a little horne. The leaves are lesse and slenderer of this Poppie than of any other wild. The seed also is small, ripe and readie to be gathered in corne harvest; which beeing taken in drinke, to the quantitie of halfe an Acetable in honied wine, worketh downewards and scoureth the bellie. The leaves being stamped with oyle, and so applied, heale the haw in horse eyes. The root taken to the quantitie of an Acetable, and sodden in two sextars of honied wine, untill halfe bee consumed, is given in drinke for the infirmities of the loines and liver. The leaves applied as a cataplasme with Honey, healeth Carbuncles. Some call this kind, Glaucium, others Paralium: for it groweth within the aire of the sea, or els in some brackish place standing much upon Nitre.

Another kind of these wild Poppies is called of some Heraclion, or of others, Aphron, with
B leaves resembling* Sparrowes, if a man looke a farre off. The root runneth very ebbe and superficially under the greene sord, and the seed seemeth charged with a certaine froth or fome. Herewith linnen cloths in Summer time use to bee bleached, and to get a bright white colour. This hearbe beaten in a morter to the quantitie of one Acetable, and taken in white wine, helpeth the falling sickneesse: for it causeth the patient to vomit. This kind of Poppie is the principall ingredient or Basis to the confection named Diacodium or Arteriacum. The composition or making whereof ensueth in this manner: Take of this Poppie heads, or of any other of the wild sort, one hundred and twentie: let them lie in soke or infused two daies together in three sextares or halfe a gallon of water: and in the same water boile them well. When this decoction hath passed through a strainer or jelly bag, seeth it a second time with Honie up to the height or consistence
C of a Syrrup (that is to say, untill halfe be consumed away) over a soft and gentle fire. Here unto the modern Physicians which came after, put too, of Saffron, of Hypocisthis, Frankincense, Acacia, of each six drams; and in the end, of grosse cuit of Candie one sextar. But this latter composition served onely for a shew and vaine ostentation; for the simple and plaine making of it in old time with Honie and Poppie, and no other addition besides, was as wholesome and profitable as this. But to come againe to our wild Poppies: there is a third kind thereof named Tithymalos, (which some call Mecon, others Paralion) carying a smooth leafe and a white, with a head of the bignesse of a Beane. The time of gathering these Poppies, is when the grape is in the floure: and then the manner is to drie them in the shade. The seed if it bee taken in drinke, the quantitie of halfe an Acetable in meade or honied wine, purgeth the bellie. But what Poppie soever it be, the
D head either greene and fresh, or drie, if it be applied as a liniment to the eies, represseth the flux of waterish humors falling to them, and mitigateth their inflammations. If Opium bee given in pure wine somewhat allaied, presently after the Scorpion hath stung, it is a countrepoyson. Howbeit, some there bee who attribute this vertue onely to the blacke Poppie, namely, if either the heads or leaves be brused and reduced into pouder.

**Struthio similibus, ex Dioscor.* i. like to Struthium. Wherin *Plinie* is foulely overseene to translate it *passerem presentantibus*: because that στρουθιον signifieth the hearbe Struthium, (i. Fullers weed) and the bird called a Sparrow: upon which one absurditie, more follow still to maintaine the same, as commonly it is seene. For that which followeth of bleaching, agreeth to the foresaid hearb in some sort.

Chap. xx.

Of the wild Purcellane or Peplium. Of Coriander and Orach.

E THere is a wild Purcellane also, which they call Peplium: more effectuall, though not much, than the Garden Purcellane; for there be strong and wonderfull properties reported thereof for sundrie uses. First it is holden for certaine, that this hearbe if it bee eaten as meat, dulleth the poyson of venomous arrowes, of Serpents also called* Hæmorrhoids and* Prester: and being laid to the hurt place, draw forth the said poyson. The juice also of this hearb pressed forth and drunke in wine cuit, is a remedy for those that be poysoned with Henbane. Now if the hearb it selfe is not to bee gotten, the seed hath the like effect. Moreover, it is thought to bee singular good for the aquosities gathered within the bodie, and the diseases caused thereby, as Dropsies, &c. for the head-ach; for rheumaticke ulcers also, if it be brused and applied with wine. All other sores likewise it healeth, if it be chewed and laid too with Honey. After the same manner prepared, it is good to bee applied to childrens heads for to temper the heat of the braine, as also to
F their navils when they beare out more than they should. For all vehement distillations of waterie humors into the eyes, as well of old folke as small infants, it is counted singular; for to bee applied to the forehead & temples, together with Barley groats: but if it be laid unto the very eyes, then would the same be tempered with milke and honey. Now if it chaunce that the eies bee readie to fall out of the head, the leaves stamped with the shales of Beane cods, and applied therto,

**So called for that they cause flux of bloud.* **Otherwise named *Dipsades*, because they set one into a burning fire (as it were) and an unquenchable thirst: whereupon they tooke both their names.*

is

is an excellent remedie. A cataplasme made of it, with Barley groats, salt, and vinegre, cureth angrie wheales and blisters that breake out in the skin. The same beeing chewed raw, represseth the cankers in the mouth, and the smelling of the gums: likewise, it assuageth the tooth-ach. The juice of it being well sodden, cureth the sores of the Amygdales, if the mouth and throat be washed therewith. And some put to this collution a little pouder of the stone Murra. And no mervaile, for the very chewing onely thereof doth fasten the teeth that be loose in the head. It doth mitigat the inconvenience of cruditie and indigestion, it strengtheneth the voice, and putteth by thirst. A cataplasme made therewith, having gall nuts and line seed among, of equall quantitie, allaieth the paines and crickes in the nape or chine of the necke. Tempered with Honey and white Fullers cley, it is singular for the accidents that befall to womens breasts. The seed taken with Honey, is very holesome for such as be short winded. Eaten in sallades, it strengtheneth the stomack. If it be laid as a cataplasm [to the bellie and Hypochondriall region] it allaieth the heat of ardent and burning fevers: yea, and in other cases the very chewing of it cooleth the heat of the guts and entrails. It staieth vomits, eaten in vinegre: or taken in drinke with Cumin, it is good for the bloudie flix and other inward impostumes and filthie sores. Beeing first sodden and then eaten, it is singular for those that straine hard upon the stoole, and notwithstanding many provocations and profers, deliver nothing. And whether it be taken in meat or drinke, it is a soveraigne thing for the falling sickenesse. For a shift or immoderat course of womens tearmes, it is given with great successe, the quantitie of one Acetable measure in wine cuit. A liniment made with it and salt, is good for the hote gout and S. *Anthonies* fire. The juice if it be drunken, helpeth the reines and the bladder. It expelleth wormes and such like vermine out of the bellie. A good mitigative, it is of paine, if it be applied as a cataplasme to wounds with oile and Barley groats. It mollifieth the stiffenesse and hardnesse of the sinewes. *Metrodorus* in his booke entituled the *Abridgement or Breviarie of those roots that are to becut up or gathered; gave counsell to give this hearbe to women, newly laid upon child birth, for the immoderate and excessive purgation that many times followeth them. It cooleth the heat of lust, and represseth dreames of wantonnesse. I know my selfe a grand signior in Spaine, father unto a great personage, and one who had been advaunced to the dignitie of a Pretour, who caried ever about him a root of this Peplium hanging at his necke by a lace or small thred, and that for the intollerable paines of the Vvula, whereto he was subject: and never would he leave it off, but when he went into the stove or bain: whereby he found such ease, that hee was never troubled afterward with the said disease. Moreover, I have read in some writers, That if the head bee annointed or well rubbed therewith, a man shall not for a year together find any inconvenience of a rheume distilling from the brain. Howbeit, it is thought that the use thereof will make the eyes dim.

*Ὀπτημένη ἢ ῥιζοτομουμένων.

Concerning Coriander, there is none found growing wild of it selfe without sowing by the hand. But certaine it is, that the very best commeth out of Ægypt: a speciall and peculiar vertue it hath against one kind of serpent or venomous worme, which they call Amphisbæna [for that it seemeth to have an head at both ends] whether it bee inwardly taken in drinke, or outwardly applied. It healeth also other wounds. It cureth the night-foes or chilblanes, the red angry pimples also, if it bee but onely stamped and laid too. There is not a swelling or apostemation gathering to an head, but a cataplasme made with it with Honey and Raisins, either resolveth them, or quickly bringeth to maturation. If it bee no more but stamped with vinegre, it easeth the pushes and biles that breed commonly in the ordinarie emunctories. Three graines of Coriander seed, some prescribe to be eaten before the accesse or fit of a Tertian ague: or more than three to be rubbed upon the forehead. Others there are who thinke, that to the same effect they are to be laid under the bolster and pillow where the patient lieth, before the Sunne rise; and then shall he be sure to misse his fit and be warished for that fever. Indeed, Coriander whiles it is greene, is of great force to coole the heat of agues. A cataplasme thereof made with Honey or Raisins, healeth ulcers also that be corrosive and eat deep into the flesh. In like manner so prepared, it is very good for the privie membres; for burnes and scaldings, for carbuncles, and for the eares. With womans milke it helpeth eyes that water continually. The seed drunke in water, staieth the flux of the bellie and guts: yea, and in case of those violent evacuations upward and downward, through the rage of chollericke humors, being taken in drinke with Rue, it settleth and knitteth the body againe. If the seed of it be drunke with sallet oyle and the juice of a Pomgranat, it chaseth foorth wormes out of the entrails. *Xenocrates* telleth a straunge thing, if it be true, namely, That if a woman

A man drinke one onely graine or ſeed of Coriander, her menſtruall flux will ſtay one day: if twain, they will hold up two daies; and proportionably, looke how many ſeeds ſhee drinketh, ſo many daies ſhall ſhe goe cleare and ſee no token of them. *M. Varro* was of opinion, That if fleſh meat were poudered or corned with Coriander groſſe beaten together with vinegre, it would keepe ſweet, and it were all the Summer long.

As for Orach, there is a wild kind of it growing of the owne accord: a very weed it is and no better, utterly condemned by *Pythagoras*; as if it bred the Dropſie, engendred the Iaundiſe, brought folke to looke ill and pale, and were exceeding hard of digeſtion: and ſo farre hee was
B out of conceit with it, that hee thought nothing would like well and proſper, no not in a garden, where this grew near, but that it would ſenſibly decay and fade. *Dionyſius* and *Diocles* approve this judgement of *Pythagoras*, and ſay moreover, That moſt diſeaſes are bred therby. Nay, they would not have it to be put into the pot to be ſodden, unleſſe it had been waſhed before in many waters: Theſe Phyſicians hold that it is a very enemie to the ſtomack, engendring pimples, freckles, and whelkes. But I muſe and marvell much why *Solon* of Smyrna ſhould write, that it hath much ado to grow and come up in Italie. As for *Hippocrates*, he is not ſo far fallen out with it; for with it and Beets he maketh a decoction (to be injected by the Metrenchyte) to aſſuage the inflammation in the Matrice and the naturall parts of women. *Lycus* of Naples was wont to give it to drinke as a countrepoyſon againſt the green flies Cantharides. And he thought that a very good liniment might be made thereof, either raw or ſodden, to lay unto biles, puſhes, fellons a breeding, and all hard tumors whatſoever. Semblably, that if S. *Anthonies* fire were annointed therewith, beeing
C incorporat with hony, vinegre, and nitre; or if it were applied unto the goutie parts, there would enſue great eaſement. Moreover, in caſe the nailes be growne crooked, uneven and rugged, it is ſaid that it will cauſe one to caſt them without any ulcer and ſore at all. Some there be who preſcribe an Electuarie, made with the ſeed of Orach and Honey, to be given for the Iaundiſe. Alſo, if the windpipes be hoarſe with ſome fell and ſharpe rheume falling downe upon them, or, if the Amygdales on either ſide of the throat bee amiſſe, it is very good to rub thoſe parts therewith. They affirme moreover, That a ſimple decoction of it alone, moveth the bodie downeward; but with Mallows or Lentils, provoketh upward and cauſeth vomit. Finally, to conclude with the wild Orach: it is uſed much to colour the haire black, and for the other abovenamed purpoſes, as well as that of the gardens.

D

Chap. XXI.

Of the common Mallow. Of the Mallow Malopum. Of the marſh mallow or Althæa. Of the common Docke: the ſoure Docke or Sorrell: of the water Docke: of the tall Docke called Patience: and laſtly of that Docke with the long root, called Bulapathum.

ORaches were not ſo much diſcommended, but on the contrarie ſide Mallowes be as highly praiſed, as well that of the garden as the wild. Two kinds there bee of the garden Mallowes; diſtinguiſhed both, by the largeneſſe of their leaves. The greater of thoſe that grow
E in gardens, the Greekes call Malopum; the other is ſuppoſed to be named Malachum, for that it doth mollifie and ſoften the bellie. Of the wild ſort, that which carrieth a broad leafe and white roots is called *Althæa, and of ſome, Ariſtalthæa, for the excellent vertues that it hath in Phyſicke. This propertie have Mallows, To enrich and fatten any ground, whereſoever they be ſowne or ſet. But this mariſh Mallow Althæa, is more effectuall than the reſt againſt all wounds by ſharpe prickes or thornes, and principally againſt the ſting of Scorpions, Weſpes, and ſuch like, as alſo the biting of the Hardiſhrew mouſe. Nay, whoſoever be throughly rubbed or annointed beforehand with any Mallow whatſoever, ſtamped with oile; or doe but carie it about them, they ſhall not be ſtung or bitten at all. As for the leafe of Mallowes, if it bee laid upon a Scorpion, it will be ſtreightwaies benummed. Moreover, good countrepoyſons they be all. A liniment made
F of them being raw together with nitre, draweth forth all prickes or ſtings remaining within the fleſh: but if leafe and root be ſodden together and ſo drunke, it repreſſeth the poyſon of the venomous fiſh called the ſea-Hare: but ſome ſay it muſt be caſt up and vomited againe, or elſe it doth no good. Certes, ſtraunge and wonderfull things bee ſpoken as touching the operation of Mallowes, over and above thoſe alreadie rehearſed. But this paſſeth all the reſt, That if a man or

* Κατὰ τὰ ἀλθαίνειν. To cure or heale.

woman

woman ſup off a ſmall draught (thought it were no more but halfe a cyath) every day of the juice G
of any mallow, it skills not which, he ſhall be free from all diſeaſes and live in perfit health. True
it is, that if they be putrified and reſolved in chamber-lye, they will heale all the ſcurfe & running
ſcalls in the head: but if they be tempered with hony, a collution made therof cureth the cankers
of the mouth: and a lavature repreſſeth all tettars, ringworms, & any ſuch wild fire running upon
the skin. A decoction of the root, cleanſeth the head of dandruffe, if it be waſhed therewith; and
ſetteth the teeth faſt that were looſe. Take the root of that Mallow which riſeth up with one only
ſtem, pricke the gumbs therwith about the tooth pained; doe this (I ſay) untill the ach be gone.
The ſame root reduced into a liniment, with the faſting ſpittle of man or woman, and applyed
accordingly; reſolveth the Kings evill, diſpatcheth the ſwelling kernels behind the ears, and diſ-
cuſſeth biles and puſhes, without any breaking of the skin or making ulcer. The ſeed of mal- H
lowes if it be taken in thicke wine, delivereth the Patient from phlegmaticke humors, from the
rheume, and the heaving of the ſtomacke making offer to caſt and cannot. The root wrapped
faſt and tied within a locke of blacke wooll, preventeth the evill accidents that may befall unto
womens breaſts. The ſame ſodden in milk & taken after a ſuppling ſort (in manner of a ſupping)
for five daies togither, cureth the cough. And yet *Sextius Niger* ſaith, they be huttfull to the ſto-
macke: And **Olympias* of Thebes affirmeth, That if women uſe it with gooſe greaſe, they ſhall
not goe their full time with child. Others doe write, That if women take an handfull of Mallow
leaves in oile and wine, they ſhall bee throughly purged in their due times. This is knowne for a
truth and reſolved by all that write or make profeſſion of Phyſicke, That a woman in labour, if
ſhee ſit upon Mallows ſtrewed under her ſtoole, ſhall bee delivered with greater ſpeed and expe- I
dition: but then muſt they bee taken away preſently after that ſhee is laid, for feare that the very
matrice follow after the child. An ordinary practiſe it is of ſage and diſcreet midwives, To give
unto women in travaile faſting, a ſmall pint of the juice of Mallows ſodden in wine: & yet thoſe
that cannot containe but ſhed their naturall ſeed, are enjoyned to take Mallow ſeed bruſed, and
ſo to bind it to their arme. Moreover, ſo good and favourable naturally be Mallows to the game
of love, as if they grew for nothing els: inſomuch as *Democrates* doth affirme, That if the ſeed
of that Mallow which runneth up in one ſtalke, bee reduced into powder and ſtrewed upon that
part of a woman which Nature hath hidden, ſhee will bee ſo wood after the companie of a man,
as ſhe will never be ſatisfied nor contented with embracing. The like effect (ſaith hee) there will
enſue, if three roots thereof bee bound neare to the place of nature. Alſo, that a decoction of K
Mallows miniſtred by way of clyſter, is a ſingular injection to cure the bloudie flix, or exulcera-
tion of the guts; as alſo the extraordinarie and bootleſſe deſire to the ſeege. In like manner, a
fomentation thereof is very good for other accidents befalling to the ſeat or tuill. The juice of
Mallows is given warme, the quantitie of three cyaths, to melancholique perſons that bee trou-
bled in mind; and of foure, to thoſe that be ſtarke mad indeed and beſides themſelves. A whole
hemina of the juice drawne and preſſed from Mallows boiled, is given at one time to thoſe that
be ſubject to the falling ſickneſſe. The ſame beeing reduced into a liniment, is to good purpoſe
applyed warme unto thoſe, who are troubled with the ſtone and gravell, with wind cholique and
ventoſities, with the crampe alſo or cricke that doth draw their necks backward. The leaves be-
ing ſodden in oyle, are laid with good ſucceſſe in manner of a cataplaſme, upon the hot fretting L
humor called S. *Anthonies* fire: alſo to places ſcorched, burnt, or ſcalded: but for the accidents
and Symptomes concurrent with wounds, they bee rather laid raw with crumbs of bread. The
juice of Mallows boiled, is comfortable to the ſinews, the bladder, and the fretting or grinding
of the guts. Mallows being either eaten, or their decoction miniſtred by way of injection with a
metrenchyte, mollifieth the ſaid tumors in the matrice. The juice of Mallows well ſodden, either
taken in drinke or applyed by way of fomentation, enlargeth the Vretere conduits, and giveth
good and eaſie paſſage for the urine. The root of Althæa is more effectuall to all theſe infirmities
and purpoſes above-named, than of any other Mallow; but eſpecially in caſe of convulſions,
cramps, and ruptures. If it be ſodden in water, it bindeth the belly. Boiled in white wine and ap-
plyed as a cataplaſme, it reſolveth the ſwelling kernels, commonly called the Kings evill; thoſe M
alſo that appeare behind the eares; yea and the inflammations of the paps and breaſts. As for
the biles or riſings called Pani, the leaves of Althæa or the mariſh Mallow ſodden in wine and
brought to the forme of a liniment, doe diſcuſſe and rid away. The ſame, after they be drie, and
ſodden in milke, cure the cough, how tough and ſhrewd ſoever it were, and that moſt ſpeedily.

Hippocrates

* A woman Phyſician, who wrate of Phyſick, or at leaſt-wiſe a midwife of good authoritie.

A *Hippocrates* gave counsell to them that were wounded, and for losse of bloud exceeding thirstie, for to drinke the juice of Althæa roots sodden. Hee saith moreover, That the root it selfe emplastred with honey and rosin, is good for wounds, bruises, dislocations, and swellings: comfortable also to muscles, sinews, and joynts. He gave it likewise to those that were troubled with difficultie of taking wind, and with wheezing; for the dysenterie also or bloudie flix, to be drunken in wine. A wonderfull thing of this root, that if it bee put into water, and the same let to stand abroad in the open aire, the water will gather to a thickenesse and cruddle, yea turn white it will like milke. To conclude, the newer and fresher that Althæa is, the more effectuall you shall find it in operation.

Touching the Docke, the proprieties thereof are not unlike to those of the marsh Mallow. There is a wild kind thereof, which some call Oxalis in Greeke, [*i.* wild Sorrell, or Soure-docke] B this hearbe resembleth very neare that of the Garden, in regard of the sharpe pointed leaves; in colour like the white Beet, having a very small root: our countreymen name it in Latin Rumex; other Lapathum Cantherinum: This hearbe being incorporat with hogs grease, is singular to mollifie all the swelled kernels, which some call the King evill. A second sort there is, which commonly is called Oxylapathum, *i.* Sharpe pointed Docke; this commeth yet neater to the garden Docke than the former: for it hath leaves sharper at the point and redder, and groweth not but in marish grounds. There is another kind of Docke comming up in the very water (as some say) Hydrolapathum. Yet is there one more called * Hippolapathum, bigger than the garden Docke or Sorrell; white also, and of a more fast and pulpous substance. As for all the wild Dockes or Sorels, they be holden medicinable to cure the stings of Scorpions; and whosoever C hath any of them about him, is secure from the sting or pricke of Scorpions. The root, if it bee sodden in vinegre and strained, the juice thereof if the mouth be washed therewith, helpeth the teeth-ach: and if the same be taken in drinke, it cureth the jaundise. The seed of this hearbe remooveth the tough humors bedded in the stomacke, how hard impacted soever they be. The roots of Patience have this peculiar propertie, To cause the nailes to fall off that grow rugged and uneven. The seed taken to the weight of two drams in wine, riddeth away the bloudy flix. The seed of the sharpe Docke being washed in raine water, is singular good for those that reach and cast up bloud, if there be added thereto as much Acacia as the bignesse of a Lentill. There be most excellent Trochisques made of the leaves and root thereof, with the addition of nitre and some little quantitie of * convenient liquor, to incorporat and unite them: and these must be D infused and dissolved in vinegre, at the time that they are to be used. As touching the garden Sorrell, there is a liniment made thereof, which beeing applyed in manner of a frontall to the forehead, cureth the distillation of the waterie humors to the eyes. The root is singular for the wens or impostumes called Melecerides, and likewise of the Leprie. The decoction in wine is as good for the stone and gravell; as also to resolve the Kings evill, and the swelling kernels behind the ears. If the seed be drunke in wine, it helpeth the splene and the tumors therof: the bloudie flix likewise, the stomachicall flux, and the vaine desire to the stoole without effect. But for all these purposes, the juice of the Docke is more effectuall. Over and above, it breaketh wind upward, it provoketh urine, and discussеth the cloud and mist that troubleth the eyes. If this hearbe be put under the bathing tub within the baine, or otherwise if the bodie be annointed with a li- E niment thereof without oile, before one enter into the bath, it taketh away the itch. If the root be but chewed onely, it fasteneth the teeth that shake in the head. The same root sodden in wine, stayeth the flux of the belly, and bindeth it; and yet the leaves make the bodie soluble. Finally, (because I would willingly omit nothing) *Solon* hath made mention of another Docke, called Bulapathum, nothing different from other Dockes, but that the root runneth deeper into the ground, which, if it be taken in wine, cureth the bloudie flix.

* *i.* Patience, or Monks Rheubarb.

* *Jure*, haply for *Thure*, *id est*, Frankincense, according to *Cornarius*.

Chap. XXII.

Of three kinds of Senvey: of Horehound, and wild running Thyme: of water Cresses: of water Mints, otherwise called Thymbræum: of Lineseed, and Bleets. F

THe hearbe Senvey, whereof there be three kinds (as I have alreadie observed in my treatise of Garden plants) *Pythagoras* hath placed in the highest ranke of those Simples that fume up aloft: for there is not a thing that sooner biteth one by the nose, and pierceth & moun-

teth more quickly into the brains than doth Senvey. The ſeed thereof [commonly called mu- G
ſtard ſeed] being ſtamped, & with vinegre reduced into a liniment, cureth the ſting of Serpents, and namely the prick with the Scorpion. It hath beſides, a ſingular vertue to mortifie and kill the venomous qualitie of muſhroms. If it bee but held in the mouth untill it melt and reſolve, or otherwiſe be gargariſed with honeyed water, it draweth waterie fleame out of the head. Beeing chewed, it eaſeth the toothach. For the falling downe of the Vvula, a gargariſme made of it with vinegre and honey, is excellent. There is not a medecine ſo ſingular for the ſtomacke and all the infirmities thereof, ne yet for the lungs. Being eaten at meat, it doth looſen ſuperfluous fleame, and cauſeth a man to reach and fetch it up with eaſe; yea and to take his wind and breath at libertie. In like manner, being taken warme with the juice of Cucumber, it cureth the falling ſickneſſe. It purifieth the ſenſes: it purgeth the head by ſmelling: it keepeth the body ſoluble: it pro- H
voketh womens monethly fleures, and urine. A cataplaſme made therewith and applied accordingly, helpeth them that be in a dropſie: ſo it doth thoſe that be ſubject to the falling ſickneſſe, but then muſt it be ſtamped with three parts of Cumin and figs. If it be tempered with vinegre and held to the noſe of ſuch women as with the riſing of the mother ſeeme to be ſtrangled and to lie in a traunce, it raiſeth them up againe: in like ſort, it awaketh thoſe who be in a fit of the lethargie: howbeit, in this caſe it is good to put thereto the ſeed of Seſeli of Candie, which they call Tordilion. But ſay that the Patients bee in ſo deepe a ſleepe in this drowſie diſeaſe, that by ſuch meanes they will not ſtart up and be raiſed; then take muſtard-ſeed and figgs, temper them with vinegre into a cataplaſme, apply the ſame to the *legs or the *forehead or region of the braine rather. It hath a cauſticke or burning qualitie, and being applyed in forme of a liniment I
to any part, it raiſeth pimples: by which means, it cureth the old inveterat pains of the breaſt, the ach of the loins, the haunch, and hucklebone, the ſhoulders, or any part of the bodie where need is that the offenſive humors ſetled deepe within, ſhould tranſpire and be drawne outwardly to an iſſue. Now for that the nature thereof is to bliſter, in caſe the Patient be timerous, and feare ſome extreame operation of that burning qualitie that it hath, it may be applied to the part affected between a doubled linnen cloth: otherwiſe, if the place be very thicke and hard, it would be laid too without any figs at all. Moreover, there is good uſe of Senvie with red earth, for to make the haire come againe which is falne; for ſcabs and ſcurfe, for foule morphew or the leproſie, the lowſie diſeaſe, the univerſall crampe that cauſeth the bodie to ſtand ſtiffe and ſtarke, as it were all of one peece without joynt; alſo the particular cricke which ſetteth the necke backward, that K
it cannot ſtir. An inunction made with it and honey, cureth the eyelids that be not ſmooth, but rugged and chapped; yea and clarifieth the eyes which be overcaſt with a muddie miſt.

ad revulſionem.
ad derivationem.

As touching the juice of Senvie, it is after three ſorts drawne: the firſt, being preſſed foorth, it is let to take a heat in the Sun gently by little and little, within an earthen pot. Secondly, there iſſueth forth of the ſmall ſtems or braunches that it hath, a white milkie liquor, which after it is dried and hardened in that manner, is a ſingular remedie for the tooth-ach. Where note by the way, that the ſeed & root both, after they have been well ſteeped and ſoked in new wine, are ſtamped or brayed together: now if one doe take in a ſupping as much of this juice thus drawne, as may be held in the ball of the hand; it is very good to ſtrengthen the throat and chaws, to fortifie the ſtomacke, to corroborat the eyes, to confirme the head, and generally to preſerve all the L
ſenſes in their entire. And verily I know not the like holeſome medicine againe, to ſhake off and cure the lazie and lither fevers that come by fits many times upon women. Senvie alſo being taken in drinke with vinegre, breaketh the ſtone and expelleth it by gravell. There is an oyle alſo made of muſtard-ſeed, infuſed and ſteeped in oyle, and ſo preſſed out; which is much uſed to heat and comfort the ſtiffeneſſe of ſinews occaſioned by cold: to warme alſo and bring into temper the through cold lying in the loins, haunches, and hucklebones, whereof commeth the Sciatica. Of the ſame nature and operation that Senvey is, Adarca is thought to be (according as I have touched in the diſcourſes of plants and trees growing wild in the woods;) which is a certein fomie ſubſtance ariſing and ſticking in the barke of certaine Canes, under their very leaves and tufts that they beare in the head. M

Concerning Horehound, which the Greekes call Praſion, others Linoſtrophon, ſome Philopes or Philochares, an hearbe ſo well knowne and ſo common, that it needs no deſcription; many Phyſicians have commended to be as medicinable as the beſt. And in truth, the leaves and ſeed both, being beaten into powder, are excellent good for the ſtinging of ſerpents, for the

paine

A paine of the breaſt and ſides, and ſingular for an old cough. Moreover, the juice is right ſoveraigne for thoſe who have their lungs periſhed and doe reach up bloud, if the braunches thereof gathered and bound up into bunches, be ſodden firſt in water with the graine called Panicke, for to mitigat in ſome ſort the unpleaſant harſhneſſe of the ſaid juice. A cataplaſme of Horehound applied unto the Kings evill with ſome convenient fat or greaſe, reſolveth the hard kernels. Some preſcribe a receit for the cough in this manner; Take the ſeed of greene Horehound as much as a man may comprehend with two fingers, ſeeth it with a ſmall handfull of the wheat called Far, putting thereto a little oile and ſalt, and ſo ſup off the decoction faſting Others hold, That without all compariſon there is not a medecine in the world like to the juice of Horehound and Fennell togither, firſt drawne by way of expreſſion to the quantitie of three ſextars, and afterwards
B boiled to the conſumption of a third part untill there remaine but two ſextars: then to this decoction there muſt bee put one ſextar of honey, and all ſodden againe to the conſumption of one third part more, unto the heigth of a ſyrup; whereof one ſpoonfull every day taken in a cyath of water, is a drinke that in this caſe hath no fellow. Horehound ſtamped and mixed with honey, is of wonderfull effect being applied to the privie parts of a man, for any griefes incident thereto. Laid with vinegre unto ringworms, tettars, and any ſuch running wildfires, it purgeth and riddeth them cleane away. A holeſome medecine it is to be applied as a cataplaſme, to ruptures, convulſions, ſpaſmes, and cramps of the ſinews. Taken in drinke with ſalt and vinegre, it eaſeth the belly and maketh it laxative. It provoketh womens tearms, and ſendeth out the after-birth. The powder of it drie, mixed with hony, is of exceeding great efficacie to ripen a drie cough, to cure gan-
C grenes, whitflaws, and wertwalls about the root of the nails. The juice dropped into the ears with honey, or ſnuffed up into the noſe, cureth their infirmities: it ſcoureth away the jaundiſe alſo and purgeth chollericke humours. And for all kind of poiſons, few hearbs are ſo effectuall as Horehound; for it ſelfe alone without any addition, cleanſeth the ſtomacke and breaſt, by reaching and fetching up the filthie and rotten fleame there engendred. If it be taken with honey and the floure-de-lis root, it provoketh urine. Howbeit, where there is daunger of any exulceration in kidneys or bladder, it muſt be uſed with great warineſſe, if it be uſed at all. Moreover, the juice of Horehound is ſaid to clarifie the eye-ſight. *Caſtor* putteth downe two ſorts of Horehound, to wit, the blacke and the white; but he ſetteth greater ſtore by the white than the other. He preſcribeth to take an emptie egg-ſhell, and to put into it the juice of Horehound and honey, by even portiD ons; and when the ſaid egg is warm, to miniſter the ſame by way of clyſtre or ſyringe, promiſing us, that the ſaid injection will breake all inward impoſtumes; and when they be broken, cleanſe and heale them throughly. Alſo a liniment (ſaith hee) made of Horehound ſtamped togither with old ſwines greaſe, cureth all wounds occaſioned by the biting of mad dogs.

Touching running Thyme, ſome thinke it is called Serpyllum in Latin, *à ſerpendo*, [*i.* of creeping] becauſe it runneth and creepeth by the ground: a propertie indeed of the wild kind, and eſpecially among rocks and ſtonie grounds. The garden Serpyllum, which commeth of ſeed, creepeth not, but groweth to the heigth of foure fingers breadth. The wild Thyme which commeth up of the owne accord, liketh and thriveth better, having whiter leaves and branches than the other: this (I ſay) is thought to have a ſpeciall vertue againſt ſerpents, and namely the CenE chris, the Scolopendres alſo as well of the ſea as the land; likewiſe the Scorpions, in caſe the ſprigs and leaves thereof be ſodden in wine, and ſo taken inwardly: If the ſame be burned, it yeeldeth a perfume, which with the very ſent chaſeth them all away. A ſingular power it hath againſt all venomous creatures of the ſea. Boiled in vinegre, and reduced into a liniment with oile of roſes, it cureth the head-ach, if it be applied as a frontall to the forehead and temples. In like manner it helpeth the phrenſie and lethargie: but if it be given to drinke, the weight onely of foure drams, it eaſeth the wrings & torments of the belly, it giveth free paſſage with eaſe to the urine, it reſolveth ſquinancie or bringeth them to maturitie, and ſtaieth vomits. And if one drinke it with water, it is excellent good for the opilation, heat, inflammations, and other accidents of the liver. The leaves, to the weight of foure Oboli, are given in vinegre, for the inflation and hardF neſſe of the ſplene. If it be beaten to powder and given in two cyaths of vinegre and honey, it is thought a good medecine for them that ſpit and reach up bloud.

The wild Siſymbrium or Creſſes, called of ſome Thymbræum, groweth to a foot in heigth and no higher. That which commeth up in waterie places, is like unto garden Creſſes: but both ſorts are effectuall againſt all pricks and ſtings of Hornets, and ſuch like creatures. That which

Some take it for water Mints or Horſemint.

ſpringeth up in drie ground, hath the narrower leafe of the twain, and carrieth a ſweet ſmell with it; whereupon it is commonly plaited among other odoriferous hearbs in chaplets and guirlands: But both the one and the other allayeth head-ach: likewiſe they doe ſtay the flux of waterish humors which diſtill into the eyes. Some put crums of bread thereto; others ſeeth them alone in wine, and uſe the decoction. Beeing reduced into a cataplaſme, and ſo applied everie night and taken off in the day time, it healeth within foure times laying on, the angrie chilblanes and bloudy-fals that trouble the feet in the night ſeaſon: yea and taketh away the ſpots and pimples ariſing in womens faces, which marreth their beautie, whether it be eaten with meat in ſubſtance, or the juice onely taken in drinke: it ſtayeth vomits, yexes, wringings, gnawings, and the diſſolution or feebleneſſe of the ſtomacke, which cauſeth inordinat flux. Women going with child muſt take heed how they eat Siſymbrium, unleſſe the fruit of their bodies bee dead within them; for if it be but applyed outwardly, it will ſend it forth. If one drinke it with wine, hee ſhall find that it provoketh urine: and the wild kind over and beſides, expelleth the ſtone and gravell. Such as had need to wake and watch, namely, thoſe that be given to drowſineſſe and lethargie, will be raiſed from their ſleepe and throughly wakened, if it be diſtilled aloft upon their heads with vinegre. G

Line-ſeed is employed with other matters in divers medecines to many uſes, but of it ſelfe alone it cleareth the skin of womens faces, taketh out ſpots, freckles, pimples, wems, and molls that be eye-ſores, if it be applied as a liniment thereto. The juice thereof quickeneth and helpeth the eyeſight. With Frankincenſe and water, or elſe with myrrhe and wine, it repreſſeth the violent flux of humors to the eyes. Reduced into a cataplaſme, with honey, greaſe, or wax, and ſo applied, it reſolveth the ſwelling kernels behind the ears. The meale thereof in manner of drie barley groats, if it be ſtrewed upon the ſtomacke, helpeth the weakneſſe and queaſineſſe thereof, which maketh it readie to overturne. If it be ſodden in water and oile, and ſo reduced into a liniment with Aniſe ſeed, and applied, it cureth the ſquinancie. It muſt be well dried and parched at the fire, in caſe it be given to ſtay the running out of the belly. As for thoſe that be troubled with the ſtomachicall flux, or the exulceration of the guts; a cataplaſme thereof with vinegre and ſo applied, bringeth them preſent eaſe. For the griefe of the liver, it ought to be eaten with raiſons. This ſeed is paſſing good for lohoches or electuaries to be made therof, in the cure of the Phthiſicke, and conſumption of the lungs. Lineſeed ground into floure and mingled with nitre or ſalt, or els with lie aſhes put thereto, is of great operation to mollifie the hardneſſe of muſcles, ſinews, joynts, and the nape or chine of the necke; yea and to mitigat the inflammations of the membrans or pellicles of the braine. The ſame applyed with figs, is an excellent maturative, and ripeneth all impoſtumes. But if it be laid too with the root of the wild Cucumber, it draweth forth any thing that ſticketh within the bodie, even the very ſpills and ſhivers of broken bones. The ſaid powder or flower made of Lineſeed ſodden in wine, and applied as a cataplaſme, ſtaieth cancerous ulcers that they run no farther: the ſame alſo with hony ripeneth apoſtemations of flegmaticke humors, and the breaking forth of the ſmall pocks. Being mingled with an equall portion of garden Creſſes, it cureth the rough nailes that grow untowardly, and fetcheth them off without any inconvenience. Incorporat with roſin and *myrrhe, and ſo laid to the cods, it helpeth their ſwelling and inflammations: it is good alſo for ruptures of all ſorts; and with water it healeth the Gangrene. Take of Lineſeed and Fenigreeke ſeed, of each one ſextar, ſeeth them in honeyed water, and make a liniment thereof, it eaſeth the paine of the ſtomacke. Lineſeed miniſtred in a clyſtre with oile and honey, cureth the deadly maladies of the guts and breaſt parts. H I K L

* *Murrha.*

Bleets ſeeme to be dull, unſavorie, and fooliſh Woorts, having no taſt nor quickneſſe at all: whereupon *Menander* the comicall Poet, bringeth in a husband upon the ſtage, who to reproch his wife for her ſottiſhneſſe and want of ſenſe, giveth her the tearme of Bleet. And in very truth, good it is for little or nothing, and altogither hurtfull unto the ſtomacke. It troubleth and diſquieteth the belly, inſomuch as it driveth ſome that uſe to eat it, into the daungerous diſeaſe Cholera, working both upward and downward without any ſtay. And yet ſome ſay, that if it be drunke in wine, it is good againſt Scorpions, and ſerveth for a pretie liniment to be applied unto the agnels or corns of the feet; yea and maketh a reaſonable good cataplaſme with oile, for the ſplene, and paine of the temples. Finally, *Hippocrates* is of opinion, that much feeding of Bleets, ſtaieth the monthly courſe of womens tearms. M

CHAP.

A

Chap. XXIII.

Of Meu, and Fenell, as well Gentle, named Fœniculum; as Wild, which is called Hippomarathrum, or Myrſineum: of Hempe, and Fenell-geant: and of Thiſtles and Artichoux.

MEu or Spicknell is not found in Italy, unleſſe it be in ſome Phyſicians garden, and thoſe are very few that ſow or ſet it. Howbeit, there be two kinds thereof: the one, which is the better, is commonly called Athamanticum, of Prince *Athamas* the firſt inventour of this hearbe, as ſome thinke; but according to other, becauſe the beſt Meu is found upon Athamas, a mountaine in Theſſaly. Leafed it is like to * Aniſe, riſing up with a ſtem otherwhile two cubits high; putting foorth many roots, and thoſe blackiſh, whereof ſome run very deepe into the ground: neither is this Meu ſo red altogither as the other. If the root thereof be beaten into powder, or otherwiſe ſodden and ſo drunke in water, it cauſeth urine to paſſe abundantly: in that order alſo it doth reſolve wonderfully the ventoſities gathered in the ſtomack. It aſſuageth mightily the wrings and torments of the guts: it openeth the obſtructions, and cureth other infirmities of the bladder and the matrice. Applyed with honey, it is very good for the joynts. Beeing laid as a cataplaſme with Parſley to the bottom of the belly of little children, it cauſeth them to make water.

B

* *Aniſo*, rather *Ariſtho*, Dill, after *Dioſcor.* whereupon it is called of ſome, wild Dill.

As for Fenell, the Serpents have woon it much credit, and brought it into name, in this regard, That by taſting thereof (as I have alreadie noted) they caſt their old skin, and by the juice that it yeeldeth doe cleare their eyes: whereby we alſo are come to know, that this hearb hath a ſingular * propertie to mundifie our ſight, and take away the filme or web that overcaſteth and dimmeth our eyes. Now the onely time to gather and draw the ſaid juice out of Fennell, is when the ſtalke beginneth to ſwell and wax big: which, after it is received, they uſe to drie in the Sun, and as need requireth, make an inunction with it and honey togither. There is of this juice to be had in all places: howbeit, the beſt is made in Iberia, partly of the gum that iſſueth or frieth (rather) out of the ſtalke [being brought neare to the fire;] or els drawne from the ſeed while it is freſh and greene. There is another making thereof out of the roots, by way of inciſion, preſently after that Fenell beginneth to ſpring and put foorth out of the ground, when winter is done.

C

* Such medicines be called ἐξυδερικὰ.

D There is another kind of wild Fenell, named by ſome Hippomarathrum, by others Myrſineum. Larger leaves this hath than that other of the Garden, and thoſe more ſharpe and biting at the tongues end: it groweth taller alſo, and ariſeth with a maine ſtem as big as a mans arme, & hath a white root. It groweth in hot grounds and thoſe that be ſtonie. *Diocles* maketh mention of another kind yet of wild Fenell, with a long and narrow leafe, bearing ſeed reſembling Coriander. As touching the garden Fenell, and the medicinable vertues that it hath, it is holden, That the ſeed, if it be taken inwardly in wine, is a ſoveraign drinke for the pricke of Scorpions or ſting of other Serpents. The juice thereof, if it be inſtilled by drops into the ears, killeth the worms there. The hearbe it ſelfe carrieth ſuch ſway in the kitchin, that lightly there is no meat ſeaſoned, nor any vinegre ſauce ſerved up without it. Moreover, for to give a commendable and pleaſant taſt unto

E bread, it is ordinarily put under the bottome-cruſt of our loaves, when they be ſet into the oven. The ſeed doth bind and corroborat a weake and feeble ſtomack, yea if it be taken in a very ague. Being beaten into powder and drunke in cold water, it ſtaieth the inordinat heaving of the ſtomacke, and the vaine proffers to vomit. For the lights and the liver, it is the moſt ſoveraign medecine of all other. Being taken moderatly, it ſtaieth the looſeneſſe of the belly, and yet provoketh urine. The decoction thereof appeaſeth the wrings of the guts: and taken in drinke, it filleth womens breaſts, and maketh them to ſtrout againe with milke, when it is gone upon ſome occaſion. The root taken in a Ptiſane of husked barly, purgeth the reins: ſo doth the ſyrrup made with the juice or decoction thereof; yea and the ſeed. The root ſodden in wine, is ſingular good for the dropſie and the crampe. A liniment made with the leaves and vinegre, and ſo applied, aſ-

F ſuageth hot ſwellings and inflammations: and the ſaid leaves have vertue to expell the ſtone of the bladder. Fenell taken inwardly any way, encreaſeth ſperme or naturall ſeed. A moſt friendly and comfortable hearbe it is to the * privie parts, whether it be by fomenting them with a decoction of the roots boyled in wine, or by applying a liniment unto them made with the ſaid roots ſtamped and incorporat with oile. Many doe make a cerot thereof with wax, for to lay unto tu-

* either ſwolne, exulcerat, or itching.

mours to places bruiſed and made black and blew with ſtripes. Alſo they uſe the root either prepared with the juice of the hearb, or otherwiſe incorporat with honey, againſt the biting of dogs: and taken in wine, againſt the worme called Milleped. But for all theſe purpoſes beforeſaid, the wild Fennell is of greater operation than the garden Fennell: but this principall vertue it hath, mightily to expell the ſtone and gravell. If it bee taken with any mild and ſmall wine, it is very good for the Bladder, [and namely the Strangurie] alſo it provoketh womens tearmes that bee either ſuppreſſed or come not kindly away: to which purpoſe the ſeed is more effectuall than the root. But whether it bee root or ſeed, it would bee uſed in a meane and meaſure: for it is thought ſufficient to put into drinke at once, as much as two fingers will take up. *Petridius*, who wrote the booke entituled *Ophiaca, and *Myction* likewiſe in his Treatiſe named *Rhizotorumena, were of opinion, That there is not a better countrepoyſon againſt the venome of Serpents, than wild Fennell. And certes, *Nicander* himſelfe hath raunged it, not in the loweſt place of ſuch medicines.

*Of Serpents.
*Of cutting up or gathering roots.

Concerning Hempe, at firſt it came up without ſowing even in the very woods, and caried a more duskiſh greene leafe, and the ſame rougher. It is ſaid, that if men eat the ſeed, it will extinguiſh utterly their own ſeed. The juice of greene Hempe-ſeed, being dropped into the ears, driveth out any wormes or vermin there engendred, yea, and what earewigs or ſuch like creatures that are gotten into them: but it will cauſe head-ach withall. So forcible is this plant, that (by report) if it bee put into water, it will make it to gather and coagulat. Which is the reaſon, that if horſes have the gurrie, they ſhall find helpe by drinking the ſaid water. The root if it bee boiled in water, doth mollifie and ſoften joints that be ſhrunke up: it aſſuageth the paines likewiſe of the Gout, and ſuch like wicked humors that fall downe upon any part. Being yet greene and reduced into a liniment and ſo applied, it is good for burns or ſcaldings, but it muſt bee often remooved and chaunged before it be drie.

As for Ferula or Fennel-geant, it carieth a ſeed like to Dill. That kind which riſeth up in one ſtem, and then devideth it ſelfe and braunceth forth in the head, is ſuppoſed to bee the female. The ſtalkes are good to be eaten boiled: and the right ſauce wherein they bee ſerved up, to give them a more commendable taſt, is new wine and honey tempered accordingly; and ſo prepared, they bee good for the ſtomacke. Howbeit, if one eat over-liberally of them, they cauſe head-ach. Take the weight of one denier Romane of the root, beat it to pouder and drinke it in two cyaths of wine, you ſhall find it a ſoveraigne medicine againſt the ſtinging of Serpents: but you muſt not forget mean while to applie the root it ſelfe (ſtamped into a cataplaſme) unto the hurt place. After this manner it helpeth the wringing torments of the guts. Make a liniment or unguent thereof and vinegre together, annoint the bodie therewith; it reſtraineth the immoderat ſweats that burſt out, although the patient bee ſicke of a fever. The juice of Ferula, if it be eaten (to the quantitie of a Beane) doth looſen the bellie. The ſmall tendrils or braunches of greene Ferula, is good for all the infirmities abovenamed. Take tenne graines of Ferula ſeed in pouder with wine, or ſo much of the pith within the ſtalke, it ſtancheth bloud. Some hold it good to give a ſpoonefull thereof every fourth, ſixth, and ſeventh day after the change of the Moone, to prevent the fits of the falling ſicknes. The nature of all theſe Fennell geants is moſt adverſe to Lampreies, for if they be touched never ſo little therewith, they will die upon it. *Caſtor* was of opinion, That the juice is excellent good to cleare the eyeſight.

And for as much as I have ſpoken ſomewhat of Thiſtles and Artichoux (how they ſhould be ordered) in my treatiſe of other garden plants, I will put off no longer to diſcourſe alſo of their properties and vertues in Phyſicke. Of the wild Thiſtles there be two kinds: the one more full of braunches, ſhutting out immediatly from the root; the other riſeth up in one entire ſtem, and the ſame is thicker withall. Both of them have but few leaves, and thoſe beſet with prickles: they beare heads pointed with ſharpe prickes round about in manner of caltrops. Howbeit, there is one kind, which is the Artichoke, which putteth forth a purple flower amid thoſe ſharpe pointed prickes, which very quickly turns into an hoarie downe, readie to flie away with every puffe of wind: and this Thiſtle the Greeks call Scolymos. The juice of the Artichoke ſtamped and preſſed out before it bloume, bringeth haire againe thicke, if the naked place bee annointed therewith. The root either of Thiſtle or Artichoke, ſodden in water and ſo eaten, is as good as a ſhooing-horne to draw on pot after pot, for theſe great bibbers that deſire nothing more than to be thirſtie and to make quarell to the cup. It ſtrengtheneth the ſtomacke, and (if wee may beleeve it) is

ſo

A ſo appropriat unto the matrice of women, that it diſpoſeth & prepareth it to conceive men children. In good faith *Chæreas* the Athenian and *Glaucias* eſpecially, who ſeemeth to be moſt curious in deſcribing the nature and properties of theſe Thiſtles or Artichokes, give out no leſſe. To conclude, if one chew them in his mouth, hee ſhall find that they will cauſe a ſweet breath.

Chap. xxiiii.

The compoſition of a Treacle, which was the ordinarie and familiar medicine of king Antiochus.

B BVt before that wee goe out of the garden, and leave the hearbes there growing, I thinke it good to ſet downe one confection made of them; thought to be a moſt excellent and ſoverajgne Antidote or preſervative againſt the poyſon of all venomous beaſts whatſoever: and which for the excellencie thereof was engraven in ſtone upon the forefront of the temple dedicated to *Æſculapius*, in this manner following: Take of wild running Thyme, the weight of two deniers; of Opopanax and *Meu, of each the like quantitie; the ſeeds of Dill, Fennell, Ameos, and Perſeley, of each the weight of ſix deniers; of Ervill floure twelve deniers or drams. Let theſe bee beaten into pouder, and finely ſearced: and when they bee incorporat in the beſt wine that may bee had, they ought to bee reduced into the forme of Troſches, every one weighing a victoriat or halfe denier. When occaſion is to uſe this compoſition, diſſolve one of theſe Troſches in three cyaths of wine, and drink it. This is that famous Treacle or countrepoyſon, which great C *Antiochus* the king was wont (by report) to take againſt all venomes or poyſons whatſoever.

*Mei, non Mili. Ex Galen.

D THE XXI. BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

The nature of Flowers, and namely thoſe of Chaplets and Guirlands. E

Chap. i.

The wonderfull varietie of Flowers.

F CAto in his Treatiſe of Gardens, ordained as a neceſſary point, That they ſhould be planted and enriched with ſuch hearbes as might bring foorth flowers for Coronets and Guirlands. And in very truth, their diverſitie is ſuch, that unpoſſible it is to decipher and expreſſe them accordingly. Wherby we may ſee that more eaſie it was for dame Nature to depaint and adorne the earth with ſundrie pictures, to beautifie the fields (I ſay) with all manner of colors, by her handie work (eſpecially where ſhe hath met with a ground to her mind, and when ſhe is in a merrie humor and diſpoſed to play and diſport her ſelfe) than for any man in the world to utter the ſame by word of mouth. Wherein certes her admirable providence ſhe hath ſhewed, principally in

in this, That whereas ſhe hath given unto thoſe fruits of the earth which ſerve for neceſſities and G
the ſuſtentation of man, long life and a kind of perpetuitie, even to laſt yeares, and hundreds of yeares; theſe flowers of pleaſure and delight, good only to content the eye or pleaſe the ſence of ſmelling, ſhee would have to live and die in one day. A great document and leſſon for us men in generall to learne, How all things whatſoever that flouriſh moſt lovely and be gaieſt in ſhew, ſooneſt fade and are gone ſuddainely. But to come againe to the varietie of flowers aforeſaid, together with their divers mixtures: verely there is no painter with all his skill able ſufficiently with his penſill to repreſent one lively guirland of flowers indeed; whether they bee plaited and intermedled in manner of noſegaies one with another, or ſet in rankes and rewes one by another; whether they bee knit and twiſted cordwiſe and in chaine-worke of one ſort of flowers, either to wind and wreath about a chaplet, bias, or in faſhion of a circle, or whether they bee ſorted round H
into a globe or ball, running one through another, to exhibite one goodly ſight and entire uniformitie of a croſſe Garland.

Chap. II.

Of Guirlands, Coronets, Chaplets, and Noſegaies made of floures. Who deviſed firſt the ſorting and ſetting of ſundrie flowers. The firſt invention of the Coronet or Guirland, and the name of it in Latine, Corollæ, and wherupon it was ſo called.

THe Coronets or Guirlands uſed in auncient time, were twiſted very ſmall, and thereupon I
they were called Strophia, *i.* Wreaths: from whence came alſo womens gorgets and ſtomachers to be named Strophiola. As for the word Corona, a Coronet or Guirland, long it was firſt ere it came to bee vulgar and commonly taken up, as a tearme challenged either by prieſts and ſacrificers in their divine ſervice, or victorious captaines in their glorious triumphes. But thoſe Guirlands or Noſegaies being made of flowers, were called in Latine Serta or Serviæ *à ſerendo, i.* of ſorting and ſetling together. The manner of which plaiting and broiding of heatbs and flowers, the auncient Greekes tooke no pleaſure in: for at the beginning they uſed to crowne with branches onely of trees, thoſe brave men who had woon the priſe in their ſacred Games and ſolemne Tournois or exerciſes of activitie. But afterwards they began to beautifie and enrich their chaplets of triumph with ſundrie flowers intermingled together. And (to ſay a truth) the Si- K
cyonians paſſed in this feat of ſorting together one with another flowers of ſweet ſavor and pleaſant colour, in making of poſies & guirlands. Howbeit, the example of *Pauſias* the cunning painter, and *Glycera* the artificiall maker of ſuch chaplets, ſet them firſt a worke. This painter was wonderfully enamoured upon the ſaid *Glycera*, and courted her by all meanes that hee could deviſe: among the reſt, he would ſeem to counterfeit and repreſent lively with his penſill in colours, what flowers ſoever ſhe wrought and ſet with her fingers into Guirlands; and ſhee againe ſtrived avie to chaunge and alter her handy work every day, for to drive him to a non-plus at the length, or at leaſtwiſe, to put him to his ſhifts: in ſo much, as it was a verie pleaſant and woorthie ſight, to behold of one ſide the workes of Nature in the womans hand, and on the other ſide the artificiall cunning of the foreſaid painter. And verely there are at this day to bee ſeene diverſe L
painted Tables of his workmanſhip: and namely, one picture above the reſt, entituled *Stephanoplocos, wherein he painted his ſweet heart *Glycera*, twiſting and braiding Coronets and Chaplets, as her manner was. And this fell out to be, after the hundreth Olympias was come and gone by juſt account.

*A Garland-maker.

Now when theſe Guirlands of flowers were taken up and received commonly in all places for a certaine time, there came ſoone after into requeſt thoſe Chaplets which are named Ægyptian, and after them Winter Coronets, to wit, when the earth affourdeth no flowers to make them; and thoſe conſiſted of home ſhavings, died into ſundrie colours. And ſo in proceſſe of time, by little and little, crept into Rome alſo the name of Corollæ, as one would ſay, Pettie Guirlands; for that theſe Winter Chaplets at firſt were ſo prettie and ſmall: and not long after M
them, the coſtly Coronets and attires Corollaria, namely, when they were made of thin leaves and plates of Latton, either guilded or ſilvered over, or elſe ſet out with golden and ſilver ſpangles, and ſo preſented.

Chap.

Chap. iii.

Who was the first that exhibited in publicke shew a Guirland or Chaplet of gold and silver-foile. How highly Coronets were esteemed in old time. Of the honour done to Scipio. Of plaited Coronets. And one notable Act of Queene Cleopatra.

Crassus the rich was the first man, who at the solemne Games and Plaies which he set out in Rome, gave away in a brave shew, Chaplets of gold and silver, resembling lively flowers and leaves of hearbes. Afterwards, such Coronets were adorned with ribbands also, and those were added as pendants thereto for more honour and state: a devise respective to those *Tuscane Guirlands and Coronets, which might have no such ribbands or laces hanging unto them but of gold. And in truth those labels a long time were plaine and without any other setting forth save onely the bare gold: untill *P. Claudius Pulcher* came in place, who exhibited in his publicke shewes, the said labels wrought, chased, and engraven; yea, and hee garnished the said plates of gold with glittering and twinckling spangles besides. Howbeit, were these Coronets never so rich and precious, yet those Chaplets woon and gotten at the solemne Games for some worthie feats of activitie performed, caried alwaies the greater credit & authoritie. For to gaine this prise, the Grand-siegniors and great men of the citie thought it no scorne to enter themselves in proper person into the publicke place of Exercise to trie maistries: yea, and thither they sent every man his servant and slave. Hereupon grew these Ordinances, specified among the laws of the twelve Tables in these words: *Whosoever winneth a Guirland, either himselfe in person, or by his monie, goods and chattels, is to be honored in regard of his vertue.* And certes who maketh doubt, but what Prise or Coronet either slaves or horses have obtained, the same by vertue of this law, should be reputed as gotten by the money and goods of the maister or owner of the said horses or slaves? But what honour might this be which is thus atchieved by such a Chaplet? Mary that which is right great, namely, That without all fraud and contradiction, not onely the partie himselfe who woon it, should be crowned therewith after his death, both whiles his bodie lay under bourd within house, and also all the way that it was caried forth to the place of sepulture or funerall fire; but even his parents likewise, both father and mother [if they were then living.] Certes, such Guirlands otherwise though they were not woon at games of prize, but only made for pleasure and pastime, might not come abroad ordinarily, nor bee commonly worne; for the law was very strict and severe in this case. We read that *L. Fulvius Argentarius* in the time of the second Punicke warre, upon an information or speech given out, That in the open day time he only looked forth of a gallerie which he had in the publicke Forum or common place at Rome, with a Garland of Roses upon his head; was by authoritie of the Senate committed to prison, and was not enlarged before the end of the warre. *P. Munatius* having taken from the head of *Marsyas* a Chaplet of flowers, and set it upon his owne; and thereupon beeing commaunded to ward, by the Triumvirs, called unto the Tribunes of the Commons for their lawfull favour and protection: but they opposed not themselves against this proceeding, but deemed him woorthie of this chastisement. See the discipline and severitie at Rome, and compare it with the looseneſſe of the Athenians, where young youths ordinarily followed revels and bankets, and yet in the forenoon would seeme to frequent the schooles of Philosophers, to learne good instructions of vertuous life. With us verily we have no example of disorder in this behalfe, namely, for the abuse of Garlands; but onely the daughter of *Augustus Cæsar* late Emperor, and canonised as a god at Rome, who complaineth of her in some letters of his yet extant, and that with grone and greefe of hart, to be given to such roiot and licentious looseneſſe, that night by night she would seeme to adorn with Guirlands the statue and image of *Marsyas* the Minstrell. Wee doe not read in Chronicles, that the people honoured in old time any other with a Coronet of flowers, but onely *Scipio* surnamed *Serapio*, for the neare resemblance that he had to his baylie or servant so called, who dealt under him in buying and selling of Swine: in which regard he was wonderous well beloved of the Commons in his Tribuneship, as bearing himselfe worthie of the famous and noble house of the *Scipioes* surnamed *Africani*. Howbeit, as well descended and beloved as he was, yet when he died, he left not behind him in goods sufficient to defray the charges of his funerals. The people therefore made a collection, and contributed by the poll every man one *As: and so tooke order by

*These Guirlands or Chaplets were called *Hetruscæ*. For so saith *Tertullian. Præferuntur etiam illis Hetruscæ. Hoc vocabulum est Coronarii, &c.* i. to be Ædile.

*i. three farthings.

by a generall expence, that he ſhould be honourably enterred: and as his corpes was carried in G
the ſtreets to his funerall fire, they flung flowers upon his bere out of every window all the way. In
thoſe daies the manner was to honour the gods with Chaplets of flowers, and namely thoſe that
were counted patrones and protectours, as well of citties and countries, as of privat families; to
adorne and beautifie therewith the tombes and ſepulchres of thoſe that were departed, as alſo to
pacifie their ghoſts, and other infernall ſpirits: farther than thus, there was no uſe of ſuch Guir-
lands allowed. Now of all thoſe Chaplets, moſt account was made of them wherein the flowers
were platted. We find moreover, That the Sacrificers or Prieſts of *Mars* called *Salij*, were wont
in their ſolemnities and feaſts (which were very ſumptuous) to weare Coronets of ſundrie flowers
ſowed together. But afterwards, Chaplets of Roſes were onely in credit and reputation: untill
that in proceſſe of time, the world grew to ſuch ſuperfluitie and ſumptuous expence, that no H
Guirlands would pleaſe men, but of the meere pretious and aromaticall leafe Malabathrum: and
not content herewith, ſoone after there muſt be Chaplets fet from as farre as India, yea, and be-
yond the Indians, & thoſe wrought with needle work. And the richeſt Coronet was that thought
to be, which conſiſted of the leaves of Nard: or els made of fine ſilke out of the Seres countrey,
and thoſe of ſundrie colours, perfumed beſides & all wet with coſtly and odoriferous ointments.
Further than thus they could not proceed: and ſo our daintie wanton dames reſt contented hi-
therto, and uſe no other Chaplets at this day. As for the Greekes verely, they have written alſo
ſeverall Treatiſes concerning flowers and Garlands: and namely, *Mneſtheus* and *Callimachus*,
two renowmed Phyſicians, have compiled bookes of thoſe Chaplets that be hurtfull to the brain
and cauſe head-ach. For even herein alſo lieth ſome part of the preſervation of our health, con- I
ſidering that perfumes do refreſh our ſpirits, eſpecially when we are ſet at table to drinke liberal-
ly and to make merrie, whiles the ſubtile odour of flowers doth pierce to the braine ſecretly ere
we bee aware. Where, by the way, I cannot chuſe but remember the deviſe of Queene *Cleopatra*,
full of fine wit, and as wicked and miſcheevous withall: For at what time as *Antonie* prepared
the expedition and journey of Actium againſt *Auguſtus*, and ſtood in ſome doubt and jealouſie
of the ſaid Queen; for all the faire ſhew that ſhe made of gratifying him and doing him all plea-
ſure, he was at his taſter, and would neither eat nor drinke at her table without aſſay made. *Cleopa-
tra* ſeeing how timorous he was, and minding yet to make good ſport and game at his needleſſe
feare and fooliſh curioſitie, cauſed a Chaplet to bee made for *M. Antonius*, having before dipped
all the tips and edges of the flowers that went to it in a ſtrong and ranke poyſon, and beeing thus K
prepared, ſet it upon the head of the ſaid *Antonie*. Now, when they had ſitten at meat a good
while, and drunke themſelves merrie, the Queen began to make a motion and challenge to *An-
tonie*, for to drinke each of them their Chaplets; and withall began unto him in a cup of wine ſea-
ſoned and ſpiced (as it were) with thoſe flowers which ſhe ware her owne ſelfe. Oh the ſhrewd and
unhappie wit of a woman when ſhe is ſo diſpoſed! who would ever have miſdoubted any danger
of hidden miſcheefe herein? Well, *M. Antonie* yeelded to pledge her: off goeth his own Guir-
land, and with the flowers minced ſmall, dreſſeth his owne cup. Now when he was about to ſet it
to his head, *Cleopatra* preſently put her hand betweene, and ſtaied him from drinking, and with-
all uttered theſe words, My deere heart and beſt beloved *Antonie*, now ſee what ſhee is whom ſo
much thou doeſt dread and ſtand in feare of, that for thy ſecuritie there muſt wait at thy cup and L
trencher extraordinarie taſters; a ſtrange and new faſhion ywis, and a curioſitie more nice than
needfull: lo, how I am not to ſeeke of means and opportunities to compaſſe thy death, if I could
find in my heart to live without thee. Which ſaid, ſhe called for a priſoner immediatly out of the
Goale, whom ſhe cauſed to drinke off the wine which *Antonie* had prepared for himſelfe. No ſoo-
ner was the goblet from his lips againe, but the poore wretch died preſently in the place. But to
come againe to the Phyſicians who have written of flowers beſides thoſe abovenamed. *Theo-
phraſtus* among the Greekes hath taken this argument in hand. As for our countreymen, ſome
*Of flower gathering. have entituled their bookes *Anthologicon: but none of them all, ſo farre as ever I could find,
wrote any Treatiſe concerning flowers. Neither is it any part of my meaning at this preſent to
make Noſegaies, or plat any Chaplets, for that were a frivolous and vaine peece of worke: but as M
touching flowers themſelves, I purpoſe to diſcourſe ſo much as I thinke and find to bee memora-
ble and worth the penning. But before I enter into this Treatiſe, I am to advertiſe the Reader that
we Romanes are acquainted with very few garden flowers for Guirlands, and know in manner
none but Violets and Roſes.

CHAP.

A

Chap. iiii.

Of the Roſe emploied in Coronets. The diverſe kinds thereof: and where it is ſet and groweth.

THe plant whereupon the Roſe dooth grow, is more like a thorne or buſh than a ſhrub or any thing elſe. For it will come of a very brier or Eglantine alſo, where it will caſt a ſweet and pleaſant ſmell, although it reach not farre off. All Roſes at their firſt knitting ſeeme to bee encloſed within a certaine cod or huske full of graines: which ſoone after beginneth to ſwell and grow ſharpe pointed into certaine greene endented or cut buds: then by little and little as
B they wax red, they open and ſpread themſelves abroad, containing in the middeſt of their cup as it were, certaine ſmall tuffets or yellow threads ſtanding out in the top. * Vſed they are exceeding much in Chaplets and Guirlands. As touching the oile Roſat, made by way of infuſion, it was in requeſt before the deſtruction of Troy, as may appeare by the Poet *Homer*. Moreover, Roſes enter into the compoſition of ſweet ointments and perfumes. Over and beſides, the Roſe of it ſelfe alone as it is, hath medicinable vertues, and ſerveth to many purpoſes in Phyſick. It goeth into emplaſters and collyries or eyeſalves, by reaſon of a certain ſubtile mordacitie and penetrative qualitie that it hath. Furthermore, many delicats and daintie diſhes are ſerved up to the table, either covered and beſtrewed with Roſe leaves, or bedewed and ſmeared all over with their juice; which doth no harme to ſuch viands, but give a commendable taſt thereto. Wee at
C Rome make moſt account of two kinds of Roſes above the reſt, to wit, thoſe of Prænеſte, and of Capua. And yet ſome have raunged with theſe principall Roſes, thoſe of Miletum, which are of a moſt lively and deepe red colour, and have but twelve leaves in a flower at the moſt. The next to them are the Trachinian Roſes, not ſo red all out. Then thoſe of Alabanda, which bee of a baſer reckoning, with a weake colour enclining to white. Howbeit the meaneſt and worſt of all, is the Roſe *Spineola. Moſt leaves in number it hath of all others, and thoſe in quantitie ſmaller. For this would be known, that Roſes differ one from another either in number of leaves, more or leſſe;
D or els that ſome be ſmooth, others rough and prickie: alſo in colour, and ſmell. The feweſt leaves that a Roſe hath, be five: and ſo upward they grow ever ſtill more and more, untill they come to thoſe that have a hundred, namely about Campaine in Italie, and neare to Philippos a cittie in Greece, whereupon the Roſe is called in Latine Centifolia. Howbeit, the territorie of Philippi hath no ſuch ſoile as to bring forth theſe hundred-leafe Roſes: for it is the mountaine Pangæus neare adjoining, upon which they naturally do grow, with a number of leaves I ſay, but the ſame ſmall: which being removed and tranſplanted by the neighbour borderers, doe mightily thrive in another ground, namely, about Philippi aforeſaid, and prove much fairer than thoſe of Pangæus. Yet are not ſuch Roſes of the ſweeteſt kind, that are ſo double and double again; no more than thoſe which are furniſhed with the largeſt & greateſt leaves. But in one word, if you would know a ſweet ſmelling Roſe indeed, chuſe that which hath the cup or knob underneath the flour, rough, and prickie. *Cæpio* who lived in the time of *Tiberius* the Emperour, was of opinion, That the hundred-leafe Roſe had no grace at all in a Guirland, either for ſmell or beautie; and therfore
E ſhould not be put into Chaplets, unleſſe it were laſt in manner of a tuft, to make a ſur-croiſt, or about the edges as a border: no more than the Roſe Campion, which our men call the Greeke Roſe, and the Greekes name Lychnis, which lightly groweth not but in moiſt grounds, and never hath more than five leaves; the flower exceedeth not the bigneſſe of a certaine Violet, and carieth no ſent or ſavour at all. Yet is there another Roſe named Græcula: the flowers & leaves wherof are folded and lapped one within another, neither will they open of themſelves, unleſſe they be forced with ones fingers, but looke alwaies as if they were in the bud, notwithſtanding, that the leaves when they be out, are of all others largeſt. Moreover, there be Roſes growing from a buſh that hath a ſtalke like a Mallow, and beareth leaves reſembling thoſe of the Olive: and this kind is named in Greeke Moſcheúton. Of a middle aſſiſe betweene theſe abovenamed, is the Roſe of
F Autumne, commonly called Coroneola. And to ſay a truth, all the ſaid Roſes, unleſſe it bee this Coroneola, and that which groweth upon the brier or Eglantine beforenamed, have no ſmell with them in the whole world naturally, but are brought to it by many deviſes and ſophiſtications: yea, & the very Roſe it ſelfe, which of the owne nature is odoriferous, carieth a better ſmell in ſome one ſoile than in another. For at Cyrene they paſſe all other for ſweetneſſe and pleaſant ſavour;

*Vſus eius propè nimius eſt.

*Our white Roſe.

ſavour: which is the reaſon, that the oile Roſat, and ointment compounded thereof, is moſt excellent there of all other places. And at Carthagena in Spaine there bee certaine timely or haſtie Roſes that blow and floure all Winter long. The climat alſo and temperature of the aire maketh for the ſweetneſſe of the Roſe: for in ſome yeares yee ſhall have them leſſe odoriferous than in others. Over and beſides, the place would be conſidered: for the Roſes be ever more ſweet growing upon drie than wet grounds. And indeed the Roſe buſh loveth not to be planted in a fat and rich ſoile, ne yet upon a veine of cley, no more than it liketh to grow neare unto rivers where the bankes be overflowed, or in a wateriſh plot; but it agreeth beſt with a light & looſe kind of earth, and principally with a ground full of rubbiſh, and among the ruins of old houſes. The Campain Roſe bloweth earely, and is very forward. The Mileſian commeth as late. Howbeit, thoſe of Præneſte bee longeſt ere they give over bearing. As touching the manner of planting them: as the ground would bee delved deeper than for corne, ſo a lighter ſtitch had need bee taken than for Vine ſets. Thoſe that be ſowed of ſeed, bee lateſt of all others ere they come up, and thrive moſt ſlowly. [Now lieth this ſeed in the cup or huske thereof juſt under the very flower, and is covered all over with a downe.] And therefore it is better to ſet ſions cut from the ſtalke, or els to ſlip the little oilets and ſhoots from the root, as the manner is in reeds & canes. After which ſort they uſe to ſet, yea, and to graffe one kind of a prickie & pale Roſe-buſh, putting forth very long twigs and ſhoots like to thoſe of the Cinq-foile Roſe, which is one of the Greekiſh kind. There is no Roſe-buſh whatſoever, but proſpereth the better for cutting, pruning, yea and burning. Moreover, it loveth to be removed and tranſplanted as well as the Vine, and by that meanes will it ſoon come to the proofe and beare beſt. As for the ſets or ſions, they ought to be foure fingers long or more above the ground, when they be firſt put into the earth, to wit, after the occultation of the Brood-hen ſtar. Then would they bee tranſlated in Februarie, at what time as the Weſterne wind Favonius is aloft, and replanted with a foot diſtance one from another: but they require to be ever and anone digged about the root. They that deſire to have Roſes blow betimes in the yeare, before their neighbours, uſe to make a trench round about the root, a foot deepe, and poure hote water into it, even at the firſt when the bud of the Roſe beginneth to be knotted.

G H I

Chap. V.

Of Lillies three kinds: and the manner of planting or ſetting them.

NExt to the Roſe, there is not a fairer flower than the Lillie, nor of greater eſtimation. The oiles alſo and ointments made of them both, have a reſemblance and affinitie one to the other. As touching the oile of Lillies, the Phyſicians call it Lirinon. And if a man ſhould ſpeake truly, a Lillie growing among Roſes, becommeth and beautifieth the place very well; for it beginneth then to flower when Roſes have halfe done. There is not a flower in the garden again that groweth taller than the Lillie, reaching otherwhile to the heigth of three cubits from the ground: but a weake and ſlender necke it hath, and carrieth it not ſtreight and upright, but it bendeth and noddeth downeward, as being not of ſtrength ſufficient to beare the weight of the head ſtanding upon it. The flower is of incomparable whitenes, devided into leaves, which without-forth are chamfered, narrow at the bottome, and by little and little ſpreading broader toward the top: faſhioned all together in manner of a broad mouthed cup or beaker, the brims and lips whereof turne up ſomewhat backeward round about and lie very open. Within theſe leaves there appeare certaine fine threds in manner of ſeeds: and juſt in the middeſt ſtand yellow chives, like as in Saffron. As the colour of the Lillie is two-fold, ſo carieth it a double ſmell; one in the leaves which reſembleth the cup aforeſaid, and another in thoſe ſtrings or chives; how beit the difference is not much. Now for to make the oile and ointment of Lillies, the leaves alſo are not rejected.

K L

There is an hearbe named in Latine Convolvulus [*i.* Withwind] growing among ſhrubs and buſhes; which carrieth a flower not unlike to this Lillie, ſave that it yeeldeth no ſmell, nor hath thoſe chives within: for whitenes they reſemble one another very much; as if Nature in making this flower, were a learning and trying her skill how to frame the Lillie indeed.

M

Now Lillies be ſet and ſowed after the ſame manner in all reſpects as the roſes, and grow as many waies. This vantage moreover they have of the roſes, That they will come up of the very liquor that diſtilleth and droppeth from them, like as the hearb Aliſanders: neither is there in

the

A the world an heath more fruitfull, insomuch as you shall have one head of a root put forth oftentimes five hundred bulbs or cloves.

There is besides, a red Lillie, which the Greeks in their language call Crinon; and some name the floure of it Cynorrhodon. The excellent Lillie of this kind groweth in Antiochia and Laodicea, cities both in Syria: the next to that is found in Phaselis. In a fourth place, is to be set the Lillie growing in Italy. There are besides, purple Lillies, which otherwhiles rise up with a double stem: these differ from the rest onely in the pulpous root which they have; and the same carrie a greater bulbe in one entire head, and no more: such they call Daffodils. A second sort there is of these Daffodils, with a white floure, and a purple cup or bell within. Herein differ Daffodils from Lillies, For that the Daffodill leaves be toward the root, & namely those in the best mountains of Lycia; whereas in Lillies they put forth in the stalke. The third kind agreeth in all points B with the rest, but that the cup in the mids of the floure is of a grasse green. But all the sort of them be late ere they floure; and begin not to blow before the rising of the star Arcturus, and about the Autumne Æquinox. But such are the monstrous devises of some fantasticall spirits, that they invented forsooth a new kind of artificiall * colouring and dying of Lillies: for which purpose, in the moneth of Iuly they gather their stems, when they begin to wither, and hang them up in the smoke to drie. Now when the knobs or heads of their roots looke once bare and are shot out from the said stalks, (which commonly falleth out in the month of March) they infuse & steepe them in the lees of deepe red wine, or some Greekish wine, for to sucke and drinke in the colour thereof: which done, they set them in little trenches, whereinto they poure certaine hemines or C pints of the said wine: and by this means become the Lillies aforesaid, purple. A straunge and wonderfull matter, that any root should take a tincture so deepe, as to bring forth a floure of the same die and colour.

* *Insidendi.*

CHAP. VI.

Of the Violet and the Marygold: of Bacchar, and Combretum: of Asara-Bacca, and Saffron.

IN the third ranke of floures, bee raunged the * Violets; whereof be many kinds: to wit, the purple, the yellow, and the white. All of them may be set of plants, like as woorts and garden D pot-hearbs. But of those which naturally come up and grow of their owne accord in leane grounds, and those exposed to the Sun, the purple [March] Violets, they have a broader leafe than the rest, and those spring immediatly from the root, which is pulpous and fleshie. These alone be distinct from the rest by a Greeke name, and are called * Ia; whereupon purple cloth is likewise of them named Ianthina. But of those which are sowne or set by hand, the * yellow beare the greatest name above all other. These floures be distinguished into divers kinds, namely, into the Tusculan Violets; and those of the Sea, which have a broader leafe but are not so sweet as others. Some smell not at all, to wit, the * Calathian Violet with the small leafe: a floure this is that Autumne yeeldeth, whereas the rest doe flourish in the Spring.

* Note that *Viola* in *Plinie* and other authors, reacheth to our Stocke-gillofres, walflours, & other flours, as to the purple March Violet.

* Ἰὰ ἑστὸν ἰῶ.

* *Cheiri*, or Wall flours.

Next unto the Violet, are the Marigolds, all of one colour. In number of leaves this floure E passeth the Sea-violet aforesaid, which never exceedeth five: but in recompence of that defect, this Violet goeth beyond the Marigold in sweet savour, for the Marigold carrieth a strong sent with it and an unpleasant. As for the hearb called * Scopa regia, it hath a smell nothing milder than it; although the leaves (to say a truth) doe smell, and not the floures.

* Some take it for a kind of Fox-glove.

* Which some take for yellow Yarrow.

Bacchar is named by some Rustick-Nard: this plant hath nothing in it odoriferous and fenting well, but the root. Of which root (as *Aristophanes* an auncient Comicall Poët testifieth in one of his Comœdies) they were woont in old time to make sweet perfumes and odoriferous compositions for their ointments: whereupon some there be who call the root Barbarica, but falsly; for deceived they are. The savour that this root doth cast, draweth very neare to the sent of Cinamon. It loveth a leane and light soile, and in no wise commeth up in a moist ground.

F As touching the hearb named Combretum, it resembleth the same very much; howbeit the leaves be passing small and as slender as threads, but the plant it selfe is taller than Bacchar. Wel, rest we must not in the description of these hearbs and floures onely, but also wee are to reforme and correct their error, who have given to Bacchar the name of Nard-Rustick: For there is another hearb properly so called, to wit, that which the Greekes name Asaron, [*i.* Asara-Bacca, or

Fole-foot;] a plant far different from Bacchar, as may appeare by the deſcription therof, which I have ſet downe among the ſundrie kinds of Nardus. And verely I doe find, that this plant is named * Aſarum, becauſe it is never uſed in making of guirlands and chaplets. G

* ἀπὸ τῦ ασίρειν, i. ornare: ἀ, ςερητ, becauſe it adorneth no chaplets.

Concerning Saffron, the wild is the beſt. To plant it within any garden in Iuly, is held no good husbandrie, for it will not quit coſt, conſidering there is never a quarter ſet therewith, but it asketh a *ſcruple more in expence, than the fruit or encreaſe commeth unto, when all the cards be told. For to have Saffron grow, you muſt ſet the cloves or bulbous heads of the root: and being thus planted, it prooveth larger, bigger, and fairer than the other: howbeit ſooner far it doth degenerat and become a baſtard kind: neither is it fruitfull and beareth chives in everie place, no not about Cyrene, where the goodlieſt floures of Saffron in the world are to be ſeen at all times. The principall Saffron groweth in Cilicia, and eſpecially upon the mountaine Corycus there: next to it, is that of Lycia, and namely upon the hill Olympus: and then in a third degree of goodneſſe, is reckoned the Saffron Centuripinum in Sicilie: although ſome there bee, who attribute the ſecond place unto the Saffron of the mount * Phlegra. Nothing is ſo ſubject to ſophiſtication as Saffron: and therfore the onely triall of true Saffron indeed, is this, If a man lay his hand upon it, hee ſhall heare it to cracke as if it were brittle and readie to burſt: for that which is moiſt (a qualitie comming by ſome indirect meanes and cunning caſt) yeeldeth to the hand and makes no words. Yet is there another proofe of good Saffron, If a man after hee have handled it, reach his hand preſently up to his mouth, and perceive that the aire or breath therof ſmiteth to his face and eyes, and therewith fretteth and ſtingeth them a little; for then he may be ſure that the Saffron is right. There is a kind of garden Saffron by it ſelfe; and this commonly is thought beſt, and pleaſeth moſt, when there appeareth ſome white in the mids of the floure, and thereupon they name it Dialeucon; whereas contrariwiſe this is thought to be a fault and imperfection in the Corycian Saffron, which is chiefe: and indeed the floure of it is blacker than any other, and ſooneſt fadeth. But the beſt ſimply in any place whereſoever, is that which is thickeſt and ſeemeth to like beſt, having beſides ſhort chives like haires: the worſt is that which ſmelleth of muſtineſſe. *Mutianus* writeth, that in Lycia the practiſe is to take it up every ſeventh or eigth yeere, and remoove it to a plot of ground well digged and delved to a fine mould; where, if it be replanted, it will become freſh againe and young, whereas it was readie before to decay and degenerat. No uſe there is (in any place) of Saffron floures in garlands; for the leaves are ſmall and narrow, in manner almoſt of threads. Howbeit with wine it accordeth paſſing well, eſpecially if it be of any ſweet kind: and being reduced into powder and tempered therewith, it is commonly ſprinkled over all the theatres, and filleth the place with a perfume. It bloometh at the ſetting or occultation of the ſtar Vergiliæ, and continueth in floure but few daies: and the leafe driveth out the floure. In the mids of winter, it is in the verdure and all greene, and then would it be taken up and gathered: which done, it ought to bee dried in the ſhadow; and the colder that the ſhade is, ſo much the better. For the root of Saffron is pulpous and full of carnoſitie; and no root liveth ſo long above ground as it doth. Saffron loveth a-life to be trampled and trode upon under foot: and in truth, the more injurie is done unto it for to mar it, the better it thriveth: and therefore neare to beaten paths, and wells much frequented, it commeth forward and proſpereth moſt. H I K L

* Phlegræo: but Turnebus readeth Ægæo, according to Dioſcor.

" Ad ſcrupuli ſingula: which if you refer to a drachme, ſignifieth a third part leſſe; but if to an ounce, the 24 part.

Chap. VII.

Of the floures uſed in old time about coronets and guirlands: the great diverſitie in aromaticall and ſweet ſmelling Simples. Of Saliunca and Polium.

SAffron was (no doubt) in great credit and eſtimation, during the flouring eſtate of Troy: for certes, the Poët *Homer* highly commendeth theſe three floures, to wit, Melilote, Saffron, and Hyacinth. Of all odoriferous and ſweet ſenting ſimples, nay of all hearbs and floures whatſoever, the difference conſiſteth in the colour, the ſmell, and the juice. And note this to begin withall, that ſeldome or never you ſhall meet with any thing ſweet in ſent, but it is bitter in taſt; and contrariwiſe, ſweet things in the mouth, be few or none odoriferous to the noſe: And this is the reaſon that wine refined, ſmelleth better than new in the lees; and ſimples growing wild, have a better ſavour far than thoſe of the garden. Some floures, the farther they be off, the more pleaſant is their ſmell: come nearer unto them, their ſent is more dull and weaker than it M

was

A was, as namely Violets. A freſh and new gathered roſe caſteth a better ſmell afar off than neare at hand; let it be ſomewhat withered and drie, you ſhall ſent it better at the noſe than farther off. Generally, all floures be more odoriferous and pleaſant in the Spring, than at any other ſeaſon of the yeare; and in a morning they have a quicker and more piercing ſent, than at any houre of the day beſides: the nearer to noone, the weaker is the ſmell of any hearbe or floure. Moreover, the floures of new plants are nothing ſo ſweet as thoſe of an old ſtocke: and yet I muſt needs ſay, that floures ſmell ſtrongeſt in the mids of Summer. As for Roſes and Saffron-floures; they caſt the pleaſanter ſmell, if they be gathered in cleare weather, when it is faire & drie above head: and in one word, ſuch as grow in hot countries, bee ever ſweeter to ſmell unto, than in cold climats. Howbeit, in Ægypt the floures have no good ſent at all, by reaſon that the aire is foggie
B and miſtie, with the dewes riſing from the river Nilus. Moreover, certain floures there be which are ſweet and pleaſant enough, yet they ſtuffe and fill the head. Others, ſo long as they be freſh and green, have no ſmell at all, for the exceſſive abundance of moiſture within them; as we may perceive in Fenigreeke, which the Grecians call Buceros. Many floures caſt a quicke and lively ſmell, & yet are not without good ſtore of juice but moiſt enough, as Violets, Roſes, and Saffron: but ſuch as are deſtitute of ſuch moiſture, and yet their ſent is piercing and penetrant, they all of them be of a ſtrong ſavour alſo, as for example the Lillie of both kinds. Sothernwood and Marjeram have a hot and ſtrong ſavour. Some hearbs there be which yeeld no ſmell nor goodneſſe at all, but in their floure onely, for all their other parts be dull and good for nothing, as Violets and Roſes. Of garden hearbs, the ſtrongeſt of ſmell be alwaies drie, as Rue, Mints, and Ach or
C Parſley: likewiſe are all ſuch as grow in drie places. Some fruits, the elder they bee and the longer kept, the ſweeter is their ſavor, as Quinces: and the ſame Quinces *de gard* ſmell better when they be gathered, than if they hung ſtill upon the tree, and ſo preſerved. Others there are, that unleſſe they be broken, bruiſed, rubbed, and cruſhed, have no ſmell: and ye ſhall have thoſe that caſt no ſent at all, unleſſe their rind or barke be taken off: as alſo ſuch, as except they be caſt into the fire and burnt, yeeld no ſavour, as Frankincenſe and Myrrhe. Furthermore, all floures being bruiſed, are more bitter than they were untouched and unhandled. Some, after they be drie, reteine their odour longeſt, as the Melilot. There are that make the place more ſweet where they grow, as the flour-de-lis; inſomuch as it perfumeth the whole tree (whatſoever it is) the roots wher-of it toucheth. The hearbe Heſperis ſmelleth more by night than day, wherupon that name was
D deviſed. * There are no living creatures which yeeld from their bodies a ſweet ſavour, unleſſe we give credit to that which hath been reported of the Panthers.

Furthermore, this would not be paſſed over, as touching the difference of odoriferous plants and their flours in this reſpect; that many of them are never emploied to the making of guirlands and chaplets, as namely the Floure-de-lis, and Nard Celticke, Saliunca, which notwithſtanding they yeeld both of them an excellent ſavour, yet are not uſed that way. But as for the * Floure-de-lis, it is the root onely thereof that is comfortable for the odour; as if Nature had made the plant it ſelfe to ſerve only for Phyſick uſes, and compoſitions of ſweet perfumes. The beſt Floure-de-lis is that which groweth in Illyricum or Sclavonia; and not in all parts thereof, not (I ſay) in
E the maritime coaſts, but farther up into the maine, among the mountains and forreſts of Drilo and Narona. The next to it in goodneſſe, commeth out of Macedonie, and it hath the longeſt root of all others, but ſlender withall and whitiſh. In the third place is to be raunged the Floure-de-lis of Africke or Barbarie; which, as it is the biggeſt in hand, ſo is it the bittereſt alſo in taſt. As touching the Illyrian Ireos, there be two ſorts of it; namely, Rhaphanitis, which is the better of the twain, ſo called for the reſemblance that it hath to the Radiſh root: the ſecond they name Rhizotomos, and it is ſomewhat reddiſh. In ſumme, the beſt Ireos, if a man doe but touch it, will provoke ſneeſing. The ſtem of the Floure-de-lis groweth ſtreight and upright, to the heigth of a cubit. The floure is of divers colours, like as we ſee in the rainbow, whereupon it tooke the name Iris. The Ireos of Piſidia is not rejected, but held to be very good. Moreover, they uſe in Sclavo-
F nia to be very ceremonious in digging up the root of Flour-de-lis: for three months before they purpoſe to take it foorth of the ground, the manner is to poure mead or honeyed water round about the root in the place where it groweth, having beforehand drawne a threefold circle with a ſwords point; as it were to currie favour with the Earth, and make ſome ſatisfaction for breaking it up and robbing her of ſo noble a plant: and no ſooner is it forth of the ground, but preſently they hold it up aloft toward heaven. This root is of a fervent and cauſticke nature, for in the very

* *Plinie* never heard of the Musk-goats nor Civet-cats in theſe daies.

* Commonly called *Ireos*.

handling it raiſeth pimples and bliſters in manner of a burne, upon their hands who gather it. G
Another ceremonie alſo they have in the gathering thereof, for none muſt come about this worke, but ſuch as have lived chaſt, and not touched a woman: this (I ſay) above all, is obſerved moſt preciſely. This root of all others is moſt ſubject to the worme, for not onely when it is drie, but alſo whiles it is within the earth, it quickly commeth to be worme-eaten. In old time, the beſt Irinum, or oile of Ireos, was brought from the cape of Leucas, and the cittie of Elis in Bœotia; for planted it hath been in thoſe parts many a yeare. But now there is excellent good commeth out of Pamphylia: howbeit that of Cilicia, and namely from the Septentrionall parts, is moſt highly commended.

As for the plant Saliunca, or Nard-Celticke, full of leaves verely it is, yet they bee ſo ſhort, that handſomly they cannot be knit & twiſted for guirlands: a number of roots it putteth forth, H
unto which the floure or hearbe groweth cloſe: for ſurely a man would judge it all hearbe rather than floure, as if it were platted and preſſed flat to the root with ones hand: and in a word, reſembling a very thick tuft of graſſe by it ſelfe. This hearbe groweth in Auſtria and Hungarie; alſo among the Morici, and the Alps on the Sun ſide. As for that which commeth up about the cittie Eporrhedia, it is ſo pleaſant and odoriferous, that there is as much ſeeking after it as if it were ſome precious mettall; and it yeeldeth a revenew to the cittie, no leſſe than ſome mettall mine. And in very truth, a ſingular hearbe it is in a wardrobe to lye among good cloaths, for to get them a moſt pleaſant and commendable ſmell.

Another plant there is which the Greeks uſe likewiſe in their wardrobes, called Polium. This hearbe *Muſæus* and *Heſiodus* the Poets, extoll and ſet out to the higheſt degree; for they report I
that it is good for all things that it ſhall be emploied about; but principally, that it availeth much to win men fame, renowme, promotions, and dignities. Over and above which vertues, miraculous it is (if it be true which they ſay) * that the leaves thereof in the morning ſeeme white, about noone purple, and at the Sun-ſetting blew. Two kinds there be of it: one groweth in the plains and champion grounds, and is the greater: another in the woods, and is the leſſe. Some call it Teuthrion. The leaves reſemble the gray hairs of an old man, ſpringing directly from the root, and never paſſe in heigth a hand bredth. Thus much may ſuffice concerning odoriferous flours.

* *Dioſc.* reporteth this of *Tripolium*, and not of *Polium*: wherby it ſeemeth that *Plinie* is in a fault.

Chap. viii.

The colours of cloth reſembling thoſe of floures, and ſtriving with them for the better. Of Amarantus or Paſſe-velours: of Chryſocon or Chryſitis. K

THe exceſſive ryot and prodigall ſuperfluitie of men is growne to this paſſe, that having taken no ſmall pleaſure in ſurmounting the naturall ſavour of ſimple floures, by their artificiall odours and compound perfumes; they cannot reſt ſo, but muſt proceed alſo in the craft and myſterie of dying cloth, to challenge the faireſt floures in the garden, and to match, if not to ſurpaſſe, the lively colours of Natures ſetting. Of theſe tinctures, I find that there be three principall: The one in graine, which ſtriveth with that bright orient colour in Roſes: and there is not a more pleaſant thing to the eye, than to ſee the Scarlet or purple of Tyros, or to behold the double died Dibapha, or the Laconian purple. The ſecond rich die, ſtandeth upon the Ame- L
thyſt colour, and reſembleth the March violet: this alſo beareth much upon that purple, which of the ſaid violet is called Ianthinus: for now I handle dies and colours in generall tearms, which nevertheleſſe may be ſubdivided into many other ſpeciall ſorts. The third, is ordinarily made of the purple and porcellane ſhell-fiſhes, and that in divers and ſundrie maners; for of this tincture there are cloaths which encline much to the colour of Tornſoll; and of theſe, ſome bee many times of a deeper and fuller die than others. Alſo there is another ſort that ſtandeth much upon the Mallow floure, enclining to a purple: and a third ſort which reſemble the violet that commeth late in the yeere [called the purple Stocke-gillofre] and indeed this is the freſheſt and richeſt colour that can be died out of thoſe fiſhes aforeſaid. Certes, the tinctures and dies now adaies are ſo lively, as well for ſimple colours as mixt and compound (ſuch artificiall means are deviſed by M
our ſumptuous gallants) that in this ſtrife of Nature and Art togither, a man ſhall hardly judge whether of them have the better hand. As touching Yellow, I find that it is a moſt auncient colour, and highly reputed of in old time: for the wedding vaile which the bride ware on her marrying day, was all of Yellow, and women onely were permitted to uſe them: which might well be

the

A the cauſe that this colour is not reckned among thoſe that be principall, that is to ſay, common as well to men as women: for the wearing and uſing of colours indifferently by the one and the other, is that which hath given them their name and ſpeciall credit. Howbeit, doe what we can, for all our skill and induſtrie wee muſt give place without all doubt to the purple floure-gentle, for we cannot reach poſſibly to the colour thereof. Now to ſay a truth, a purple Spike rather this is than a floure, and the ſame altogither without any ſmell. Of a ſtraunge and wonderfull nature this is: it loves of all things to be cropped, and the more it is plucked, the better it commeth againe: it beginneth to ſpike or put out the floure in the month of Auguſt, and continueth untill Autumne. The beſt is that of Alexandria, for after it is gathered, it will keepe the freſh and lively colour ſtill. This marveilous propertie it hath by it ſelfe, That when all other floures doe faile
B and are gone, if it be wet in water it looketh freſh againe; and for want of others, ſerves all winter long to make chaplets & guirlands. The chiefe and principall vertue that it hath, is ſhewed in the very name Amaranthus, for ſo it is called in Greeke, becauſe it never doth fade or wither.

But to come againe to our artificiall colours, we have one that anſwereth to the floure named Cyanos, *i.* Blewbottle: likewiſe to the yellow golden floure Elichryſon. Verely none of all theſe flours or colours were in requeſt in the daies of K. *Alexander* the Great; for the Greeke authors who wrote next after his deceaſe, have made no mention at all of them: whereby it is plain, that they grew into a name and liking ſince their time. Howbeit no man needs to make doubt or queſtion, That found out they were firſt by the Greekes: for how els ſhould it bee, that their names which be meere Greekiſh, are currant here in Italie? Howbeit this cannot be denied, that Italie
C hath given name to the hearbe Petilium, which floureth in Autumne, groweth about briers and brambles, and is onely commendable for the colour ſake, which is much like to the wild Roſe or Eglantine: the leaves of which floure be ſmall, and no more than five. A wonderfull thing to be noted in this floure, That the head ſhould bend and nod downward ſo, as unleſſe it bee thus (as it were) wreathed and bowed, the ſaid leaves will not ſhew out of a ſmall cup or veſſell of ſundrie colours, and encloſing within it a yellow ſeed.

As touching a Daiſie, a yellow cup it hath alſo, and the ſame is crowned as it were with a garland conſiſting of five and fiftie little leaves, ſet round about in manner of fine pales. Theſe be floures of the medow, and moſt of ſuch are of no uſe at all; no marvrile therfore if they be nameleſſe: howbeit ſome give them one tearme, and ſome another. As for Chryſocon or Chryſitis,
D no Latine denomination it hath at all: an hearbe it is, growing an hand-breadth high, putting forth certaine buttons (as it were) in the head, glittering as bright as gold, with a blacke root, taſting harſh and yet ſweetiſh withall: it groweth commonly in places full of ſtones and ſhadowie.

Chap. IX.

The excellencie of Chaplets and Guirlands: of Cyclaminus, and Melilot: of Trifolie or Claver, and three kinds thereof.

NOw that we have gone through in manner the principall dies and richeſt colours that be,
E it remaineth that we paſſe to the treatiſe of thoſe guirlands, which beeing made of divers coloured flours, in regard only of that varietie, are delectable and pleaſing to the eye. And conſidering that ſome of them ſtand upon flours, others of leafe, they may be all reduced to two principall heads. Among flours, I take to be all kinds of broome (for from them there be gathered yellow floures) and the Oleander. *Item*, the bloſſoms of the Injube tree, which alſo is called Cappadocia, for they reſemble much the odor of the Olive bloums. As for Cyclaminum, *i.* Sowbreed, it groweth among buſhes; whereof more ſhall be ſaid in another place: a purple Coloſſian floure it carieth, which is uſed to beautifie & ſet out game-coronets. To come now to chaplets made of leaves; the faireſt that goe unto them, be *Smilax and Ivie; and therein alſo their *Bindweed.
berries interlaced among, do make a goodly ſhew above all: of which we have ſpoken at large in the treatiſe of ſhrubs and trees. Many kinds there are beſides of plants proper for this purpoſe,
F which we muſt be faine to expreſſe by Greeke names, foraſmuch as our countreymen have not been ſtudious in this behalfe, to give any Latine names to the greateſt part of them: beſides, moſt of them are meere ſtraungers in Italy, and grow in forrein parts: howbeit, looked for it will be at our hands that we ſhould enter into the diſcourſe of them alſo, for that our purpoſe and deſign reacheth to all the works of Nature, and is not limited & confined within the bounds of Italy.

* *Vitis alba*, of some: *Glycypicron Dodonæi*, of others.
* *Viburnum Matthioli.*

Well then, to begin withall, * Melothron, Spireon, Trigonon, * Cneoron (which *Hyginus* calleth Casia) affourd leaves very meet to make chaplets: so doth Conyza, called otherwise Cunilago; Melyssophyllon, named also Apiastrum, *i.* Bawme; and Melilot, which we commonly terme Sertula Campana; and good reason, for the best in Italy is that of Campaine: and in Greece, that which groweth in the promontorie Sunium. Next to these, the Melilot of Chalcis & Candie is well accepted of: but grow it in what countrey it will, rough thickets and woods it delighteth most in. And that of this hearbe they were woont usually in old time to make garlands, may appeare by the very name Sertula, which it tooke thereupon, and retaineth still. In savor & floure both, it commeth neare to Saffron: the hearbe otherwise of it selfe is hoarie and gray. The best Melilot is that counted which hath shortest leaves, and those most plumpe and fattie withall. Semblably, the hearb Trifolie or Claver, hath leaves which goe to the making of coronets and guirlands. And hereof there be three kinds: the first is that which the Greeks call Mynianthes, others Asphaltion, having a bigger leafe than the rest; an hearb that garland-makers commonly use: the second with a sharpe leafe, called thereupon Oxytriphyllon: the third, which is least of all other. Among these Trefoiles, I cannot but advertise the reader, that some there be which have strong and firme stems, as nervous as those of garden Fennell and Fennell wild, yea and as stiffe as those of Myophonos. But to returne againe to our chaplets, there bee emploied about them, both the maine stalks of Ferula, as also the berries and purple floures of the Ivie. There is besides a kind of them, like unto the wild roses: and in them verely the colour only is delectable, for odour they have just none. To conclude, of Cneoron there be two kinds, the blacke and the white: both well branched and full of leaves, but the white is most odoriferous: and as well the one as the other, doe flourish after the Æquinox in Autumne.

Chap. X.

Of Oryganum, and Thyme: of the Athenien honey: of Conyza, and Iupiters floure: of Sotherwood and Camomile.

As many sorts also there be of Origanum, serving to make guirlands: as for one of them, it hath no seed; but the other which is sweet, is called Origan of Candie. In like manner, two kinds there be of Thyme, to wit, the white and the blacke: this hearbe doth flourish about the Summer Solstice, at what time as Bees also begin to gather honey from it; and according to the flouring of it more or lesse, a man may guesse full well what season there will be for honey: for honey-mistresses and such as keepe Bees, hope to have a good yeere of honey, when they see the Thyme to bloume abundantly. Thyme cannot well away with raine, and therefore it taketh harme by showres and sheddeth the floure. Thyme seed lyeth so close, that unneth or hardly it can be found; whereas the seed of Origan, notwithstanding it bee exceeding small, is evident enough and may soone be seene. But what matter makes it, that Nature hath so hidden the seed, considering it is well knowne, that it lyeth in the very floure, which if it be sowne, commeth up as well as any other seed? See the industrie of men, and how there is nothing but they have made triall of and put in practise! The honey of Athens carrieth the name for the best honey in the world, by reason of the Thyme growing thereabout. Men therfore have brought over into other countries, Thyme out of Attica, although hardly and with much adoe (being sowne thus in the floure as I have said) it commeth up. But there is another reason in Nature, why it should thrive so badly in Italy or elsewhere, considering that the Attick Thyme will not continue and live, but within the aire and breath of the Sea. Certes this was an opinion received generally of our auncient fore-fathers, That no Thyme would doe well and prosper, but neare unto the Sea; which should be the cause, that in Arcadia there is none of it to be found. And in those daies also, men were verely persuaded, that the Olive would not grow but within the compasse of three hundred stadia from the Sea side. Howbeit, in this our age verely, we are advertised and know for certain, That in Languedoc and the province of Narbon, the very stonie places are all overgrowne and covered with Thyme, upon which there are fed thousands of sheepe and other cattaile: in such sort, as this kind of herbage and pasturage, yeeldeth a great revenue to the inhabitants and paisants of that countrey, by joisting and laying in of the said beasts, brought thither out of far remote parts for to feed upon Thyme.

Concerning the hearbe Conyza, which goeth also to the making of Chaplets, there bee two kinds

A kinds likewiſe of it, namely, the male & the female. And theſe differ onely in the leaves. For thoſe of the female Conyza be thinner, ſmaller, narrower, and growing cloſer together than the other of the male, which indeed braunch and ſpread abroad more, lapping one over another in manner of creſt tiles. The flowers alſo of the male Conyza is more bright and lively: howbeit, both the one and the other flower late, and not before the riſing or apparition of the ſtarre Arcturus. The male carieth a ſtrong ſent: but that of the female is more penetrant; in which regard the female is better for the bite and ſting of venomous beaſts. The leaves of the female, ſmell of Honey. The root of the male, is by ſome called Libanotis, whereof we have alreadie written.

As touching theſe hearbes following, *Dios Anthos, Majoran, the day Lillie, Hemerocalles, Sothernwood, Elecampane, water Mints, and wild running Thyme, as alſo all which doe branch
B and put forth ſhoots as Roſes doe, ſuch ſerve onely in leafe for Guirlands. As for the ſaid *Iupiters* flower or Dios Anthos, particularly, there is nothing in it but the colour to commend it; for ſavour it hath none, no more than another hearbe which the Greekes call Phlox. As for the reſt, their flowers and braunches both be odoriferous, except the running wild Thyme.

Elecampane, named in Greeke Helenium, ſprang firſt (as men ſay) from the teares of ladie *Helena*: and therefore the beſt Elecampane is that which groweth in the Iſland of Helena. The plant is leafed like unto wild Thyme, ſpreading and running low by the ground with little braunches, nine inches or a ſpan long.

Sothernwood doth flouriſh in Summer, and carieth a ſweet and pleaſant ſavour, howbeit, the head it ſomewhat ſtuffeth and offendeth. The flower is of a golden colour. And ſay, that it carieth
C neither ſeed nor flower, yet commeth it up of it ſelfe in void and vacant places altogether neglected and without any culture, for it doth propagat and encreaſe by the tops and tips of the branches lying upon the ground, and ſo taking root. And therefore it groweth the better if it be ſet of root or ſlip, than ſowed of ſeed. For of ſeed, much adoe there is to make it come up. And when it is above ground, the young plants are removed and ſet, as it were in *Adonis* gardens, within pots of earth; and that in Summer time, after the manner of the hearbe and flower Adonium. For as well the one as the other be very tender, and can abide no cold: and yet as chill as they bee, they may not away with over-much heat of the Sunne, for taking harme. But when they have gotten head once and be ſtrong ynough, they grow and branch as *Rue doth.

Much like unto Sothernwood in ſent and ſmell, is Camomile: the flower is white, conſiſting
D of a number of pretie fine leaves ſet round about the yellow within.

* or *Iovis Flos*, which ſome take to be the Columbines.

*Helenium here deſcribed agreeth not with our Elecampane.

*Rutæ vide.

Chap. xi.

Of Marjoram, the greater and the leſſe, called in Latine Amaracus or Sampſuchum. Of Nyctygretum, Melilote, the white Violet: of Codiaminum, and wild Bulbes: of Heliochryſum, and Lychnis or Roſe Campian. And of many other hearbs growing on this ſide the ſea.

E *Diocles* the Phyſician, and the whole nation in manner of the Sicilians, have called that hearbe Amaracus, which in Ægypt and Syria is commonly named Sampſuchum. It commeth up both waies, as well of ſeed as of a ſlip and braunch. It liveth and continueth longer than the hearbes beforenamed, and hath a more pleaſant and odoriferous ſent. Marjoram is as plentifull in ſeed, as Sothernwood: but whereas Sothernwood hath but one tap-root and the ſame running deep into the ground, the reſt have their roots creeping lightly aloft and eb within the earth. As for all the other hearbes, they are for the moſt part ſet and ſowne in the beginning of the Autumne: ſome of them alſo in the Spring, & namely in places which ſtand much in the ſhade, which love to be well watered alſo and enriched with dung.

As touching Nyctygretum [or Lunaria] *Democritus* held it to be a wonderfull hearb, and few like unto it; ſaying that it reſembleth the colour of fire, that the leaves be prickie like a thorn, that it creepeth along the ground: he reporteth moreover, That the beſt kind thereof groweth in the
F land Gedroſia, That if it bee plucked out of the ground root and all after the Spring Æquinox, and be laid to drie in the Moonſhine for three daies together, it will give light and ſhine all night long; alſo, That the Magi or Sages of Perſia, as alſo the Parthian kings uſe this hearbe ordinarily in their ſolemne vowes that they make to the gods: laſt of all, That ſome call it Chenomychos, becauſe Geeſe are afraid of it when they ſee it firſt; others name it Nyctilops, becauſe in the night

night ſeaſon it ſhineth and glittereth a farre off. As for Melilote, it commeth up every where : howbeit, the beſt ſimply, and wherof is made the greateſt account, is in Attica. But in what place ſoever it groweth, that is moſt accepted which is freſh and new gathered, not enclining to white, but as like unto Saffron as is poſſible. And yet in Italie the white Melilote is the ſweeter and more odoriferous. G

The firſt flower bringing tidings of the Springs approch, is the white bulbous ſtock-Gilloſre. And in ſome warmer climats they put forth & ſhew even in Winter. Next unto it for their timely appearance, is the purple March Violet: and then after them the Panſe, called in Latine Flammea, and in Greeke Phlox, I meane the wild kind onely.

Codiaminon bloweth twice in the yeare, namely, in the Spring and the Autumne: for it cannot abide either Winter or Summer. Somewhat later than thoſe before rehearſed, are the Daffodill and Lillie ere they flower, eſpecially in countries beyond ſea. [In Italie verely (as I have ſaid before) they bloum not untill after Roſes:] for in Greece the Paſſe-flower *Anemone is yet more lateward. Now is this Anemone the flower of certaine wild Bulbes, different from that other Anemone, whereof I will ſpeake in the Treatiſe of Phyſicke-hearbes. Then followeth *Oenanthe, and Melanion, and of the wild ſort Heliochryſos. After them, a ſecond kind of Paſſe-flower or Anemone, called alſo Leimonia, beginneth to blow. And immediately upon it the petie Gladen or ſword-graſſe, accompanied with the Hyacinth. And laſt of all, the Roſe ſheweth in her likenes. But quickly hath the Roſe done, and none ſo ſoone, and yet I muſt except the garden Roſe. Of all the reſt, the Hyacinths or Harebels, the *ſtocke Gillo flower, and Oenanthe or Filipendula, beare flowers longeſt. But of this Oenanthe, this regard muſt be had, that the flowers bee often picked and plucked off, and not ſuffered to run to ſeed. This groweth in warme places. It hath the very ſame ſent that Grapes when they firſt bud and put out bloſſome, whereupon it tooke the name Oenanthe. But before I leave the Hyacinth, I cannot chuſe but report the fable or tale that goeth thereof, and which is told two manner of waies, by reaſon that the flower hath certain veines to be ſeene running in and out, reſembling theſe two letters in Greeke A I, plaine and eaſie to be read: which as ſome ſay, betoken the lamentable mone [αι] that *Apollo* made for his beloved wanton minion *Hyacinthus*, whom he loved: or as others make report, ſprung up of the bloud of *Ajax* who ſlew himſelfe, and repreſented the two firſt letters of his name AI. H I

*Pulſatylla or Wind-flower.

*Filipendula ſuppoſed of ſome.

*or rather the Wall-flower.

Heliochryſos beareth a yellow flower like to gold, a ſmall and fine leafe, a little ſtalke alſo and a ſlender, but hard and ſtiffe withall. The Magi or Sages of Perſia uſe to weare this hearb and flour in their Guirlands: and they be fully perſuaded, that by this meanes they ſhall win grace and favour in this life, yea, and attain to much honor in glorie; provided alwaies, that their ſweet compoſitions wherewith they annoint and perfume themſelves, be kept in a veſſell or box of gold not yet fined nor purified in the fire; which gold they call Apyron. And thus much for the flowers of the Spring. K

Now ſucceed and come after in their ranke, the Summer flowers, to wit, Lychnis, *Iupiters* flower or Columbine, and a ſecond kind of *Lillie: likewiſe Iphyon, and that Amaracus or Marjeram, which they call the Phrygian. But of all others, the flower Pathos is moſt lovely and beautifull: whereof there be two kinds, the one with a purple flower like unto the Hyacinth; the other is whiter, and groweth commonly in churchyards among graves and tombes, and the ſame holdeth on flouring better, and liveth longer. The flower de Luce alſo is a Summer flower. Theſe have their time, fade, and are ſoone gone. And then come other flowers for them in their place in Autumne, to wit, a third kind of Lillie, and Saffron: But of both theſe, the one is of a dull or no ſent at all: the other is very odoriferous. But all of them breake out and ſhew abroad with the firſt ſhower of raine in Autumne. Our Chaplet-makers uſe the flowers alſo of Bedegnar or white Thiſtle in their Guirlands: and no marvell, ſince that our Cookes dreſſe the young tendrels and crops thereof, for to make a daintie diſh for to content our raſt and goe pleaſantly downe the throat. Thus you ſee the order and manner of beyond-ſea flowers, how and when they come abroad. In Italie it is ſomewhat otherwiſe: for the Roſe followeth immediately after the Violets: and when the Roſe is in the mids of his ruffe, in comes the Lillie to beare him companie. No ſooner hath the Roſe plaied his part, but the blew-Blaw entereth the ſtage: and after him the Paſſeveleur or Flower-gentle. As for the Pervincle, it continueth freſh and greene all the yeare long: this hearbe windeth and runneth too and fro with her fine and ſlender twigges in manner of threds or laces, and thoſe beſet with leaves two by two in order, at every knot or joint. L M

*Some read Cerinthus rather.

Paſſing

A Paſſing good and proper indeed for vinet and ſtorie worke in borders, arbours or knots,& meet for fine and curious Gardeners: howbeit, for default of other flowers,the Garland-makers borrow a little of the law,and make up their defects with a ſupplie from it. The Greekes call it Chamædaphne.

The life of the white Violet or bulbous ſtocke-Gillofre,is three yeares at moſt, and ſo long it holdeth the owne well; after that tearme it doth degenerat and wax worſer. The Roſe-buſh will continue five yeares, without cutting downe or burning (which are the meanes to maintaine it in youth ſtill.) But as we have alreadie obſerved,there lieth very much in the ſoile,which would be conſidered eſpecially in flowers: for in Ægypt, none of all theſe above rehearſed,have any odour or ſent at all; and yet the Myrtle trees there, they alone carie a moſt ſweet and pleaſant ſa-
B vour. Moreover,in ſome tracts all theſe hearbes and flowers beforenamed, doe prevent in budding and blowing (two months) thoſe of other places. As for Roſe-rewes,the earth ought to bee digged & opened about the roots; firſt preſently upon the comming of the Weſterne wind Favonius in Februarie, and then a ſecond time about the Summer Solſtice: to conclude, theſe would be looked unto above all things,that before and betweene thoſe times, they bee kept well pruned and cleanſed from all ſuperfluities.

Chap. xii.

The order of nouriſhing and maintaining Bees. What meat is to be given them.
C *Their diſeaſes,and the remedies to them belonging.*

IN this diſcourſe of ours concerning Gardens and gay flowers appertaining to Guirlands, requiſit it is to ſpeake of Bees and Bee-hives, which become the garden very well: conſidering the gaine that commeth in ſo eaſily by them,eſpecially when they ſtand and do well.In regard therefore of theſe Bees,ſo beneficiall as they bee,and kept with ſo ſmall charges,a garden ought to be well planted and ſtored with Thyme,Baulme,Roſes,Violets of all kinds,Lillies,ſweet Trefoile,Beanes,Ervile,Cunila or Saverie,Poppies,Conyza, Caſia, to wit,Lavander and Roſemarie,Melilote, Meliſſophyllum, and Cerinthe. This Cerinthe is an hearbe bearing white leaves, and thoſe bending downeward: it groweth a cubit high,and carrieth an hollow head,containing
D within it a certaine ſweet liquour reſembling honey: Bees are moſt eager and greedie after the flower of this hearbe,as alſo of Senvie; whereat we may well make a wonder, ſeeing that for certaine they will not touch nor come neare to the bloſſome of the Olive trees.And therefore good it is to ſet Bee-hives farre ynough from this tree. And yet of neceſſitie ſome there would be planted neare unto them,that when the Bees do ſwarme or caſt, they might have a convenient place at hand to ſettle upon,for feare they ſhould flie too farre from the hive. The Cornell tree alſo is not good for Bees, for if they chaunce to taſt the flower thereof, they fall preſently into a vehement laske,whereof the poore wretches (if they have not helpe the ſooner) die: and therefore it would not ſtand in their way. Howbeit, there is a remedie to cure them of this Flux, namely, to take ſorviſes and ſtampe them together with honey, and ſo to give it them: to ſet unto them ei-
E ther mans urine or beaſts ſtale: or elſe laſt of all to ſerve them with graines of the Pomgranate, beſprinckled and drenched in wine of the Amminean grape. But if you ſet Browme all about their hives, you doe them an high pleaſure.

As touching their food and nouriſhment, I will tell you a wonderfull and memorable thing upon mine owne knowledge.There is a towne or Burgade called Hoſtilia, ſituate upon the river Po, the inhabitants of this village, when they ſee that their Bees meat goeth low therabout,and is like to faile,take me their hives with Bees and all,and ſet them in certaine boats or barges,and in the night row up the ſaid river Po againſt the ſtreame five myles forward. The morrow morning out goe the Bees to ſeeke food and releefe. Now when they have met with meat, and fed themſelves, they returne againe to the veſſels aforeſaid: and thus they continue daily,although
F they chaunge their place and haunt; untill ſuch time as their maiſters perceive that the hives be full,by the ſettling of their boats low within the water with their weight,and then they return home againe downe the ſtreame,and diſcharge the hives of the honey within.

Chap.

G

Chap. xiii.

Of a certaine venomous and poysonfull Honey. The remedies as well against the said Honey, as another kind that maketh folke besides themselves.

SEmblably in Spaine they deale with their Bees and hives upon Mules backs in the like case, and carie them up into the countrey for to bee provided of victuals. But here it would bee considered by the way, what pasturage it is that they be put into; for that there is some kind of food, which poysoneth all the honey that is gathered from it. At Heraclea in Pontus, in some yeares, all the honey that the Bees do make, is found to be venomous and no better than poyson; and yet the same Bees in other yeares gather good and holesome honie. Howbeit, those authors H
who have delivered thus much in writing, have not set downe what flowers they bee that yeeld this hurtfull honey: and therefore I thinke it not amisse to write what I have found and known as touching this point. There is an hearbe called Ægolethron in Greeke, which killeth horses verely, but Goats most of all, feeding thereupon; and therfore it tooke that name: the flowers of this hearbe, if it chaunce to be a wet and rainie Spring, do conceive and engender within them a certaine deadly venome which doth corrupt and rot them. This may be a propable reason, that the foresaid mischeefe and bane is not alwaies felt alike. This poysonsome honey may be knowne by these signs: First it will never thicken but continue liquid still; secondly, the colour is more deep and reddish than ordinarie; thirdly, it carrieth a straunge sent or smell with it, and will cause one to sneese presently; last of all, it is more ponderous and heavie than the good and harmelesse I
hony. The symptomes or accidents that ensue upon the eating of this honey, are these, They that have tasted thereof, cast themselves upon the ground and there fall a tumbling: they seeke by all meanes they can to be cooled: and no marvell, for they run all to sweat, that one drop overtakes the other. Howbeit, there bee many remedies for this poyson, which I will shew in place convenient. Meane while, because a man would not be without some good thing readie at hand, since the world is so full of villanie and set upon such secret mischeefe, I must needs put down one good receit, and that is this: Take honied wine that is old, mingle and incorporat it with the best honey you can meet withall, and Rue together: use this confection at your need. *Item*, Eat much of salt-fish, although it come up againe, and that your stomacke doe cast it. Moreover, this honey is so pernicious, that the very dogges if they chaunce to licke up any excrements that passe from the K
partie so infected (either by reaching, spitting, vomit, or seege) they are sure to be sped therewith, and to feele the like torments. Howbeit, the honied wine that is made therewith, if it may have age ynough and be stale, is knowne for a certainetie to doe no creature harme. And there is not a better medicine in the world, either to fetch out spots in womens faces, and make their skinne faire and cleare (if it be applied with Costus;) or to take out the blacke and blew marks remaining after stripes in eye or elsewhere, so it be tempered with Aloe. Another kind of honey there is in the same region of Pontus, and namely among the Sanni (a people there inhabiting) which because it driveth folke into a fit of rage and madnesse, they call in Greeke Mænomenon. Some attribute the occasion hereof to the flower of the Oleander, whereof the woods and forrests there be full. This nation selleth no hony at all, because it is so venomous and deadly: notwithstanding L
they doe pay for tribute a huge masse of wax unto the Romanes every yeare. Moreover, in the kingdome of Persis, and in Getulia, which lieth within Mauritania Cæsarienſis, a countrey confining and bordering upon the Massæsuli, there be venomous honey-combs; yea, you shall have in one hive some honey-combes full of poysoned honey, whereas others be sound and good: a daungerous thing no doubt, and than which, there could bee no greater deceit to poyson a number of people; but that they may be knowne from the rest by their leaden and wan hew that they have. What should we think was Natures meaning and intent by these secret slights and hidden mischeefes, That either the same Bees should not every year gather venomous honey; or not lay the same up in all their combes differently? Was it not ynough that she had bestowed upon us a
thing, wherein poyson might be soonest given and least perceived? Was shee not content thus M
to endaunger our lives, but shee must proceed farther, even to incorporat poyson her selfe in honey, as it commeth from the Bee, for to empoyson so many living creatures? Certes, I am of this mind and beleefe verely, That she had no other purpose herein, than to make men more warie what they eat, and lesse greedie of sweet meats to content and please the tooth. For the very

honey

A honey indeed ſhe had not generally infected with this hurtfull qualitie, like as ſhe had armed all Bees with ſharpe prickes and ſtings, yea, and the ſame of a venomous nature: & therfore againſt theſe creatures verely ſhe hath not deferred and put off to furniſh us with a preſent remedie. For the juice of Mallowes or of Yvie leaves ſerveth to annoint the ſtinged place, and keepe it from rankling: yea and it is an excellent thing for them that be ſtung, to take the very Bees in drinke; for it is an approoved cure. But this I marvell much at, That the Bees themſelves, which feed of theſe venomous hearbs, that carie the poyſon in their mouths, and are the makers of this miſcheevous honey, doe eſcape & die not thereof? Whereof I can give no reaſon at all, unleſſe dame Nature, that ladie and miſtreſſe of the world, hath given unto theſe poore Bees a certaine Antipathie and vertue contrarie unto poyſon: like as among us men to the *Marſi* and *Pſylli*, ſhe hath
B imprinted (as it were) a repugnancie in their bodies, to reſiſt the venome of all Serpents whatſoever.

Chap. xiiii.

Of a certaine kind of honey which Flies will not touch. Of Bee-hives. How to order the ſame, and namely when Bees want meat and are in daunger to be famiſhed. The manner alſo of making Wax.

THere is in Candie another ſtraunge and woonderfull thing, as touching Honey, gathered about the mountaine Carina, which taketh nine miles in compaſſe: within which ſpace and circuit of ground, there is not a Flie to be had; and the honey there made, Flies wil not
C touch in any place whereſoever. By which experiment, this honey is thought to bee ſingular for medicines, and therefore choiſe is made thereof before any other.

As touching Bee-hives, they ought to ſtand on the open ſide upon the Æquinoctiall Sunne riſing, that is to ſay, when the daies and nights be equall. And in any wiſe, regard would bee had, that they open not into the Northeaſt, and much leſſe the full Weſt. The beſt Bee-hives be made of barkes and rinds of trees: the ſecond in goodneſſe be thoſe of Ferula or Fennell-geant. In the third place are ſuch as be wrought of oiſier twigs. Many have made them of Talc, which is a kind of tranſparent glaſſe ſtone, becauſe they would ſee through them how the Bees doe worke and labour within. Daubed they ſhould be if they were well ſerved, both without and within with Oxe dung. The cover and lid thereof ought to be mooveable and have libertie to play up and downe
D behind, that it may bee let downe farre within-forth, in caſe either the hive bee too large and of greater receit in proportion than the Bees are in number; for feare they ſhould ſlacke their work and give over their travell, deſpairing ever to fill the ſame, ſeeing it ſo big and of ſo great capacitie: and being thus let downe (to make the hive ſeeme the leſſe) it muſt be gently drawn up again by little and little, that the Bees may be deceived thereby, and not perceive how their work grows upon them. In Winter time Bee-hives ſhould be covered with ſtraw: and oftentimes perfumed with beaſts dung eſpecially; * for this is agreeable to their nature. Over and beſides, it killeth the wicked vermine that breed in them, Spiders, Butterflies, and Wood-wormes: yea, and this propertie it hath moreover, to ſtirre up and quicken the Bees, and make them more lively and nimble about their buſineſſe. As for the Spiders aforeſaid, they verely are not ſo harmefull, and bee
E ſoone deſtroied: but the Butterflies doe the more miſcheefe, and are not ſo eaſily rid away. Howbeit, there is a way to chaſe them alſo, namely, to wait the time when the Mallow dooth begin to bloſſome, to take the chaunge of the Moone, and chuſe a faire and cleare night, and then to ſet up certaine burning lights juſt before the Bee-hives: for theſe Butterflies will covet to flie into the flame. But what is to be done, when you perceive that the Bees doe want victuals? Then it will be good to take drie Raiſins of the Sunne, and Figges, to ſtamp them together into a maſſe, and lay it at the entrie of the hive. *Item*, It were not amiſſe to have certaine lockes of wooll well touzed & carded, and thoſe wet & drenched in cuit either ſodden to the thirds, or to two thirds, or els ſoked in honied wine, for them to ſettle upon and ſucke. Alſo to ſet before them in their way the raw carkaſes of Hens, naked and pulled to the bare fleſh. Moreover, there be certaine Summers
F ſo drie and continually without raine, that the fields want flowers to yeeld them food, and then muſt they bee ſerved with the foreſaid viands, as well as in Winter ſeaſon. When honey is to be taken forth of the hives, the holes and paſſages for the ingreſſe and egreſſe of the Bees ought to be well rubbed and beſmeared with the hearbe Meliſſophyllon and Geniſta bruſed and ſtamped: or elſe the hives muſt be compaſſed about in the middeſt with branches of the white Vine,

* Conſidering that of a beaſts carkaſſe they will be engendred.

for

for feare leaſt the Bees depart and flie away. The veſſels whereout honey hath beene emploied, G
yea, and honey combes, would bee well rinced and waſhed in water: which being throughly ſod-
den, maketh a moſt wholeſome and excellent vinegre.

As touching Wax, it is made of the combes after the honey is preſſed and wrung out of them. But firſt they muſt bee purified and cleanſed with water, and for three daies dried in ſome darke place: upon the fourth day they are to be diſſolved and melted upon the fire in a new earthen pot never occupied before, with ſo much water as will cover the combes: and then it ſhould be ſtrained through a panier of reeds or ruſhes: which done, the wax is to be ſet over the fire a ſecond time in the ſame pot, and with the ſelfeſame water, and ſodden againe; and then it ought to run out of it into other veſſels of cold water, but thoſe firſt ſhould be all about within annointed and beſmeared with honey. The beſt wax is that which is called Puniça, *i.* of Barbarie, and is H
white. The next in goodneſſe is the yelloweſt, and ſmelleth of honey, pure and cleane without ſophiſtication; ſuch commeth from the countrey of Pontus: and verely I wonder much how this wax ſhould hold good, conſidering the venomous honey whereof it is made. In the third place is to be raunged the wax of Candie: for this ſtandeth much upon that matter which they call Propolis, whereof I have alreadie ſpoken in the Treatiſe of Bees and their nature. After all theſe, the wax of the Iſle Corſyca may be reckoned in the fourth ranke: which becauſe it is made much of the Box tree, is thought to have a vertue medicinable. Now the making and working of the firſt and beſt Punicke white wax, is after this manner: They take yellow wax, and turne it often in the wind without the houſe in the open aire; then they let it ſeeth in ſea-water, and namely, ſuch as hath been ſet farre from the ſhore out of the very deepe, putting thereto Nitre: this done, they ſcum off the flower (that is to ſay, the whiteſt of it) with ſpoones; and this creame (as it were) I
they change into another veſſell, which hath a little cold water in it. Then once againe they boile it in ſea-water by it ſelfe alone, and ſet the veſſell by for to coole. After they have done thus three times, they let it drie in the open aire upon an hurdle of ruſhes, in the Sunne and Moone, both night and day: and this ordering bringeth it to be faire and white. Now, in the drying, for feare that it ſhould melt, they cover it all over with a fine Linnen cloth. But if they would have it to be exceeding white indeed, they ſeeth it yet once more, after it hath been thus ſunned & mooned. In truth, this Punicke white wax, is ſimply the beſt to be uſed about medicines. If one be diſpoſed to make wax blacke, let him put thereto the aſhes of paper: like as with an addition of Orchanet it will be red. Moreover, wax may bee brought into all manner of colours, for painters, limners, and enamellers, and ſuch curious artificers, to repreſent the forme and ſimilitude of any thing K
they liſt. And for a thouſand other purpoſes men have uſe thereof, but principally to preſerve their walls and armours withall. All other things as touching Honey and Bees, have ben handled alreadie in the peculiar Treatiſe to them and their nature belonging. Here an end therefore of Gardens and Gardinage.

Chap. xv.

Of hearbs which come up of themſelves, and ſuch eſpecially as be armed with pricks.

IT remaineth now to ſpeake of certaine wild hearbs growing of their own accord, which in many nations ſerve for the kitchin, and principally in Ægypt: for this countrey, although it bee L
moſt plentifull in corne, yet may ſeeme to have leaſt need thereof, and of all nations under heaven beſt able to live without the ſame: ſo well ſtored it is with hearbs, wherof the people doth ordinarily feed: whereas in Italie here, wee know as few of that kind good to be eaten, namely, Strawberries, * Tanus, Ruſcus, Creſtemarine or Sampire; as alſo Batis Hortenſiana, which
*The fruit or berrie whereof is *Vva Taminia*
ſome call French Sperage: we have alſo the wild Parſnep of the medows, and the Hop, but wee uſe them rather for pleaſure and delight, and to give contentment to our taſt, than for any neceſſarie food to maintaine life. But to come againe to Ægypt, there is to be found the nobleſt plant of all others, Colocaſia, which ſome name Cyamos, [*i.* the Ægyptian beane:] this hearbe they gather and cut downe out of the river Nilus: it putteth forth a maine ſtem, which being ſodden, M
yeeldeth in the eating and chewing, a certaine threadie matter or woolly ſubſtance, drawing out in manner of a cobweb; but the ſtalke as it groweth up amid the leaves, maketh a faire and goodly ſhew: for indeed the ſaid leaves be exceeding large, and comparable to the broadeſt that any tree beareth; reſembling thoſe for all the world of the Clote or great Burrhe growing in our ri-

A vers, which we call Perſonata. A wonderfull thing it is to ſee, what ſtore they in Ægypt ſet by the commodities that their river Nilus doth affourd: for of the leaves of this Colocaſia (plaited and enfolded naturally one within another) they make them cups of divers formes and faſhions, out of which they take no ſmall pleaſure to drinke. And now adaies this hearb is planted here in Italie. Next to Colocaſia, the Ægyptians make moſt account of that Cichorie, which I named before, the wild and wandring Endive; which hearbe commeth up in that countrey after the riſing of the Brood-hen ſtar: it floureth not all at once, but bloweth by braunches one after another: a ſupple and pliable root it hath, and therefore the Ægyptians uſe it in ſtead of cords to bind withall. As for Anthalium, it groweth not in Nilus, but not far from the river: it beareth a fruit in bigneſſe and roundneſſe reſembling a Medlar, having neither kernell within, nor huske with-
B out: and the leafe of this plant is like to Cyperus, or Engliſh Galangale. This hearbe they uſe to eat, being firſt * dreſſed and prepared in the kitchin. They feed likewiſe upon Oetum, a plant that hath few leaves and thoſe very ſmall, howbeit a great root. Touching Aracidna and Aracos, they have many roots verely braunching and ſpreading from them, but neither leafe nor herbage, ne yet any thing els appearing above ground. And thus much of the chiefeſt and greateſt hearbs of Ægypt, ſerved up to the table: The reſt are common or vulgar, and every mans meat, by name, Condrylla, Hypochœris, Caucalis, Authriſcum, Scandix, (called by ſome Tragopogon, which beareth leaves like to Saffron;) Parthenium, Strychnum, Corchorus, and * Apace, which ſheweth his head about the Æquinox: alſo Acinos, and that which they name Epipetron, and it never beareth floure; whereas Aphace contrariwiſe never giveth over flouring,
C but when one floure is faded and ſhed, another commeth up, and this courſe it holdeth all winter long; throughout the Spring alſo, even to the heat of Summer. Many other hearbs they have of baſe reckoning: but above all, they make greateſt account of * Cnicus (an hearbe not knowne in Italy) not for any good meat they find in it, but for the oyle drawne out of the ſeed thereof. Of this hearbe, there be two principall kinds, to wit, the Wild, and the Tame: the Wild is ſubdivided into two ſpeciall ſorts, the one of a more mild and gentle nature than the other; although the ſtalks of both be alike, that is to ſay, ſtiffe and ſtreight upright: and therefore women in old time uſed the ſtems thereof for rocks and * diſtaffs; wherupon ſome do call the hearb
D Atractylis: the ſeed is white, big, and bitter. The ſecond is more rough and hairie, creeping long on the ground, with ſtalks more muſculous and fleſhie, and carrieth a ſmall ſeed. This hearb may be raunged among thoſe that be prickly: for ſo muſt herbs be devided into ſuch generall head; namely, that ſome be full of pricks, others cleane without and ſmooth. As for thoſe which ſtand upon pricks, they be ſubdivided into many members and braunches. And to begin with a kind of Sperage, called alſo Scorpio, it hath no leafe at all, but in ſtead thereof, pricks and nothing els. Some there be leafed indeed, but thoſe are beſet with pricks, as the Thyſtle, Sea-holly, * Liquitice, and Nettle: for the leaves of all theſe hearbs be prickie and ſtinging withall. Others, beſides their leaves, have prickles alſo, as the * bramble, and Reſt-harrow or Whin. Some be provided of pricks both in leafe and ſtalke, as Phleos, which others have called Stœbe. As for Hippophacet, it hath a pricke or thorne in every joynt: but the bramble Tribulus aforeſaid, hath this
E propertie by it ſelfe, That the fruit alſo which it beareth, is ſet with pricks. Of all theſe ſorts, the Nettle is beſt knowne, which carrieth certaine goblets and concavities, and the ſame yeelding a purple kind of downe in the floure, and it riſeth up ſometimes above two cubits high. Many kinds there bee of theſe Nettles; namely, the wild Nettle, which ſome would have to be the female, and this is more mild than the reſt. In this wild kind is to be reckoned alſo, that which they call Cania, and is of the twaine more ægre, for the verie ſtalke will ſting, and the leaves be purfled as it were and jagged. But that Nettle which carrieth a ſtinking ſavor with it, called is Herculanea. All the ſort of them are full of ſeed, and the ſame blacke. A ſtraunge qualitie in theſe Nettles, that the verie hairie down of them (having no evident pricks ſticking out) ſhould be ſo
F ſhrewd as it is, that if one touch it never ſo little, preſently there followeth a ſmarting kind of itch, and anon the skin riſeth up in pimples and bliſters, as if it had been skalt or burnt: but well knowne is the remedie of this ſmart, namely, to annoint the place with oile. Howbeit this biting propertie that it hath, commeth not to it at the beginning when it is new come up, but it is the heat of the Sun that fortifieth this mordacitie. And verely in the Spring when the Nettle is yong and peepeth firſt out of the ground, they uſe to eat the crops thereof for a pleaſant kind of meat, and many be perſuaded beſides that it is medicinable, and therefore preciſely & religiouſly ſeed

* as *Theophraſtus* ſaith, ſodden in ale: *hordeaceo zytho.*

* Thought to be *Dent de lion.*

* *Carthamus*, or baſtard ſaffron: but *Turnebus* ſuppoſeth it to be put for *Cieti*, whereof commeth *Oleum Cicinum.*

* *Celu*, although ſome read *fuſis*, *i.* ſpindles.

* *Glycyrrhizen*, but this agreeth not with our Liquitice.

* *Tribulus.*

* *Acetabulis.*

thereupon, as a preſervative to put by all diſeaſes for that preſent yeare. Alſo the root of the wild Nettle, if it be ſodden with any fleſh, maketh it to eat more tender. The dead Nettle, which ſtingeth not at all, is called Lamium. As touching the hearbe Scorpio, I will write in the treatiſe of hearbs medicinable. G

Chap. XVI.

Of Carduus, and Ixine: of Tribulus and Anchuſa.

THe common Thiſtle is full of prickie haires, both in leafe and ſtalke: likewiſe *Acorna, *Leucacanthos, Chalceos, Cnicos, Polyacanthos, Onopyxos, Ixine, and Scolymos. As touching the Thiſtle Chamæleon, it hath no pricks in the leafe. Moreover, theſe prickie hearbs are diſtinguiſhed & different one from another, in this, That ſome of them be furniſhed with many ſtems, and ſpred into divers braunches, as the Thiſtle: others againe riſe up with one maine ſtalke, and branch not, as Cnecos. Alſo there be of them that be prickly only in the head, as the Eryngium or Sea-holly. Some floure in Summer, as Tetralix and Ixine. As for Scolymus, late it is alſo ere it blow, but it continueth long in the floure. Acorna differeth from it onely in the red colour and fattier juice that commeth from it. Atractylis alſo might goe for Scolymus, but that it is whiter and yeeldeth a liquor like bloud: whereupon there be ſome who call it Phonos, *i.* Murderer: this qualitie it hath beſides, that it ſenteth ſtrong: the ſeed alſo ripeneth late, and not before Autumne: and yet this is a propertie common to all plants of this prickie and thiſtly kind. But all theſe hearbs will come of ſeed and root both. As for Scolymus, it differeth from the reſt of theſe Thiſtles herein, That the root, if it be ſodden, is good to be eaten: beſides, it hath a ſtraunge nature, for all the ſort of them during the Summer throughout, never reſt and give over, but either they floure, or they apple, or els be readie to bring foorth fruit: and looke when the leaves begin to wither, their pricks looſe their force and will not pierce. H I

* A kind of thiſtle: ſome call it Mans-bloud.
* S. *Mary* thiſtle.

Ixine * is a rare hearbe and geaſon to be ſeene, and not found growing in all countries alike. Immediatly from the root it putteth foorth leaves plentie; out of the mids of which root there ſwelleth out a bunch like an apple, but the ſame is covered with the foreſaid leaves: in the verie top of which fruit, there is contained a gum of a pleaſant taſt, called the Thiſtle-Maſticke. Touching the hearbe Cactos, which groweth alſo in Sicilie and no where els, it hath a propertie by it ſelfe; the ſtalkes whereof ſhooting from the root, creepe along the ground, and it carrieth a broad leafe full of pricks and thorns: and indeed theſe ſtalks thus running upon the earth, the Sicilians call Cactos, which they uſe to keep and preſerve; and being thus condited alſo, they commonly eat, as very good meat. One ſtem it hath growing upright, which they tearme Pternix, as ſweet and pleaſant as the other, but it will not abide to be kept long. The ſeed thereof is covered with a certaine ſoft downe, which they call Pappos, which being taken off with the huske, there remaineth a tender kernell within, which they eat, and find it as delicat as the verie heart of the Date tree top, which is called the Braine: and this pith aforeſaid, the Sicilians name Aſcalia. K

* *Non rara viſum eſt, æquè in omnibus terris naſcitur: Ex Theop.* which is clean contrary to *Plinie.*

The Caltrop-thiſtle Tribulus, groweth not but in moorie grounds and ſtanding dead waters. Surely in other places, folke curſe it as they paſſe by, the pricks and ſpurs ſticke out ſo daungerouſly: but about the rivers Nilus and Strymon, the inhabitants do gather it for their meat. The nature of this plant, is to leane and bend downward in the head to the water: the leafe reſembleth in forme thoſe of the Elme, and they hang by a long ſtele or taile. But in other parts of the world there be two other kinds of Tribulus: the one is leafed like to the Cichling peaſe; the other hath leaves ſharpe pointed: this ſecond kind is later ere it floure, and commonly groweth about the mounds of cloſes lying by villages and towne ſides; the ſeed lyeth in a cod rounder than the other, and blacke withall: whereas the former hath a * ſandie ſeed. Of theſe thornie and prickly plants, there is yet one kind more, namely Ononis, *i.* Reſt-harrow: for it carrieth pricks cloſe to the very braunches: the leafe is like to Rue: the whole ſtalke throughout is ſet with leaves diſpoſed in manner of a guirland. This plant commonly groweth after corn; it * plagueth the plough, and yet there is much adoe to rid it out of a ground, ſo loth it is to die. Of plants that be prickie, ſome have their ſtalkes and braunches training by the ground, as namely that hearbe which they call Coronopus, *i.* Harts-horne, or Buck-horne Plantain: contrariwiſe, there ſtand upright, Orchanet, the root whereof is ſo good to colour wax and wood red. And of ſuch as be more gentle in handling * Camomile, Phyllanthus, Anemone, and Aphace. As for Crepis and * Apate, their L M

* ἀνιμῶδες, for, ἀνθεμῶδες, *in Theophraſt.* *i.* like the ſeed of Seſama.
* And therfore it is called, *reſta bovis*, or *reſta aratri*, becauſe it ſtaieth the draught of the Oxe at plough.
* *Anthemius.*
* Deceit: ſo called, becauſe the bitternеſſe deceiveth many a one, looking like to a kind of Cichorie.

ſtalks

A ſtalks be all leafe. Moreover, this would be noted, that the leaves of hearbs differ one from another, as well as in trees: ſome in the length or ſhortneſſe of the ſtele whereto they hang; others in the breadth or narrowneſſe of the leafe it ſelfe: in forme alſo, whereby you ſhall have ſome cornered, others cut and indented: likewiſe in ſent and floure, for ſome there be that continue longer in flouring than others, and blow not all at once, but one part after another, as Baſill, Tornſoll, Aphaca, and Onocheile.

Chap. xvii.

The difference of hearbs in their leafe: what hearbs they be that floure all the yeere long: of the Aſphodel, Piſtana, and petie Gladen or Sword-graſſe.

B MAny hearbs there be as well as ſome trees, which continue greene and hold their leaves from one end of the yeare to the other, as Tornſoll, and Adianthum or Capillus Veneris. Another ſort there is of hearbs that floure ſpike-wiſe, of which kind are Cynops, Alopecurus, [*i.* Foxtaile,] Stelephuros, which ſome call Ortyx, others Plantaine, (of which I will write more at large among Phyſicke hearbs) and Thryollis. Of theſe, Alopecurus carrieth a ſoft ſpike, and a thick moſſie down, not unlike to Fox tails, whereupon it tooke that name in Greeke: and Stelephurus reſembleth it very much, but that the Foxtaile bloweth not all togither, but beareth floures ſome at one time & ſome at another. Cichorie and ſuch like, have their leaves ſpreading upon the ground, and thoſe put foorth directly from the root, beginning to ſpring immediatly after the apparition of the ſtarre Vergiliæ. As touching Parietarie, there be other nations
C as well as the Ægyptians, who feed upon it: It tooke the name Perdicium in Latine, of the bird Perdix, *i.* the Partridge, that ſeeketh after it ſo much, and plucketh it out of the wals where it groweth: it hath many roots and the ſame thicke. In like manner, the hearbe Ornithogale, *i.* Dogs oinion, hath a ſmall ſtem and a white, but a root *halfe a foot long, the ſame is full of Bulbes like oinions, ſoft alſo, and accompanied with three or foure other ſpurs growing out of it. This hearb they uſe to ſeeth among other pot-hearbes for pottage. I will tell you a ſtraunge qualitie of the hearbe Lotos and of Ægilops: if their ſeed be caſt into the ground, it will not come up in a year. As wonderfull is the nature alſo of the Camomile: for it beginneth to flower in the head, whereas all other hearbes which blow not all at once, flower at the foot firſt. Notable is the Bur likewiſe
D and worthie to be obſerved, I meane that which ſticketh to our clothes as we paſſe by, the flower lieth cloſe and groweth within the ſaid Bur, and never appeareth without-foorth: it is I ſay as it were hatched within, much like to thoſe living creatures that couve and quicken their egs within their bellie. Semblably, about the cittie Opus there is an hearbe called Opuntia, which men delight to eat: this admirable gift the leafe hath, That if it be laid in the ground, it will take root; and there is no other way to plant this hearbe, and maintaine the kind. As for Iaſione, one leafe it hath and no more: but ſo lapped and enfolded, that it ſeemeth as if they were many. Touching Condrylla, the hearbe it ſelfe is bitter: but the juice of the root is hote and biting. Bitter alſo is Aphaca or Dent de Lion: as alſo that which is called Picris, which name it tooke of the exceeding bitterneſſe that it hath; the ſame floureth all the year long. As for Squilla and Saffron, they
E bee both of a marveilous nature: for whereas all other hearbs put out leafe firſt, and then knit round into a ſtem, in theſe two a man may evidently ſee the ſtalk before the leafe. And in Saffron verely, the ſaid ſtalke thruſteth out the floure before it: but in the Sea-onion Squilla, firſt ſheweth the ſtalke, and then afterwards the floure breaketh out of it. The ſame Squilla floureth thrice in the yeere, as I have ſaid heretofore, ſhewing thereby the three ſeaſons of ſeednes. In the range of theſe bulbous and onion-rooted plants, ſome place the root of * Cyperus, that is to ſay, of Gladiatus, [*i.* Petie-gladen, Flags, or Sword-wort:] this is a ſweet root, and being ſodden or baked with bread, it giveth it a more pleaſant taſt; and beſides, it mendeth the weight of bread well if it be wrought & kneaded with it in dough. Not unlike to it is that hearbe which they call Theſion, but that the root is harſh and unpleaſant. All others of the ſame kind differ in leafe. The As-
F phodell hath long and narrow leaves: Squilla is broad leafed, and may be handled without offence; whereas the Gladen leafe is like a ſword blade indeed, and keene-edged according to the name [both in Greeke and Latine.] The Aſphodell ſeed is good to be eaten, if it be parched or fried: ſo is the bulbous root of it alſo; but this ſhould be roſted under the embres, and then eaten with ſalt and oile: Over and beſides, if it be ſtamped with figs, it is an excellent diſh; and this

* *Semipedali.* Dioſcor. hath *Seſquipedali, i.* a foot and a halfe.

* *Cyperi*, or rather *Xyphij*, or *Phaſgani.*

indeed (according to *Heſiodus*) is the onely way to dreſſe it. Moreover, it is ſaid, that Aſphodels G
planted before the gates of any ferme houſe in the countrey, preſerve the place from all charms and ſorceries. *Homer* alſo the Poët hath made mention of the Aſphodell. The root reſembleth
**Napis*: Dioſcor. *Glandibus, id eſt*, nuts or acorns. **Navews of a meane bigneſſe: and there is not another root with more heads, for oftentimes a man ſhall ſee foureſcore bulbs cluſtred in a bunch togither. *Theophraſtus*, and all Greeke writers almoſt, and namely *Pythagoras* (the chiefe prince of Philoſophers) deſcribe this plant to have a ſtem of one cubit in length, yea and oftentimes of twaine; with leaves like to wild Porret: and the ſaid ſtem they called Anthericon; but the root, that is to ſay, thoſe bulbs reſembling onions, Aſphodelas: but our countreymen have named in Latine, the ſtem Albucus; but the root, Haſtula Regia. This is the name alſo of the ſtalke, full of grains or berries: and thereof they would make two kinds [the male and female.] Well, the ſtem of the Aſphodell then, is commonly a cubit long, large and big, cleane and ſmooth. Of this hearbe *Mago* hath written, and ordained, that it ſhould be cut downe in the going out of March and entrance of Aprill, namely, after it hath done flouring, and before that the ſeed be ſwelled and growne to any bigneſſe: then upon the fourth day after, when the ſaid ſtems are ſlit and cloven, they muſt be laid abroad to dry in the Sun: when they be dried, they ought to be made up into knitchets or handfuls. Hee ſaith moreover, that the Greeks name that hearbe Piſtana, which we call in Latine Sagitta, growing in mariſhes and moores among other fennie weeds. This alſo would he have to be cut down and gathered, betweene the Ides of May and the end of the month of October: then, to bee pilled, and ſo to be dried by little and little with the moderat heat of the Sun. The ſame author giveth order like wiſe, that the other kind of Gladiolus, which they call Cypiros, which alſo is an hearb I
growing about lakes and meeres, any time within Iuly ſhould be cut downe to the very root; and the third day after, to be dried in the Sun untill it looke white: but every day that it lyeth abroad, it muſt be brought into the houſe before the Sun goe downe; becauſe all hearbs growing upon mariſh grounds, take harme by dewes in the night.

Chap. xviii.

Of Ruſhes, ſix kinds; and of Cyperus: their medicinable vertues. Of Cypirus, and the ſweet ruſh Scœnanth.

Mago writing of the Ruſh, commonly called Mariſcon, ſaith, That for to twiſt and weave K
into mats, it ought to be gathered out of the mariſh ground where it groweth, in Iune untill mid-Iuly. As for the drying of it, the ſame order muſt be obſerved in all points, as we have ſet downe before in the diſcourſe of other marais weeds. He maketh a ſecond kind of water Ruſhes, which I find to be called the Sea-ruſh, and of the Greeks Oxyſchœnon, *i.* the Sharpe ruſh: which alſo is ſubdivided into three other ſorts; for there is the barraine ruſh, called alſo the male, and in Greeke Oxys: the female Ruſh bearing a blacke ſeed, which they call Melancranis. This is thicker than the other, fuller alſo of braunches and tufts. And the third more than it, which is named Holoſchœnus. Of all theſe, Melancranis commeth up of the own ſeed, without any other kinds intermingled with it: but Oxys and Holoſchœnus, grow both togither out of one turfe. Of all others, the great Ruſh Holoſchœnus is beſt for to be wrought in mats, & ſuch L
like implements about an houſe, becauſe it is ſoft and fleſhie: it beareth a fruit hanging and cluſtering togither in manner of fiſh ſpawne. As for that Ruſh, which we called the male, it groweth of it ſelfe, by reaſon that his top faſteneth in the ground, and ſo taketh root by way of propagation: but Melancranis ſoweth her owne ſelfe, and commeth up of ſeed; for otherwiſe their race would periſh, conſidering the roots of them all every yeere doe die. Theſe Ruſhes are uſed to make leaps and weels for fiſhers at ſea, and fine and daintie wicker veſſels: alſo candle-wick and matches; eſpecially the marow or pith within, which is ſo great (eſpecially about the foot of the Alps reaching to the ſea ſide) that when a Ruſh is ſlit, there is found in the belly a pith almoſt an inch broad by the rule. And in Ægypt there be found Ruſhes ſo big, that they will ſerve to make ſieves, rangers, and vans: in ſuch ſort, that the Ægyptians can find no matter for that purpoſe, M
better. Some there be, that would have the triangled or three ſquare ruſh Cyperus, to be a ſeverall kind by it ſelfe. This Cyperus, many there be that cannot diſtinguiſh from Cypirus, by reaſon of the great affinitie of their two names: but I meane to put a difference betweene them both: for Cypirus is the Petie-glader or Sword-graſſe, (as I have before ſhewed) with a bulbous

or

A or onion-root: the beſt of which kind, groweth in the Iland of Crete: next to it in goodneſſe, is that of the Iſle Naxos: and in a third degree, is to be placed that of Phœnice: and indeed that of Crete or Candie, in * whiteneſſe and odour commeth neare to Nard. The Naxian Cypirus hath a quicker ſent: the Phœnician Cypirus ſmelleth but a little. As for that in Ægypt, it hath no ſavour at all; for there alſo groweth Cypirus. But now to come unto the properties thereof, it hath vertue to diſcuſſe and reſolve hard ſwellings in the bodie. For now my purpoſe is to ſpeake of their medicinable vertues, for as much as there is great uſe in Phyſick, as well of ſuch aromaticall ſimples, as odoriferous floures. As touching Cypirus therefore, I profeſſe verely that I will follow *Apollodorus*, who forbiddeth expreſſely to take Cypirus inwardly in any drinke: and yet he proteſteth, that it is moſt effectuall for them that be trobled with the ſtone, and full of gravell;

B but, by way of fomentation onely. Hee affirmeth moreover, that without all doubt it cauſeth women to travaile before their time, and to ſlip their untimely fruit. But one miraculous effect thereof he reporteth, namely, That the Barbarians uſe to receive the fume of this hearbe into their mouth, and thereby waſt and conſume their ſwelled ſplenes: alſo, they never go forth of dores, before they have drunke a pipe thereof in that manner: for perſuaded they are verely (ſaith hee) that by this means they are more youthfull, lively, and ſtrong. He ſaith moreover, that if it be applied as a liniment with oile, it healeth all merry-galls and raw places where the fleſh is rubbed off or chafed: it helpeth the ranke rammiſh ſmell under the arme-holes; and without faile cureth any chilling, numneſſe, and through-cold. Thus much of Cypirus.

As for Cyperus, a Ruſh it is (as I have ſaid) growing ſquare and cornered: neare the ground

C it is white; toward the top, of a darke blackiſh greene, and fattiſh: the under-leaves that be loweſt, are ſlenderer than leeke-blades: the uppermoſt in the head, are ſmall, among which is the ſeed. The root is like unto a blacke Olive, which if it grow long-wiſe, is called Cyperis, and is of ſingular operation in Phyſicke. The beſt Cyperus is that which groweth among the ſands in Africke, neare the temple of *Iupiter Ammon*: in a ſecond ranke, is that of Rhodes: in a third place may be raunged the Cyperus in Thracia: and in the loweſt degree, that of Ægypt. And hereupon came the confounding of theſe two plants, Cyperus and Cypirus, becauſe both the one and the other grow there. *But the Cyperus of Ægypt is very hard, and hath no ſmell at all; whereas in the other, there is a ſavour reſembling the very Spikenard. There is another hearbe alſo comming from the Indians, called * Cyperis, of a ſeverall kind by it ſelfe, in forme like vnto

D Ginger: if a man chew it in the mouth, it coloureth the ſpittle yellow, like as Saffron.

But to come again to Cyperus, and the medicinable properties therof, It is counted to have a depilatorie vertue for to fetch off haire. In a liniment it is ſingular good for the excreſcenſe of the fleſh about the naile roots, or the departure and looſeneſſe thereof about them; which both imperfections be called Pterygia: it helpeth the ulcers of the ſecret parts, and generally all exulcerations proceeding of rheumaticke humors, as the cankers in the mouth. The root of Cyperus is a preſent remedie againſt the ſtinging of ſerpents, and ſcorpions eſpecially. Taken in drinke it doth deſopilat and open the obſtructions of the matrice: but if a woman drink too much thereof, it is ſo forcible that it will drive the matrice out of the bodie. It provoketh urine, ſo as it expelleth the ſtone and gravell withall: in which regard alſo, it is an excellent medicine for the dropſie.

E A liniment thereof is ſingular for cancerous and eating ſores, but eſpecially for thoſe that be in the ſtomacke, if it be annointed with wine or vinegre tempered with it.

As concerning the Ruſhes beforeſaid, their root ſodden in three hemines of water, untill one third part be conſumed, cureth the cough. The ſeed parched againſt the fire, and ſo drunke in water, ſtaieth the flux of the belly, and ſtopperh the immoderat courſe of womens monthes; but it procureth headach. As for the Ruſh called Holoſchœnos, take that part of it which is next the root, and chew it; then lay it to the place that is ſtung with a venomous ſpider, it is an approved remedie. I find one ſort more of Ruſhes, which they call Euripice; and this propertie withall, That it bringeth one to ſleepe: but it muſt be uſed with moderation, for otherwiſe it breedeth drowſineſſe, lib to the lethargie. Nowſeeing I am entred into the treatiſe of Ruſhes, I muſt needs

F ſet downe the medicinable vertues of the ſweet Ruſh called Squinanth; and the rather, becauſe (as I have alreadie ſhewed) it groweth in Syria ſurnamed Cœle. The moſt excellent Squinanth commeth out of Nabatœa, and the ſame is knowne by the addition or ſurname Teuchites. In a ſecond place is that of Babylon. The woorſt of all is brought out of Affricke, and it is altogether without ſmell. Squinanth is round, of an hote and * fierie taſt, biting at the tongues end.

* *Candor*: ſome read *Color*: i. in colour.

* No more hath *Cypirus* in Ægypt, by his owne ſaying.

* This *Cyperis* is taken to be *Curcuma*, or *Terramerita*, called thereupon corruptly, *Turmericke*.

* *Ignea mordacitatis.*

The true Squinant indeed which is not ſophiſticated, if a man rub it hard, yeeldeth the ſmell of a Roſe: and the fragments broken from it, doe ſhew red. As touching the vertues thereof, It reſolveth all ventoſities, and therefore comfortable it is and good for the wind in the ſtomacke: alſo it helpeth them that puke up choller, or reach and ſpit bloud: it ſtinteth the yex, cauſeth rifting and breaking wind upward: it provoketh urine, & helpeth the bladder. The decoction therof is good for womens infirmities, if they ſit therein. A cerot made therewith, and drie roſin together, is excellent againſt ſpaſmes and cricks that ſet the necke far backward. G

As concerning Roſes, the temperature thereof is hot: howbeit they knit the matrice by an aſtrictive qualitie that they have, and coole the naturall parts of women. The uſe of Roſes is twofold, according to the leafe of the floure, and the floure it ſelfe (which is the yellow.) The head of the Roſe leafe, to wit, the white part thereof, is called in Latin Vnguis, *i.* the Naile. In the yellow floure aforeſaid, are to bee conſidered ſeverally, the ſeed, the hairie threads in the top, the huske and pellicle that covereth the roſe in the bud, and the cup within: and every one of theſe have their proper qualities and vertues by themſelves. The leaves are dried, or the juice is drawn and preſſed out of them three waies: either all whole as they be, without clipping off the white nailes, for therein lyeth the moſt moiſture: or when the ſaid nailes are taken off, and the reſt behind is infuſed in the Sun, lying either in wine or oyle within glaſſes, for oile roſat or wine roſat. Some put thereto ſalt, others mingle withall either Orchanet or Aſpalathus, or els Squinanth: and this manner of juice thus drawne and prepared, is very good for the matrice, and the bloudie flix. The ſame leaves, with the whites taken away, are ſtamped, and then preſſed through a thicke linnen cloth into a veſſell of braſſe; and the ſaid juice is ſodden with a ſoft fire unto the conſiſtence of hony: and for this purpoſe, choiſe would be made of the moſt odoriferous leaves. H I

Chap. xix.

The medicinable vertues of Roſes: of the Lillie and Daffodill, called Laus tibi. Of the Violet, of Bacchar, Combretum, and Azarabacca.

HOw wine of Roſes ſhould be made, I have ſhewed ſufficiently in the treatiſe of divers kinds of wines. The uſe of the juice drawne out of Roſes, is good for the eares, the cankers, and exulcerations in the mouth, the gumbs, the Tonſils or Amygdals, for gargariſms, for the ſtomacke, the matrice, the infirmities and accidents of the tuil or fundement, and the head-ach. Taken alone, it is ſingular good for the ague; with vinegre, for to procure ſleepe, and to reſtraine the heaving of the ſtomacke, and the offers to vomit. The aſhes of Roſes burnt, ſerve to trim the haires of the eyebrowes. Roſes dried and reduced into powder, repreſſe the ſweat betweene the *legs, if it bee ſtrewed upon the place. Dried Roſe leaves doe repreſſe and ſtay the flux of humors into the eyes. The floure [which is the yellow in the mids] procureth ſleepe. The ſame taken inwardly with vinegre and water, ſtayeth the immoderat flux of women; and the whites eſpecially: alſo it repreſſeth the reaching and ſpitting of bloud. The pain of the ſtomack it appeaſeth, being taken in three cyaths of wine. The ſeed or fruit of the Roſe (which is of a Saffron colour) is beſt, ſo it be not above a yeare old, and the ſame dried in the ſhade. As for the blacke, it is naught and good for nothing. To rub the teeth with this ſeed, eaſeth the toothach: the ſame provoketh urine. Being applied to the ſtomack, it is comfortable: & ſo it helpeth S. *Anthonies* fire, if it hath not run too long. If it be drawn up by the noſthrils, it purgeth and cleanſeth the head. As for the heads or knobs, if they be taken in drinke, they knit and bind the bellie, and withall, doe ſtay the flux of bloud upward. The whites or nailes of the Roſe leafe bee ſingular for wateriſh eies, ſo they be applied drie with bread crums. The leaves verely if they be brought onely into a liniment, and outwardly applied, are reputed ſoveraigne for the queaſineſſe and paine of the ſtomack, for the gnawings and other accidents which the bellie and guts bee ſubject unto: alſo for the Midriffe and other precordiall parts. Moreover, they are good to be eaten, if they be condite and preſerved in manner of garden Docke or Patience. But in keeping of Roſe leaves, an eye would be had unto them, for fear leaſt they grow to a mouldineſſe, which quickly will ſettle upon them. Drie Roſe leaves are of good uſe in Phyſicke, yea, the very Roſe cake after the juice and moiſture is preſſed out of the leaves, ſerveth for ſome purpoſe. For of them be made bags and quilts, yea, and drie pouders for to repreſſe ſweat, and to palliat the ſtrong ſmell therof: with this charge and caveat, that preſently after that one is come out of the ſtouve or baine, the pouder bee ſuffered to drie K L M

upon

* *Siccis fœmina aſperguntur*: I doubt that *Plinie* read in *Dioſcorides*, μυρσίνη for μύρτα, *id eſt*, *Vnguenta*: and then it carieth this ſenſe; that dried Roſes & powdered, enter into ſweet ointments.

A upon the bodie, and then afterward waſhed off with cold water. The wild Roſe *leaves reduced into a liniment with Beares greaſe, doth wonderfully make haire to grow again, where (through ſome diſeaſe) it is fallen away.

*or rather the ſpungie ſubſtance growing upon the Cancre brier and wild Roſe.

Lillie roots through their ſingular vertues and operations many waies, have enobled their own flowers. For firſt and formoſt, if they be taken in wine, they bee countrepoyſons againſt the ſting of Serpents, and the venome of Muſhromes. Sodden in wine, and applied in manner of a cataplaſme, and ſo bound to the feet, they mollifie and reſolve the cornes: but this muſt not bee undone and removed in three daies. Boiled with greaſe or oile, they cauſe hair to come again even in places that were burnt. If Lillie roots bee drunke in honied wine, they doe evacuat downeward at the ſeege with other ordure, the cluttered, bruiſed, and hurtfull bloud within the bodie. Over
B and beſides, in this manner they helpe the ſpleene, them that are burſten and bruiſed, and withall, bring downe womens tearmes orderly. But if they be ſodden in wine, and ſo laid too in forme of a cataplaſme, they knit and heale ſinewes that were cut aſunder. They rectifie running tetters and lepries: they ſcoure away dandruffe and pilling skales in the face, they make the skin ſmooth and take away rivels and wrinckles. The leaves of Lillies boiled in vinegre, are good to be laid to greene wounds: reduced into a cataplaſme with Hony, Henbane, and Wheat meale, incorporat and united all together, and ſo applied to the cods, they repreſſe the flux of humours falling to thoſe parts. The ſeed made into a liniment, allaieth the heat of S. *Anthonies* fire. And in the ſame ſort, the flower and leaves applied, doe heale old ſores. As touching the juice, which is expreſſed forth of the flowers, of ſome it is called Mel, [*i.* Honey;] of others Syrium: ſingular good for
C to ſoften and mollifie the Mattice, for to procure ſweat, and to ripen impoſtumes tending unto ſuppuration.

Now for Daffodils, there be two kinds of them admitted by the Phyſicians for to bee uſed in medicine: the one with a purple flower; the other of a graſſe greene. This latter Daffodill is adverſe and hurtfull to the ſtomacke, and therefore cauſeth it to overturne and vomit: it ſetteth the bellie alſo into a flux: contrarie it is to the ſinewes, and ſtuffeth the head: for the which narcotike qualitie of ſtupifying & benumming the ſences, it tooke the name in Greek Narciſſus, of Narce; which betokeneth nummedneſſe or dulneſſe of ſence, and not of the young boy *Narciſſus*, as the Poets doe faine and fable. The roots as well of the one as the other Daffodill, have a pleaſant taſt (as it were) of honied wine: the ſame is good for burnes, applied unto the place with a little
D honey: and ſo it helpeth diſlocations and healeth wounds. Moreover, a cataplaſme made of it honey and oatmeale, doth reſolve or ripen biles and great apoſtemations: and in that ſort it draweth forth ſpils, ſhivers, arrow heads, and thornes, and whatſoever ſticke within the bodie? Being ſtamped and incorporat with Barley groats and oile, it cureth them that be bruiſed and ſmitten with a ſtone. Mingled with meale, it cleanſeth wounds, it ſcoureth the skin from all ſpots that disfigure it, yea, and taketh away the blacke morphew. Of this flower is made the oile Narciſſinum, good to ſupple and ſoften all hard tumors, good alſo to revive and heat again whatſoever is ſtark and benummed with extream cold. And above all, this flower is excellent for the eares: howbeit it maketh the head to ake.

Of Violets, there be ſome wild and of the field: others domeſticall, and growing in our gar-
E dens. The purple Violets are refrigerative and doe coole. And therefore a good liniment is made of them to be applied unto an hot ſtomacke, againſt burning inflammations. A frontall likewiſe may be made of them to bee laid unto the forehead. But a peculiar vertue they have beſides to ſtay the running and waterie eyes: as alſo to helpe the providence or falling downe both of uuill
F and matrice, and to reduce them againe into their places. Moreover, beeing applied to ſwellings and impoſtumations, they reſolve the ſame without any head or ſuppuration. Guirlands being made of Violets and ſet upon the head, reſiſt the heavineſſe of the head, and withſtand the overturning of the braines upon over-liberall drinking; yea, the very ſmell thereof will diſcuſſe ſuch fumes and vapours as would trouble and diſquiet the head. Violets being drunk with water, doe cure the Squinancie. That which is purple in the flower of the Violets, helpeth the falling evill, in children eſpecially, if they drinke it with water. Violet ſeed reſiſteth the poyſon of Scorpions. Contrariwiſe, the flower of the white Violet, to wit, the bulbous ſtocke-Gillofre, is good to breake all impoſtumate ſwellings, whereas March Violets did reſolve them. But as well the white Violets as the yellow wall-flowers are ſingular good to extenuate the groſſe bloud of womens tearmes, and to move urine. Violets if they be freſh and new gotten, are not ſo effectuall for theſe

purpoſes as the drie and old gathered, and therefore they would have a whole yeares drying before they be uſed. The wall-flower being taken to the quantitie of halfe a cyath in three cyaths of water, ſtirreth womens fleurs, and draweth them downe. A liniment made with the root and vinegre together, doe mittigat and allay the paine of the ſpleene: likewiſe it aſſuageth the gout: and being tempered with Myrrhe and Saffron, it is ſingular for inflammations of the eyes. The leaves mixed with honey, cleanſe the head from skurfe and skall: reduced into a cerot, it healeth up the chaps in the ſeat or fundament, as alſo all ſuch Fiſſures in any moiſt place whatſoever. And with vinegre they be good for all collections of humors and apoſtemations. G

Bacchar alſo is an hearbe whereof there is good uſe in Phyſicke. Some of our countreymen have called it in Latine Perpenſa. It aſſourdeth a good remedie againſt Serpents: it qualifieth the exceſſive heat of the head, allaieth the ach, and reſtraineth the flux of humors downe into the eyes. A cataplaſme is made therof for womens breaſts ſwelling immediatly upon childbirth, for to breake the kernell; alſo for fiſtulous ulcers beginning to breed between the corners of the eyes and the noſe; and S. *Anthonies* fire. The very odour thereof is a good inducement to ſleepe. The root ſodden and taken in drinke, is ſingular for them that are troubled with crampes & convulſions; that have fallen from on high; that be drawne together with ſpaſmes; and finally, for ſuch as labour for wind. A decoction made of three or foure of the roots, boiled away to the thirds, is given with good ſucceſſe for an old cough. And this drinke or Iuleb is very convenient for to purge women that have travelled and beene delivered before their time. It taketh away the ſtitches in the ſide, cureth the pleuriſie, and skoureth the ſtone. Hereof be bags and quilts made, and thoſe if they bee laid in a Ward-robe amongſt clothes and apparrell, cauſeth them to ſmell ſweet. H I

As for Combretum (which I ſaid was much like unto Bacchar) if it be beaten to pouder, and tempered with Hogs greaſe, it maketh a ſoveraigne ſalve that healeth wounds wonderfully. Aſarum (by report) is an appropriat medicine for the liver, if an ounce of it be taken in one hemine of honied wine. It purgeth the bellie as violently as Ellebore. In caſe of the Dropſie it is ſingular; as alſo for the Midriffe, precordiall parts, the Matrice, and the Ianiſe. If it bee put into new wine when it worketh, and ſo tunned up, it maketh a ſingular diureticke wine for to provoke urine: It muſt for this purpoſe be digged out of the ground, when the leaves begin to put forth. Dried it ought to be in the ſhade: although it be ſubject to corruption, and mouldeth very ſoone.

Chap. xx. K

Of *French Nard*, and *Saffron*. The medicinable vertues of Saffron, and the cake or dregs thereof. Of Saliunca, Polium, and Flower-de-lis. Of Holochryſon, Chryſocome, and Melilote.

FOr as much as ſome have taken ruſticke Nard to be the root of Bacchar, and ſo named it: the which hath put me in mind of French Nard, and the promiſe which I made in my treatiſe of ſtrange and forraine trees, to put off no longer than this place for to ſpeake of it, and the properties thereto belong. To acquit my ſelfe therefore, I will here ſet downe the vertues of the ſaid Nard, as touching Phyſicke. Firſt therefore, if two drams of French Nard bee taken in wine, it is ſingular againſt the ſting and biting of Serpents. *Item*, If one drinke it either in wine or water, it eaſeth the paſſions of the Collicke, proceeding from the inflammation of the gut Colon. In like ſort it cureth the inflammation of the liver and the reines: the overflowing alſo of the gall and the laundiſe therupon. Taken alone by it ſelfe or with Wormewood, it is a good remedie for the Dropſie. It repreſſeth the immoderat flux of womens flowers. L

Zedoarium. As touching Setwall or Valerian, which in the foreſaid place we named Phu; the *root either beaten into pouder or ſodden and ſo given in drinke, is excellent for the riſing of the Mother, which threateneth ſuffocation; for the paines of the breaſt and pluriſie. The ſame provoketh the courſe of womens tearmes, ſo it be taken in wine.

Saffron will not reſolve nor be mixed well with honey or any ſweet thing. Howbeit, in wine or water it will diſſolve very ſoone and be incorporated therwith. A ſoveraigne ſpice this is, and ſingular for many maladies. The beſt way to keepe Saffron, is within a box of horne. It diſcuſſeth verely all inflammations, but principally thoſe of the eyes, if together with an egg it bee applied in forme of a liniment. Excellent it is for the ſuffocation of the matrice, the exulcerations M

of

A of the ſtomacke,breaſt,kidneies,liver,lungs,and bladder: and more particularly,if any of theſe parts be inflamed,a proper remedie alſo it is in that caſe. Likewiſe it cureth the cough and pleuriſie.It killeth an itch,and provoketh urine. Our wine-knights when they purpoſe to ſit ſquare at the taverne and carouſe luſtily, if they drinke Saffron, never feare ſurfeit nor the overturning of
F their braine: and they are verely perſuaded, that this keepeth them from drunkenneſſe, and maketh them carie their drinke well. Certes, a Chaplet of Saffron upon the head, dooth allay the fumes aſcending up thither,and prevent drunkenneſſe. Saffron induceth ſleepe, but it troubleth the braine *ſomewhat. It pricketh forward to wanton luſt. The flower of Saffron reduced into a liniment with white Fullers earth,helpeth the Shingles and S. *Anthonies* fire. And Saffron it ſelfe entereth into very many compoſitions of Phyſicke.One Collyrie or *eye-ſalve there is,which ta-
B keth the name alſo of Saffron. And when the ointment made of Saffron called Crocinium, is ſtrained and preſſed out,the grounds which remaine is named Crocomagma, which alſo is not without ſome eſpeciall uſes,for it cureth the ſuffuſion of the eyes, or the cataract: but it cauſeth ordeur and heat of urine more than Saffron it ſelfe.The beſt is that accounted,which if a man taſt in his mouth,doth colour his ſpittle and ſtaine his teeth.

* Nay it is a great enemie unto it.

* *Dia-crocu. Paul. Ægin.*

As touching the Flower-de-lis, the red is thought to bee better than the white. Certes if little infants doe weare it tied about them by way of necklace,collar,or girdle,it is ſuppoſed to be a
F ſingular remedie,eſpecially when they breed teeth or have the chincough.Alſo if they bee troubled with the *worms,they hold it good gently to inſtill the ſame into the body[either by drink or clyſters.]All other operations that the Flower-de-lis hath, differ not much in effect from honey.
C A ſingular propertie it hath to cleanſe the head from ſores and ſkals, and generally to mundifie all old impoſtumate ulcers. Two drams therof taken with honey,eaſeth the bellie,and provoketh to the ſtoole.Given in ordinarie drinke,it ſtaieth the cough,appeaſeth wrings,and diſſolveth ventoſities in the bellie.In vinegre it openeth the opilations of the ſpleen.And being taken with water and vinegre together, it is an effectuall remedie againſt the ſtinging of ſerpents and ſpiders. The weight of two drams eaten with bread or drunke in water, reſiſteth the poyſon of ſcorpions. Being made into a liniment with oile,and ſo applied,it cureth the bitings of mad dogs, & heateth the parts mortified with extreame cold.In the ſame manner alſo it allaieth the pains of the ſinewes.Reduced into an ointment with Roſin,it is ſingular for the paine of the loins & the gout Sciatica.This root is hote in operation.If it be drawne or ſnuffed up into the noſe,it cauſeth ſneeſing,and purgeth the head.A liniment of it & Pome-quinces or Peare-quinces,eaſeth the head-
D ach: it repreſſeth alſo the vapours flying up into the head, cauſing diſtemperature of the brain,
F in a ſurfeit of wine or ſtrong drinke. It helpeth ſtreightneſſe of breath, and ſuch as cannot take their wind but ſitting upright.It provoketh vomit,if it be taken to the weight of two Oboli.A cataplaſme of it & honey together,draweth forth ſpils of broken bones.The pouder of it is much uſed for Whit-flawes: and the ſame applied with wine, taketh away corns and werts: but it muſt lie on three daies before you unbind and take it from the place. The very chewing of it, correcteth a ſtrong and ſtinking breath: as alſo the filthie ſavour of the arme-holes. The juice thereof doth mollifie all hard tumors. It provoketh ſleepe, but it conſumeth ſperme or naturall ſeed. The Fiſſures in the ſeat, as alſo the blind and ſwelling piles in the fundament and all ſuperfluous
E excreſſences of the bodie,it cureth.

* *Tinearum vitio. Plinie* commonly taketh *Tineas* for wormes in the belly: although otherwiſe it betokeneth ſores and ſkals in the head.

There is a wild kind of Floure-de-lis,which ſome call Xyris: the root of this hearb is good to reſolve and diſcuſſe the ſwelling kernels named the Kings evill, hot biles,and riſings in the groin. Howbeit for to worke theſe effects,there be certaine ceremonies preciſely to be obſerved,namely,That it be taken out of the ground with the left hand in any caſe. *Item*, that they who gather it doe ſay in the gathering,For whoſe ſake they pluck it up; and withall,name the perſon.And here in making mention of this matter,I cannot but detect the knaverie of theſe Herbariſts and Simplers: Their maner is not to employ and occupie all that they have gathered,but reſerve & keepe part thereof,as alſo of ſome other hearbs,as namely of Plantaine: and if they bee not well contented,nor thinke themſelves paied throughly for their paines in the cure, they make no more
F adoe but burie and cover within the earth that part which they kept by them, in the ſame place where it was digged forth. And I beleeve verely they have an unhappie meaning and a certaine kind of witchcraft herein: forſooth,That the maladies which they ſeemed to have healed,ſhould breake out and be ſore againe,to the end that they might be ſet on work anew. As touching Saliunca,the decoction of it in wine and ſo taken,ſtaieth vomits,and doth corroborat the ſtomack.

Muſæus

Muſæus and *Heſiodus* the Poets have a great opinion of Polium: for they give counſell to all G
thoſe that would come to preferment & promotion, for to be annointed all over with a liniment thereof: ſuch alſo as be deſirous of renowme and glorie, to be ever handeling of it, to ſet it alſo, and maintaine it in their gardens. True it is, that folke doe carie Polium about them ordinarily, or lay it under their beds for to chaſe away ſerpents. Phyſicians doe ſeeth it either new and green, or drie, in wine, and thereof make a liniment: or els they give it to drink in vinegre, to thoſe that be pained with the jaundiſe; yea, and to ſuch as be newly fallen into the dropſie, they give counſell to drinke the decoction thereof, being ſodden in wine. And of it ſo prepared, they make a liniment for to be applied unto greene wounds. Moreover, this hearbe is very good to ſend out the after-burden in women newly brought to bed, and to expell the dead infant out of the mothers wombe. And otherwiſe it ſerveth very well to mitigate any paines of the bodie. It doth purge and H
evacuat the bladder: and in a liniment applied to the eyes, reſtraineth their exceſſive watering. I know not any other hearbe better to goe with other ingredients into antidots or counterpoyſons (named of the Greekes Alexipharmaca) than this. Howbeit, ſome denie all this, and are of opinion that it is hurtfull to the ſtomacke, that the drinking of it ſtuffeth the head, and cauſeth women to fall into labour before their time. They ſay alſo, that this ceremonie would be precisely obſerved, That in the very place where this plant is found, ſo ſoone as ever it is gathered it ſhould be hanged preſently about the neck of the partie, with a ſpeciall care that it touch not the ground firſt, and then is it an excellent remedie for the cataract in the eye. And theſe authours deſcribe this hearbe to have leaves like to Thyme, but that they bee ſofter and covered over with a more hoarie and woollie downe. Being taken with wild Rue in raine water, ſo that it bee beaten before I
into pouder, it doth mitigat (by report) the deadly paines cauſed by the ſting of the Aſpis, it bindeth and draweth up a wound, it keepeth corroſive ſores from feſtering and going farther, as well as the flowers of the Pomegranat.

As namely *Dioſcorides.*

The hearb Holochryſos if it be taken in wine, helpeth the ſtrangurie, and ſuch as cannot piſſe but by drops. And a liniment thereof is paſſing good to repreſſe the flux of humors to the eies. If it bee incorporat with Tartar or wine lees burnt into aſhes, and drie Barley groats; it mundifieth the skin, and riddeth away ring-wormes, tettars, and ſuch like wild fires.

As for Chryſocome, the root of it is hote, and yet aſtringent. It is given to drinke for the diſeaſes of the liver and the lights. And being ſodden in honied water, it aſſuageth the paines incident to the matrice. It provoketh womens monthly purgation: and being given in drink raw, K
it purgeth waterie humors gathered in the dropſie.

Touching Baulme, which the Greekes call Melittis or Meliſſophyllon: if Bee-hives be rubbed all over and beſmeared with the juice thereof, the Bees will never away; for there is not a flower whereof they bee more deſirous and faine, than of it: and in truth, looke in what garden there groweth abundance of this hearbe, the Bees there when they ſwarme, will bee ſoone intreated to tarie, and not be haſtie to wander far abroad. The ſame is a moſt preſent remedy not only againſt their ſtings, but alſo of weſpes, ſpiders, and ſcorpions. And being tempered with a little nitre, it is ſingular againſt the *ſtrangulation of the mother. Taken it wine, it pacifieth the wrings and torments of the bellie. The leaves thereof being ſodden with ſalt, and brought into an ointment, are ſingular good for to be applied unto the ſcrophules or ſwelling kernils called the Kings evill: and L
likewiſe to the accidents of the ſeat and fundament, as the ſwelling hæmorrhoids or piles. The juice taken in drink, bringeth women to their ordinary monthly courſes: it diſcuſſeth ventoſities, and healeth ulcers: it allaieth the paines of any gouts, and cureth the biting of mad dogs: it is good for the bloudie flix that hath run on a long time: as alſo thoſe fluxes which proceed from the imbecillitie of the ſtomacke: it helpeth them that bee ſtreight in the cheſt, and cannot take their wind but bolt upright: it mundifieth alſo the ulcers within the breaſt. To conclude, it is ſaid to be a ſingular remedie & none like unto it, for to diſpatch the webs in the eye, if they be annointed with the juice thereof and honey tempered together.

* *Dioſcorides* hath μυκήτων, *i.* Muſhromes: whereof there be ſome that be daungerous for ſuffocation. But *Plinie* as it ſhould ſeeme, read it μητρῶν, and accordingly hath tranſlated it.

Melilote alſo is thought to be good for the eyes, if it bee applied with milke or line ſeed. It aſſuageth alſo the paine of the jawes and head, if it be laid too with oile of Roſes: likewiſe it dooth M
mitigat the paine in the eares, if it be inſtilled or dropped into them with wine cuit. Moreover, the tumors and breaking out of the hands it helpeth. Being boiled in wine, or ſtamped greene, it eaſeth the greeſe of the ſtomacke. The ſame effect it hath in the paine of the matrice. But if the cods be amiſſe, if the Longaon or tuill be fallen, and beare out of the bodie; or if that part bee

affected

affected with other accidents, Bath the place with a decoction of it, boiled green in water or cuit, and the patient ſhall find eaſe. But if there bee an ointment made of it and oile of Roſes incorporat together, it is a ſoveraigne remedie for all cancerous ſores. If it be boiled firſt in ſweet wine or cuit, it is the better for the purpoſe aforeſaid: and ſo prepared, a ſpeciall and effectuall thing it is for the wens called Melicerides, wherein is engendred matter reſembling honey.

Chap. xxi.

Of Trefoile, and Thyme: of the day Lillie Hemerocalles: of Elecampane, and Sothernewood, and Cypres.

I Am not ignorant, that folke are verely perſuaded, how that Trefoile or three leaved graſſe, is of great force againſt the ſtings of ſerpents and ſcorpions, if either twentie grains of the ſeed bee taken inwardly in wine, or water and vinegre together; or if the leaves and the whole hearbe be ſodden, and the decoction drunke: as alſo, that ſerpents are never ſeen to lie under this Trefoile. Moreover, I know full well that diverſe Authors renowmed and of great credit, have delivered in their bookes, That five and twentie grains of that Trefoile, which wee called Menianthes, is ſufficient for a preſervative and antidote againſt all poyſons whatſoever: beſides many other medicinable vertues which bee aſcribed to this hearbe. But for mine owne part, I am induced by the authoritie of the moſt grave and reverend Poet *Sophocles*, to ſtand againſt their opinion: for he affirmeth plainely, That Trefoile is venomous. Likewiſe, *Simus* the Phyſician dooth report, That if the decoction of it ſodden, or the juice thereof ſtamped, bee poured or dropped upon any part of the bodie which is ſound, it will cauſe the ſame fierie and burning ſmart as followeth upon a place bitten or ſtung with a ſerpent. And therefore I would thinke with them, and give counſell alſo, that it is not to be uſed otherwiſe than a countrepoyſon. For it may be peradventure, that in this as in many other, one poyſon (by a certaine antipathie & contrarietie in nature) expelleth and mortifieth another. Moreover, this I mark and obſerve in their writings, That the ſeed of the Trefoile which hath ſmalleſt leaves, if it bee reduced into a liniment, is ſingular good to embelliſh womens skin, and to preſerve their beautie, if the face be annointed therwith.

Thyme ought to be gathered whiles it is in the flower, and then to be dried in the ſhade. Now there are of Thyme two kinds, to wit, the white; which hath a woodie root, growing upon little hils; and this is thought to be the better: the ſecond, is blacker, & carieth beſides a black flower. They are thought both of them, the one as well as the other, very good to cleare the eyeſight, whether they be eaten with meats or taken as a medicine. In like maner, an electuarie or lohoch made of Thyme, is ſuppoſed to be excellent good for an old cough: and being taken with hony and ſalt, to raiſe and breake fleame, cauſing the ſame to be raught up with more facilitie. Alſo that if it bee incorporat with honey, it will not ſuffer the bloud to clutter and congeale within the bodie. Applied outwardly as a liniment with Senvie, it dooth extenuat and ſubtiliat the rhewme that hath of long time fallen into the throat and wind pipe: and ſo likewiſe it amendeth the greevance of ſtomacke and bellie. Howbeit, theſe Thymes muſt bee uſed with meaſure and moderation: becauſe they ſet the bodie into an heat, although they be binding & make the belly coſtive. Now in caſe there be an exulceration in the guts, there muſt be taken the weight of one denier or dram in Thyme, to every ſextar of honey and vinegre: ſemblably, it muſt bee ordered in caſe of the pleuriſie; and when there lieth a paine betweene the ſhoulders or in the breaſt. A drink made of Thyme with honey and vinegre in manner of a juleb or ſyrrup, cureth the greefe of the midriffe and precordiall parts neare unto the heart. And verely a ſoveraigne potion this is to bee given unto them that bee troubled in mind and lunaticke, as alſo to melancholicke perſons. The ſame alſo may bee given to thoſe who bee ſubject to the epilepſie or falling ſickneſſe: whom the very perfume and ſmell of Thyme will raiſe out of a fit, and fetch them againe, when the diſeaſe is upon them: It is ſaid, that ſuch ſhould lie ordinarily in a ſoft bed of Thyme. This hearbe is proper for thoſe that cannot draw their breath unleſſe they ſit upright, and to ſuch as are ſhort winded, yea, and good for women, whoſe monthly courſes are either ſuppreſſed or come but ſlowly. And ſay that the infant were dead in the wombe, a decoction of Thyme, ſodden in water unto the thirds & ſo taken, doth ſend it forth of the bodie. Men alſo do find a great benefit by Thyme, if they drinke a ſyrrup made of it with honey and vinegre, in caſe of ventoſities and inflations: alſo, if their bellies be ſwolne or their cods; yea, and when their bladder is pained. Moreover, if it

be

be applied as a cataplasme with wine, it assuageth all tumors, and bringeth downe swellings: it G
staieth also the impetuous and violent flux of any humours to a place, readie to breed an impostumation. But if the same be applied with vinegre, it taketh away werts and hard callosities. It is good for the Sciatica and other gouts, for dislocations and lims out of joint, being beaten unto pouder, and bestrewed upon a quilt of wooll, moistned and bathed with oile, and so laid unto the place in manner of a fomentation. A potion also thereof is usually given in case of the Gout, to wit, the weight of three Obols, in as many cyaths of vinegre and honey. Also when the stomack riseth against meat and refuseth it, a drage or pouder of it with salt, bringeth the appetite again.

The day Lillie Hemerocalles, hath leaves of a pale and wanniſh greene colour, otherwise soft and gentle: the root is bulbous or Onion like, and odoriferous: which if it bee laid to the bellie in manner of a cataplasme, doth evacuat waterie humors, yea, and thicke bloud that lieth cluttered within the bodie readie to do a mischeefe. The leaves make an excellent liniment to annoint the eyes and the parts about it, as a defensative against the rheume falling thither with violence; as also to be applied unto the paps and breasts of women, which ake and are pained presently after child-birth. H

Helenium, an hearbe which sprang first from the teares of ladie *Helena*, as I have alreadie shewed, is thought to have a speciall vertue to preserve beautie, and to maintaine the skin fair, pure, and delicat, as well in the face of women, as in other parts of their bodie. Moreover, a deep opinion there is of this hearbe, that whosoever use it shall proove amiable and gracious: they shall I say, win love and favour whersoever they come. Also there is attributed and prescribed to this hearbe, if it be taken in wine, a mightie operation to procure mirth and make the heart merie: and it is thought to be as effectuall that way, as was that noble drinke Nepenthes (so highly commended in *Homer*) so called, for that it puts away all heavinesse, sorrow, and melancholie. And in faith the juice of Helenium is *passing sweet and pleasant. The root of Helenium taken in water upon an emptie stomacke when a man is fasting, is very good for them that are streight winded, & cannot take their breath but upright. Now is this root white within and *sweet also as is the hearbe. The same is given to drinke in wine against the sting of serpents. To conclude, being beaten into pouder, it is said for to kill Mice. I

As touching Abrotonum, I find that there be two kinds of it. The one of the plaines, which I take to be the male; the other of the mountaines, which I would have to goe for the female. Neither of them both there is, but it is as bitter as Wormewood. The best is that which groweth in Sicilie: next to which, that of Galatia is most esteemed. The leaves are much used, but the seed much more, for to heat and chause any part of the bodie. And therefore it is good and comfortable for the sinews: it cureth the cough: it procureth them libertie of breath, who cannot fetch their wind lying or leaning with their heads: it helpeth the crampe: it doth consolidat ruptures: it easeth the pain of the loines, and maketh free passage for urine. The right manner of the decoction as well of the one as the other, is to seeth them in bunches or bundles like handfuls, untill a third part of the water bee consumed; and foure cyaths is an ordinarie draught of this decoction. The seed also being beaten into pouder, is given to the weight of a dram in water, for a drink. And indeed so taken, it comforteth the matrice and the naturall parts of women. A poultesse made of it and Barley meale, applied unto dull and broad swellings which gather not quickly to an head, doth ripen them apace and bring them to suppuration. Also being reduced into a liniment with a quince rosted or baked, it cureth the inflamination of the eyes, if they be annointed therwith; it hath a vertue to drive away serpents; and in case one bee stung with them alreadie, it expelleth the poyson, taken inwardly in drinke; or laid too outwardly in forme of an ointment, draweth it forth. But most effectually is the power thereof seene, in those poysoned and venomous stings which cause the bodie to shake, chill, and quake for cold; as namely, those of scorpions, & the spiders called Phalangia. Moreover, good it is also for other poysons, if it be taken in drinke: and so it helpeth those that bee surprised with any extreame cold howsoever. This propertie likewise it hath, to draw forth of the bodie all spils or any thing els that sticketh within the same. It driveth out of the bodie the wormes engendred in the guts. Finally, it is said, that if a braunch thereof be laid under the pillow where folke lieth in bed, it will put them in mind of wantonnesse, and provoke them to lust: and against all charmes, enchantments, & witchcrafts, which coole the heat of the flesh, and disable or bind any person from the act of generation, it is the most powerfull heath of all others. K L M

*So is not *Inula*, or our Elecampane. And therfore either it is not Helenium here: or els *Plinie* doth mistake in this place, as in many others.

*which agreeth not with ours.

CHAP.

A

Chap. xxii.

The medicinable vertues of Leucanthemum, and Sampſuchum, [i. Marjerom.]

LEucanthemum mingled with two parts of vinegre, and ſo given to drinke, is good for thoſe that be ſhort winded. As for Sampſuchum or Amacacum, that of Cyprus is moſt commended, and the ſweeteſt of all other: this heatb brought into a liniment, and applied with vinegre and ſalt, is good againſt the venome of Scorpions. Moreover, if it be put up into the naturall parts of a woman in forme of a peſſaine, it helpeth much to bring downe their monethly courſes: for if it be taken in drinke, it is not ſo effectuall. Applied as a liniment, after it is incor-
B porat with barley groats, it reſtraineth the flux of humors to the eyes. The juice thereof when it is ſodden, diſcuſſeth and diſſolveth the ventoſities that moove pangs and wrings in the belly. A good medicine it is to provoke urine, and by conſequence, for thoſe that be in a dropſie. Marjoram dried, mooveth ſneezing. Thereof is made an artificiall oile, called Sampſuchinum or Amaracinum, ſingular for to heat the ſinewes, and to mollifie their ſtiffeneſſe and hardneſſe: as alſo by the heat thereof to comfort the matrice. The leaves applied with honey, ſerve very well to reduce the blacke and blew marks occaſioned by ſtripes or bruiſes, to their naturall and lively colour: and brought into a cerot with wax, it is good for diſlocations of joynts.

Chap. xxiii.

C

The vertues and properties of Anemone or Windfloure, requiſit in Phyſicke.

WEe have diſcourſed of Anemone and thoſe kinds thereof, which go to the making of chaplets and garlands: it remaineth now therefore to ſpeake of thoſe which ſerve for good uſe in Phyſicke. But firſt as touching Anemone in generall: ſome there be who call it Phenion; and two principall kinds there be of it: The firſt groweth wild in the woods: the ſecond commeth in places well tilled and in gardens; but both the one and the other love ſandie grounds. As for this later kind, it is ſubdivided into many ſpeciall ſorts: for ſome have a deepe red ſcarlet floure; and indeed ſuch are found in greateſt plentie: others beare a purple floure: and there be againe which are white. The leaves of all theſe three be like unto Parſley. None of them
D ordinarily grow in heigth above halfe a foot; and in the head of their ſtemme, they ſhoot forth ſprouts in manner of the tendrils of Aſparagus. The floure hath this propertie, Never to open but when the wind doth blow; whereupon it tooke the name * Anemone in Greeke. But the wild Anemone is greater and taller: the leaves alſo are larger; and the flours are of a red colour. Many writers, beeing carried away with an error, thinke this Anemone and Argemone to be both one: others confound it with that wild Poppie which we named Rhœas: but there is a great difference betweene them, for that both theſe hearbs doe floure after Anemone: neither doe the Anemonæ yeeld the like juice from them, as doth either Argemone or Rhœas before-named: they have not alſo ſuch cups and heads in the top, but onely a certaine muſculoſitie at the ends and tips of their braunches, much like to the tender buds of Aſparagus.

Hereupon Anemone is called Role-parſley.

* ἀνεμὸς in Greeke, betokeneth Wind: whereupon *Ruellius* called it *Herba-venti:* and *Gerard*, Wind-floure more properly.

E All the ſorts of Anemone or Wind-floure, bee good for the head-ach and inflammations thereof; comfortable to the matrice of women, and encreaſeth their milke. Being taken inwardly in a Ptiſane or barley gruell, or applied outwardly as a cataplaſme with wooll, this hearbe provoketh their monthly tearms. The root chewed in the mouth, purgeth the head of fleame, and cureth the infirmities of the teeth. The ſame being ſodden, and laid to the eyes as a cataplaſme, repreſſeth the vehement flux of waterie humours thither. The Magicians and Wiſe men, attribute much to theſe hearbs, and tell many wonders of them; namely, That a man ſhould gather the firſt that he ſeeth in any yeere, and in the gathering to ſay theſe words, *I gather thee for a remedie againſt tertian and quartan agues:* which done, the partie muſt lap and bind faſt in a red cloth the ſaid floure, and ſo keepe it in a ſhadie place; and when need requireth, to take the ſame,
F and either hang it about the necke, or tie it to the arme or ſome other place. The root of that Anemone which beareth the red floure, if it be bruiſed and laid upon any living creature whatſoever, raiſeth a bliſter, by that cauſticke and corroſive vertue which it hath: and therefore it is uſed to mundifie and cleanſe filthie ulcers.

Chap. xxiiii.

The vertues of Oenanthe in Physicke.

OEnanthe is an hearb growing upon rockie and ſtonie grounds. The leaſe reſembleth thoſe of the Parſnep: roots it hath many, and thoſe big. The ſtem and leaves of this hearbe, if they be taken inwardly with honey and thicke ſweet wine, doe cauſe women in labour to have eaſie deliverance, and withall, do cleanſe them well of the after-birth. Eaten in an electuarie, or licked in a lohoch made with honey, the ſaid leaves doe rid away the cough, and provoke urine. To conclude, the root alſo is ſingular for the infirmities and diſeaſes of the bladder.

Chap. xxv.

The medecines made with the hearb Heliochryſon.

HEliochryſon, which others name Chryſanthemon, putteth footh little braunches verie faire and white: the leaves are whitiſh too, much like unto Abrotomum: From the tips and ends of which braunches, there hang downe certaine buttons (as it were) like berries round in a circle, which with the repercuſſion and reverberation of the Sun-beames, doe ſhine againe like reſplendent gold. Theſe tufts or buttons, do never fade nor wither: which is the cauſe that the chaplets wherewith they crowne and adorne the heads of the gods, be made thereof: a ceremonie that *Ptolomæus* K. of Ægypt obſerved moſt preciſely. This hearbe groweth in rough places among buſhes and ſhrubs. If it be taken in wine, it provoketh urine, and womens fleures. All hard tumors and inflammations it doth diſcuſſe and reſolve without ſuppuration. A liniment made with it & honey, is good to be applied unto any place burnt or ſcalded. It is given in drinke uſually for the ſting of ſerpents: for the paines and infirmities alſo of the loines. If it be drunke in honyed wine, it diſſolveth and conſumeth the cluttered bloud, either in the belly and guts, or the bladder. The leaves taken to the weight of three Oboli in white wine, doe ſtay the immoderat flux of the whites in women. This hearbe, if it be laid in wardrobes, keepeth apparell ſweet, for it is of a pleaſant odour.

Chap. xxvi.

The vertues and properties of the Hyacinth, and Lychnis, in Phyſicke.

THe Hyacinth loveth Fraunce very well, and proſpereth there exceedingly. The French uſe therewith to die their light reds or luſtie-gallant, for default of graine to colour their ſcarlet. The root is bulbous and onion-like, well knowne to theſe ſlave-courſers, who buy them at beſt hand; and after, tricking, trimming, and pampering them up for ſale, make gain of them: for being reduced into a liniment, they uſe it with wine to annoint as well the ſhare of youths, as the chin and cheeks; to keepe them for ever being under-growne, or having haire on their face, that they may appeare young ſtill and ſmooth. It is a good defenſative againſt the pricke of venomous ſpiders; and beſides, allaieth the griping torments of the belly. It forcibly provoketh urine. The ſeed of this hearbe given with * Abrotonum, is a preſervative againſt the venome of ſerpents and ſcorpions; and cureth the jaundiſe.

*ὑπὸ in *Dioſcorides*, it ſeemeth he read ἀβροτόνῳ.

As touching Lychnis, that flaming-hearbe ſurnamed Flammea, the ſeed of it beaten into powder and taken in wine, is ſingular good againſt the ſting of ſerpents, ſcorpions, hornets, and ſuch like. The wild of this kind is hurtfull to the ſtomacke, and yet it is laxative and purgeth downward. Two drams thereof is a ſufficient doſe to purge choller, for it worketh mightily. Such an enemie it is to ſcorpions, that if they doe but ſee it, they are taken with a nummedneſſe that they cannot ſtir. In Aſia or Natolia, they call the root of this hearbe Bolites, which if it be laid upon the eyes and kept bound thereto, taketh away the pin and the web, as they ſay.

Chap. xxvii.

The medicinable vertues of Pervincle, Ruſcus, Batis, and Acinos.

ALſo the Pervincle, called by the Greeks *Chamædaphne, if it be ſtamped drie into powder, and a ſpoonfull thereof given in water to thoſe that are full of the dropſie, it doth evacuat moſt ſpeedily, the waterie humors collected in their belly, or otherwiſe. The ſame root roſted

* or rather, *Daphnoides*, out of *Dioſcor.*

A roſted in embres, and well ſprinkled and wet with wine, diſcuſſeth and drieth up all tumors, being applied thereto. The juice thereof dropped into the eares, cureth their infirmities. A cataplaſme of it applied to the belly, helpeth them (as they ſay) very much, who are vexed either with gripes or fluxes of the wombe.

Concerning Ruſcus, the decoction of the root, if it bee given in drinke each other day, to them that be tormented either with the ſtone, or the wringing pains of the ſtrangurie, or to ſuch as piſſe bloud, it helpeth them. Now the preparing of this medecine, and the proportion alſo of it, is in this wiſe: The ſaid root muſt be taken out of the ground, as it mought be to day, and to morrow morning betimes it would be ſodden: and a ſextar of this decoction is to bee mingled with two cyaths of wine, and ſo the Patient is to drinke it. Some make no ſuch adoe, but take the
B root while it is green, ſtamp it, & in water draw the juice raw as it is, & ſo drinke it. In ſum, it is held for certein, That there is no better thing in the world for the infirmities and diſeaſes incident to the privie members of men, than to bruiſe the tender crops of this hearbe, and then with wine and vinegre to preſſe out the juice, and afterwards to drinke the ſame. In like manner, *Batis is good for them that be bound and coſtive in the belly: and a liniment of it, after it is roſted in the embres and ſtamped, is ſingular for the gout. Laſt of all, as touching the hearb Acinos, the Ægyptians uſe to ſow it, as well to make guirlands thereof, as to eat it. Surely, I would ſay it were Baſill, but that the braunches and leaves be more hairie; for certeinly it is very odoriferous. It hath a propertie to provoke urine, and womens fleures.

* Taken by the moſt part, for wild Baſill.

C

Chap. xxviii.

The medicines that Colocaſia or the Ægyptian Beane doth affourd.

G*Laucias* was of opinion, That Colocaſia was good to lenifie or mitigat the acrimonie of humors within the bodie; and withall, to helpe the ſtomacke.

Chap. xxix.

The medicines made of Anthalium.

D TOuching Anthalium (whereof the Ægyptians uſe much to eat) I find no other uſe of it, but onely from the kitchin to the table. Indeed there is an hearb much like to it in name, which ſome call * Anthyllion, others Anticellion: whereof bee two kinds; The one hath leaves and braunches like to the Lentill, and groweth a hand-breadth or ſpan high: it commeth up in * ſandie grounds expoſed to the Sun, and is ſaltiſh in taſt. The other reſembleth * Chamæpitys, but that it is lower and more hairie: it beareth a purple floure, carrieth a ſtrong ſent, and loveth to grow in ſtonie places. The former kind is a moſt convenient and proper hearb for the diſeaſes of the matrice and the naturall parts of women. Alſo being applied as a cataplaſme with oyle roſat and milke, it is a vmbretarie medicine. In caſe of the ſtrangurie and pains of the kidnies, it is given with good ſucceſſe to the quantitie of three drams. The other likewiſe is given to drink the weight of foure drams with honey and vinegre, for to mollifie the hardneſſe of the matrice, to
E aſſuage the torments of the belly, and to cure thoſe that be taken with the falling ſickneſſe.

* Some take it for *Kali*.
* ὑφυμέγεις, *Dioſcor.* ſomewhat brackiſh.
* *Iva muſcata*, or *Arthritica*.

Chap. xxx.

*Of * Parthenium, and the medicinable vertues that it hath.*

AS for Parthenium, ſome name it Leucanthe, others Tamnaum; but our countreyman *Celſus* the Phyſician, calleth it Perdicium and Muralium. It groweth in the mounds and hedges about gardens: it bringeth forth a white floure, ſavouring like an * apple, and having a bitter taſt. The decoction of this hearbe, if a woman ſit over it and receive the fume into her bodie, is good to mollifie the hard tumors of the matrice and naturall parts; as alſo to diſ-
F cuſſe all inflammations. A powder made of this hearbe dried, and incorporat with honey and vinegre, [*i.* Oxymell] and ſo applied, purgeth choller aduſt, and melancholy. In which regard, it is good for the ſwimming and dizzineſſe of the braine, and thoſe that are given to breed the ſtone. Being uſed in manner of a liniment, it is good for the ſhingles and S. *Anthonies* fire: likewiſe for the kings evill if it be incorporat with old ſwines greaſe. The Magicians uſe it much for

* Some thinke it is Mother-wort, others Feverfew.
* Surely according to *Dioſcorides*, *Plinie* ſhould have written thus: *Flore per ambitum candido, in. tus melino; id eſt*, with a floure white round about, but within of a darke yellow like to honey: & this agreeth to Feverfew.

tertian agues: but they lay a great charge, that it ſhould in any wiſe be plucked up with the left hand, and the parties preciſely named for whoſe ſake they gather it: but in any caſe they who plucke it, muſt not looke behind them: which done, a leafe of the hearbe muſt be put under the tongue of the ſick Patient; and when it hath been held ſo a little while, it muſt anon be ſwallowed downe in a cyath of water. G

Chap. xxxi.

Of Nightſhade or Morell: of Alkakengi and Halicacabus, and their uſe in Phyſicke.

NOw concerning Nightſhade or Morell, which ſome name Strychnos, others have written by the name of Trychnos: would to God that the guirland-makers of Ægypt had not emploied and uſed in their chaplets the flours of two kinds of them, induced thereto by the reſemblance that they have to the Ivie flours: of which, the ſecond that hath red berries like cherries of a ſcarlet colour, conteined within certaine bladders, and thoſe berries full of grains or ſeeds, ſome name * Halicacabus, others Callion; but our countreymen here in Italy call it *Veſicaria, becauſe it is good for the ſtone in the bladder. Certes, this plant is more like a ſhrub or little tree full of braunches, than any hearbe: bearing great and large bladders, and thoſe faſhioned like a top, broad & flat at one end, and ſharpe pointed at another; encloſing within it a great berie, which ripeneth in the month November. The third kind of Strychnos or Solanum, hath leaves like to Baſill: but I muſt but lightly touch this hearbe, and not ſtand long about the deſcription either of it or the properties which it hath; ſince my purpoſe is to treat of holeſome remedies to ſave folke, and not of deadly poiſons to kill them: for certes, this hearbe is ſo dangerous, that a very little of the juice thereof is enough to trouble a mans braine, and put him beſides his right wits. And yet the Greeke writers have made good ſport with this hearbe, and reported pretie jeaſts of it: For (ſay they) whoſoever taketh a dram of the juice, ſhall have many ſtraunge fantaſies appearing evidently unto them in their dreams; if they be men, that they dally with faire women; if women, that they be wantons playing and toying with men, without all ſhame and modeſtie; and a thouſand ſuch vaine illuſions: but in caſe they take this doſe double, then they ſhall proove fooliſh indeed, broad waking, yea and goe beſides themſelves: let them take never ſo little more, it is mortall, and no remedie then but death. This is that poiſon, which the moſt harmeleſſe and beſt minded writers that ever wrote, called ſimply Dorycnion: for that ſouldiers going to battaile, uſed to annoint and envenome therewith the heads of their arrows, darts, and ſpeares, growing as it did ſo commonly in every place. But other writers, who had not ſought ſo far into the matter, nor adviſedly conſidered of it, gave it the name of Manicon. But thoſe that of a naughtie mind, cared not ſecretly to empoiſon the whole world, have hidden the daunger thereof, and tearme it by a name pretending no harme; ſome calling it Neuris, others Periſſon. But as I proteſted before, I thinke it not good to be too curious and buſie about the deſcription of this hearbe, notwithſtanding I might ſeeme to give a good caveat of it, by further particularizing thereof. Well, the very ſecond kind which they call Halicacabus, is bad enough, for it is more ſoporiferous than Opium, and ſooner caſteth a man into a dead ſleepe, that he ſhall never riſe againe. Some name it Morion, others Moly: and yet it hath not wanted thoſe that have thought it praiſe-worthie: for *Diocles* and *Euenor* have highly commended it: and *Timariſtus* verely hath not ſtucke to write verſes in the commendation of it: A wonderfull thing, that men ſhould ſo farre over-paſſe themſelves, and forget all honeſtie and plaine dealing: for they ſay (forſooth) that a collution made of this hearbe, confirmeth the teeth that be looſe in the head, if the mouth be waſhed therewith. And one onely fault they found in Halicacabus, (otherwiſe it might be praiſed without exception) that if the ſaid collution were long continued, it would trouble the brain, and bring the partie that uſed it, to foolerie and idleneſſe of head. But for mine owne part, my meaning is not to ſet downe any ſuch receits and remedies, which may bring a further daunger with them, than the very diſeaſe it ſelfe for which they are deviſed. The third kind alſo is commended for to be eaten as meat, although the garden Morell is preferred before it in pleaſantneſſe of taſt. Moreover, *Xenocrates* avoucheth, That there is no maladie incident to our bodie, but the ſaid Morell is good for it. Howbeit, I make not ſo great reckoning and account of all the helps that theſe and ſuch like hearbs may affourd, as I do make conſcience H I K L M

to

* *Alkakengi*, or Winter-chery. * or rather for that the ſaid berrie lyeth within a cod like a bladder.

A to deliver them in writing, especially seeing wee have so great store of safe and harmelesse medecines, which we may be sure can doe no hurt. Indeed, the root of Halicacabus they use to drinke and make no bones at it, who would be knowne for great prophets to foretell future things: and therefore it is alone for them, to be seene furious and raging, the better to colour their knaverie and lead the world by the nose in a superstitious conceit and persuasion of their divine gift of prophesie, and so to feed men still in their folly. But what is the remedie, when a man is thus overtaken? (for surely I am better content to deliver that) Even to give the partie thus intoxicat, a great quantitie of mead or honeyed water, and to cause him to drinke it off as hot as he can. Neither will I over-passe this one thing besides, That Halicacabus is so adverse unto the nature of the Aspis; that if the root thereof be held any thing neare unto the said serpent, it will bring
B asleepe and mortifie that venomous creature, which by a soporiferous power that it also hath of the owne, casteth a man into a deadly sleepe, and killeth him therewith. And therefore, to conclude, hereupon it commeth, that the same root bruised and applied with oile, is a soveraigne and present remedie to them who are stung by the foresaid Aspis.

Chap. xxxii.

Of *Corchorum*, and *Cnicus*.

THey of Alexandria in Ægypt use to eat ordinarily of Corchorum: This herb hath leaves enwrapped and enfolded one within another, after the manner of the Mulberrie. Good it
C is (as they say) for the midriffe and the parts about the heart: also to recover haire that is falne away by some infirmitie; and likewise for the red pimples or sauce-fleame in the face. I read moreover, that the skab or mange in kine and oxen, is most speedily cured thereby. And *Nicander* verely doth report, That it helpeth the stinging of serpents, if it bee used before it be in the floure. As touching Cnicus, otherwise called Atractylis (an hearb appropriat to the land of Ægypt) I would thinke it meet not to use many words about it, but that it yeeldeth a soveraigne remedie against the poison of venomous beasts; yea and the daungerous mushroms, if a man have eaten them. This is certain, and an approoved experiment, That whosoever are wounded by the sting of scorpions, shall never feele smart or paine, so long as they hold that herb in their hand.

D

Chap. xxxiii.

Of Persoluta.

THe chaplet-makers in Ægypt set great store by Persoluta also, which they sow and plant in their gardens, only for to make coronets and guirlands. Two kinds there be of it: the male and the female. It is said, that the one as well as the other, if it be put under man or woman in bed, they shall have no mind nor power at all to play at *Venus* game, and specially the man.

Chap. xxxiiii.

Of Measures and Weights.

E

ANd forasmuch as we shall have occasion oftentimes in setting downe Weights and Measures, to use Greeke vocables, I care not much even in this place, to interpret those words once for all. First and foremost, the Atticke Drachma [for all Physicians in manner goe by the poise of Athens] doth peise just a Romane silver denier: and the same weigheth also six Oboli: now one Obulus is as much in weight as ten Chalci. A Cyathus, of it selfe alone, commeth to ten drams in weight. When you shall read the measure of Acetabulum, take it for the fourth part of Hemina, that is to say, fifteen drams. To conclude, Mna, which we in Latine call Mina, amounteth just to an hundred drams Atticke.

F

THE XXII. BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

The Proëme.

A Man would thinke, who did but read the former booke, that dame Nature and the Earth both, had done their parts and shewed their wonderfull perfection sufficiently: if he considered withall the admirable vertues of so many hearbs which they have brought forth and bestowed upon mankind, as well for pleasure as profit. But see what a deale of riches more is yet behind; and how the same as it is harder to be found, so it is in effect more miraculous! As for those simples whereof wee have alreadie written, for the most part they are such, as have served our turne at the bourd: or else in regard of their beautie, odour, and smell, have induced us to search farther into them, and to make triall of their manifold vertues and operations in Physicke. But yet there remaine behind many more, and those so powerfull, that they prove evidently unto us, how Nature hath produced nothing in vaine and without some cause: although the same be occult and hidden oftentimes from us, and reserved onely in her closet and secret counsell.

Chap. I.

Of certaine nations which use hearbes for procuring and preserving of beautie.

GErtes, I doe find and observe, that there bee forraine nations, who time out of mind, have ben ever accustomed to annoint their bodies with the juice of certaine hearbs, for to embellish and beautifie them, as they thought. And verely in some of these *barbarous countries, yee shall have the women to paint their faces, some with this hearbe, and others with that: yea, and among the Dakes and Sarmatians, in Transylvania, Walachia, Tartaria, and those parts, the men also marke their bodies with certaine characters. But to goe no farther than into Gaule, there groweth an hearbe there like unto Plantaine, and they call it Glastum [or Woad] with the juice whereof the women of Brittaine, as well the maried wives, as young maidens their daughters, annoint and die their bodies all over: resembling by that tincture the colour of Moores and Æthyopians: in which manner they use at some solemne feasts and sacrifices, to goe all naked.

*All such as be neither within Greece nor Italie.

Chap. II.

That clothes be died with certaine hearbs.

ANd now of late daies we know there hath been taken up a straunge and wonderfull manner of dying and colouring clothes. For (to say nothing of the graine brought out of Galatia, Affricke, and Portugall, whereof is made the royall Skarlet, reserved for princes only and great captaines to weare in their rich mantles of estate and coats of armes:) behold, the French inhabiting beyond the Alps, have invented the meanes to counterfeit the purple of Tyrus, the Skar-

A Skarlet alſo and Violet in graine; yea, and to ſet all other colours that can bee deviſed, with the
juice onely of certaine hearbs. Theſe men are wiſer (beleeve mee) than their neighbours of other
nations before them: they hazard not themſelves to ſound and ſearch into the bottome of the
deepe ſea for Burrets, Purples, and ſuch ſhell-fiſhes. Theſe adventure not their lives in ſtraunge
coaſts and blind baies, where never ſhip hath rid at anker, offering their bodies as a prey to feed
1 the monſtrous Whales of the ſea, while they ſeeke to beguile them of their food in fiſhing for
the ſaid Burrets: and all to find that, whereby as well unchaſt dames of light behaviour might ſet
out themſelves and ſeeme more proper, to allure and content adulterous ruffians: as alſo thoſe
2 gallants againe, ſquaring and ruffling thus in their colours, might court faire ladies and wedded
wives; yea, and with more eaſe entrap and compaſſe them to yeeld unto their pleaſure. But theſe
B men ſtand ſafe upon drie land, and gather thoſe hearbs for to die ſuch colours, as an honeſt min-
2 ded perſon hath no cauſe to blame, nor the world reaſon to crie out upon. Nay, our brave mini-
ons and roiotous wantons, it might beſeeme alſo to bee furniſhed therewith; if not altogether ſo
glorious to the eye, yet certainely with leſſe offence and harme. But no part it is of my deſſeigne
and intent to diſcourſe upon theſe matters at this preſent: neither will I ſtand upon the thrift and
good husbandrie that may be ſeene in ſuch a thing as this, leaſt I might ſeeme to colour any va-
nitie with a ſhew of commoditie and frugalitie: and to limit exceſſe and ſuperfluitie within the
tearms of profit and cheapeneſſe, which indeed will not bee gaged and brought within any com-
paſſe. Beſides, I ſhall have occaſion hereafter in ſome other place to make mention both of dying
ſtones, and alſo of painting walls with hearbs. As for the art and myſterie of Diers, if ever it had
C been counted any of the liberall Sciences, beſeeming a gentleman either to profeſſe or practiſe,
I aſſure you I would not have overpaſſed it in ſilence. And yet I promiſe you, this feat groweth in-
to credit every day more than other: and the *havens abroad where thoſe fiſhes be taken which
furniſh them with colours, are mightily frequented and in greater name and requeſt than ever
they were. In which regard, I cannot chuſe but ſhew and declare what account wee ought to
make of theſe dumbe tinctures in that behalfe; I meane ſuch hearbs and ſimples, whereof
there is but baſe reckoning or none at all made: for thoſe great princes which were the firſt foun-
ders and eſtabliſhers of the Romane Empire, did mightie things therewith, and emploied theſe
hearbs in the higheſt matters of ſtate. For in the affairs of greateſt importance, namely, either
in publicke ſacrifice for the averting of ſome heavie judgement of the gods threatened: or in ex-
D 2 piation of any greevous ſinne and offence committed (whether they performed divine ſervice to
their gods, or diſpatched honourable embaſſages to other States) they uſed their Sagmina and
Verbenæ: by which two words verely was meant one and the ſame thing, even ſome plaine and
common graſſe plucked up with ceremoniall devotion, turfe and all, from their caſtle hill or ci-
tadell of Rome. And this at all times was obſerved religiouſly, that they never ſent their heraulds
to the enemies of the people of Rome for to clarigat, that is to ſay, to ſummon them with a lowd
voice for to make reſtitution of that which they detained of theirs, without a turfe and tuft of the
ſaid graſſe: and evermore there accompanied theſe heraulds in their traine, one ſpeciall officer
who had the charge to carie and tender that hearbe, who thereupon was called Verbenarius.

* *Portibus augeatur auctoritas.*

E

Chap. iii.

Of graſſe Chaplets.

NO Coronets verely were there ever at Rome better eſteemed, either to teſtifie the trium-
phant majeſtie of that victorious citie (the ſoveraigne ladie of the whole world) or to give
teſtimonie of honour and reward for ſome notable ſervice performed for the Common-
weale, than thoſe which were made ſimply of greene graſſe. The crownes of beaten gold, and en-
2 riched with pearle; the Vallare and Murall Chaplets beſtowed upon brave knights and valiant
ſouldiors, who either entred the fortified campe of the enemie over trench & rampier, or mount-
ed the wals in the aſſault of a citie, came nothing neare to this: the Navall garlands given to ad-
F mirals and generals at ſea, for obtaining victorie in that kind of ſervice: the Civick coronets alſo
preſented unto ſuch as had reſcued a Romane citizen, and ſaved his life, came behind theſe: and
in one word, the Chaplet Triumphall, which they ware who entred with triumph into Rome, was
nothing comparable to theſe. And yet all theſe Guirlands abovenamed have notable preroga-
tives, and differ one from another in many reſpects. In a word, thoſe Coronets and Chaplets of
honour

honour, all ſave theſe made of graſſe, were given many times by ſome privat and particular perſons, or by the captains and generals themſelves unto their ſouldiors: yea, and otherwhiles from one Generall to another, when they were joined together in equall commiſſion, in teſtimonie of vertue and valour. G

Chap. 1111.

The ſingularitie and rare examples of ſuch Chaplets made of graſſe.

NOw, whereas other Garlands of honour and Coronets of triumph, were alwaies either ordained by a decree from the Senat in time of peace, and after the troubles of warre overblowne; or graunted by an Act of the people, being quiet and in repoſe, when daungers were paſt: this Chaplet of graſſe aforeſaid, it was never any mans hap to have, but in ſome extremitie and deſperat caſe of the whole ſtate: nor at any time adjudged to a man, but by the whole armie, confeſſing with one voice & generall conſent, That by him alone they were all ſaved from the edge of the ſword, or famine. As for the reſt, the captains and generals uſed to give them: this onely was preſented by the ſouldiours to their cheefe leader. The ſame was called alſo an Obſidionall coronet or ſeige-Garland, namely, when ſome captaine had forced the enemies to raiſe the ſiege and diſlodge, and thereby ſaved either a whole towne or campe from utter ſhame and finall deſtruction. And certes, if there was ſo great account made of a Civicke guirland, for reſcuing the life of one onely citizen of Rome (and ſuch an one perchance as was of all others the meaneſt) that whoſe fortune it was to obtaine it, he was honoured ever after with many priviledges and immunities, and counted ſacred: how highly then is he to be eſteemed, who by his owne valour and proeſſe hath ſaved many thouſands, and a whole armie of ſuch citizens? This Chaplet then, ſo ſingular and excellent, was made of the greene graſſe, or hearbs taken and gathered from the very place where a man had ſaved and delivered the beſieged. For in truth, the greateſt ſigne of victorie in old time, and of yeelding to the mercie of the enemie, was this, If the vanquiſhed did take up graſſe, and tender it unto the conqueror: for this ſerved as a confeſſion and proteſtation, That they rendered up all their interreſt which they might challenge in the earth (the mother that bred and fed them) yea, and the very right of ſepulture in her: which cuſtome I underſtand, the Germanes doe retaine and obſerve, even at this day. H I

Made of Oke leaves and branches.

Chap. V. K

What captaines they were, who alone received the honor of a Civicke Chaplet.

Lvcius Siccius ſurnamed *Dentatus*, was crowned but once with this Coronet of graſſe: notwithſtanding it was his good fortune to deſerve and obtaine foureteene Civicke guirlands: to fight with his enemie in a hundred and twentie battels, and ever to return out of the field with victorie: whereby we may ſee how rare a thing it was in times paſt, to ſee an armie thus ſaved through the valour of their captaine, for to recogniſe by this publicke preſent their onely ſavior. And ſome leaders and captaines have been honoured this way oftener than ſo. As for example, *P. Decius Mus* received two ſuch Coronets: For being a colonell and knight marſhall of the campe, hee behaved himſelfe ſo valiantly, that one was given him by the regiment or armie which himſelfe led; and another by thoſe who had beene beſieged within their fort. And how highly he eſteemed of this honourable reward, hee teſtified by his religious devotion and the ſacrifices which hee offered thereupon to the gods: for no ſooner had hee received theſe Coronets; but whereas the armie aforeſaid beſieged, and by him delivered, had beſtowed upon him over and above for his brave ſervice, one white Oxe, and an hundred others, which were brended, he ſacrificed them all unto god *Mars*. This was that *P. Decius*, who afterwards being conſull together with that ſurlie and imperious colleague of his [*T. Manlius*] ſurnamed *Imperioſus*, devowed and yeelded himſelfe to all the divels of hell for the ſafetie of his armie, and the obtaining of victorie. Moreover, that noble and renowmed *Fabius*, who ſet upright again the declining ſtate of the Roman Commonweale, with lying off and not fighting at all with *Annibal*, was crowned therfore with ſuch a chaplet, by authoritie from the Senat and people of Rome: ſuch an honor in my judgement as no man in this world can reach and attain to higher. True it is, that beforetime he had performed right good ſervice, & namely, when being Dictator, he reſcued & ſaved L M

his

A his high*Conſtable or grand maiſter of the Cavallerie, together with his whole armie: and yet was he not thus highly rewarded then, with this Coronet of greene graſſe. For in teſtimonie of thankfulneſſe, this gratuitie they whom hee had ſaved, thought at that time better, namely, to crowne him (as it were) with a new name and title to his former ſtile, calling him with one voice, Father. But the honor abovenamed was given unto him (as I ſaid) by the generall conſent as well of Senat as people, at what time as hee chaſed *Annibal* out of Italie. And in truth, never man yet was in this wiſe knowne to bee crowned by the hands (if I may ſo ſay) of the whole Empire, but himſelfe alone. This peculiar honour obtained he above all others, that this Chaplet alone was offered and preſented unto him by all the ſtates of Italie. *M. Minutius.

B

Chap. vi.

What he was, who alone of all Centurions received this Chaplet of graſſe.

BEſides thoſe abovenamed, I find that *M. Calphurnius Flamma*, a Colonell of a regiment of ſouldiours in Sicilie, was in this manner rewarded and honored with a graſſe Guirland. But never was there knowne to this day any one to have been crowned in this wiſe, of ſo baſe degree and condition as *C. Perreius Atinas*, in that warre wherein the Cimbrians were defeated, who indeed was no better than a ſimple Centurion. This Centurion having by his place the conduct of the formoſt band of a regiment of ſouldiors under Colonell *Catulus*; ſeeing upon a time certaine companies excluded out of their owne camp, by reaſon that the enemies had put themſelves betweene them and home, and there encamped; perceiving his captaine or Colonell *Catulus* aforeſaid, timorous and doubtfull to breake through the enemies campe; put on a reſolute mind, ſlew his owne Colonell, exhorted and encouraged the companies to quit themſelves like men, and follow his enſigne: and ſo he defeated his enemies, and delivered his own legion. I read moreover in the Chronicles, That the ſame Centurion over and above the foreſaid brave ornament of a graſſe Coronet, had this honor done unto him, that being clad in a long robe of purple embrodered, and aſſiſted with both the Conſuls for the time being, *Marius* and *Catulus*, hee was allowed to ſacrifice unto the gods with a noiſe of fifes and haut-boies ſounding hard by the hearth or alter fire. Furthermore, *Sylla* the Dictatour hath left in writing, That when he was lieutenant Generall under the Conſuls, and had the leading of the armie in the expedition or journey againſt the Marſians, the whole armie preſented unto him a Chaplet of graſſe, before the citie of Nola. And in very truth he cauſed this to be pourtraied in a painted table within a houſe of pleaſure which hee had in Thuſculum, the ſame that afterwards *M. Tullius Cicero* was maiſter of. Which if it were true, the more ſhame deſerved hee in my conceit: and I hold and pronounce him ſo much the more accurſed and deteſtable, for taking this crowne from his owne head, and looſing ſuch a brave badge of honor, in proſcribing, overthrowing, baniſhing, and murdering afterwards, a greater number of citizens (without all compariſon) than thoſe ſoldiors came to, whoſe lives he ſaved, at what time as hee tooke that garland firſt upon his head. Let him vaunt as much as hee will of the ſaid Coronet, as alſo of the prowd and vaineglorious title of Fœlix, *i.* Happie, (which addition or ſurname he tooke upon him and cauſed to bee put into his ſtile) yet, when as through his tyrannie he held beſieged thoſe Romane citizens whom he had proſcribed and confined into all parts of the world, ſurely he forewent all and yeelded that crowne unto *Sertorius*.

C D E F

Moreover, *M. Varro* doth report, That *Scipio* ſurnamed *Æmilianus*, was honoured with an Obſidionall Coronet in Affricke (the ſame yeare when as *Manlius* was Conſull) for ſaving three cohorts beſieged: as alſo three companies beſides which hee led forth to deliver the other, and by whoſe meanes he forced the enemie to breake up his ſiege. This is to bee ſeene and read in a Table, which *Auguſtus Cæſar* late Emperour of famous memorie, cauſed to bee hanged up at the baſe or foot of the ſaid *Scipioes* ſtatue erected in the Forum or publick hall which himſelfe built. As for *Auguſtus* himſelfe, the Senat crowned him with an Obſidionall Chaplet, upon the thirteenth day of September, that yeare when he was Conſull with *M. Cicero*, the ſonne of that great *Cicero* the Oratour. Whereby we may ſee, that a Civicke Chaplet was not thought ſufficient nor any waies comparable to this Coronet. And ſetting aſide theſe abovenamed, I do not find in hyſtories, of any one who was crowned with a greene chaplet of graſſe. Now, this you muſt note withall, That there was not one certaine hearbe ſet out and appointed for theſe honorable Guirlands: but look what kind of herbage grew then in the place beſieged and where the danger was,

that

that very ſame they tooke, were they never ſo baſe weeds and of no reckoning: for as contemptible otherwiſe as they were, yet being once emploied to this uſe, they ennobled and adorned the perſon himſelfe who ware them in a Chaplet. And certes, the leſſe marvell I have if theſe things bee unknowne to us nowadaies, ſeeing as I doe, how little or no account is made even of thoſe things which make to the maintenance and preſervation of our health; to the cure of all dolourous greefes and maladies of the bodie; yea, and to the prevention of death it ſelfe. But what man is there well given and honeſtly minded, who can contain and hold his peace, having ſo juſt cauſe to reprove and rebuke the manner of the world in theſe our daies? Firſt and formoſt, our life was never ſo coſtly as now it is, in regard of the dainties, delights and ſuperfluities, which muſt bee maintained, if we will live to the faſhion of the time: and for to enjoy theſe pleaſures onely, wee hold our lives more ſweet and precious. Never were men more deſirous of long life, and never leſſe carefull to entertaine the means of long life. The governement of our health wee commit to the charge of others, and ſtraungers wee credit with our owne bodies, and yet ſlacke ynough and negligent are they, to ordaine according to our truſt & confidence, that which indeed ſhould doe us good. Thus the Phyſicians are provided well for: they thrive alone and goe away with the gaines by this meanes. Oh good God, to ſee the follie and vanitie of man! Nature having put ſo many good things into our owne hands as ſhe hath, and willing that wee ſhould enjoy them for our health and pleaſure: yet we (to our great ſhame and rebuke be it ſpoken) are ſo unhappie, as to commit our ſelves to other mens tuition, and live under their warrantize and aſſurance. Full well I know, that I for my part alſo, ſhall have but ſmall thankes of many a one for all my paines taken in writing this hiſtorie of the world and Natures workes: nay, I am aſſured that I make my ſelfe a laughing ſtocke, and am condemned of them for ſpending and looſing my time in ſuch a frivolous peece of worke as this is. Howbeit, this is yet my comfort and no ſmall contentment I take herein, that my labors and travels (exceſſive and infinit though they be) cannot be deſpiſed, but the contempt will redound likewiſe to dame Nature her ſelfe. And yet ſhee againe, as a kind and tender nource over mankind, hath not failed (as I will declare hereafter) for our good, to endue the very weeds which wee tread underfoot with medicinable vertues, yea, and hath beſtowed upon thoſe which otherwiſe we hate and dare not approch, but with carefull heed (for the ſhrewd prickes and thornes which they carie about them) ſingular properties to cure diſeaſes. For over and beſides thoſe whereof I made mention in the booke going next before this, there bee other hearbs of that pricking kind, which are ſo wonderfull in their operation and effects, that I can never admire ſufficiently and comprehend her providence appearing in them. Furniſhed ſhee had the earth, with ſmooth & prickleſſe plants inough, in the nature of meats, for to content our tooth & ſatisfie our appetite: ſhe had engraven and lively painted in flowers, notable properties in phyſicke for to recover and maintaine our health; and by the ſingular beautie which ſhe gave unto them, to allure the heart and eye of man to looke toward them, ſaying (as it were) Come and gather us: wherein ſhe had made a good medley of profit and pleaſure together. And when ſhee had thus done, ſhee ſtaied not there, but deviſed to bring other hearbs, hideous to the eye, and untractable in hand: As if in the forming of them in that faſhion, we might heare her to give a reaſon, Why ſhe ſo did? ſaying after a ſort unto us in an audible voice, That ſhe made them with prickes and thornes, becauſe ſhe would not have the foure-footed beaſts (as hungrie and greedie after meat as they be) to eat them downe, That the ſhrewd hands of ſome ungracious folke, who can let nothing ſtand, might not be ever and anone plucking and twitching at them for wantonneſſe, That people ſhould not go careleſſely trampling upon them with their feet: finally, For fear that birds pecking and ſetling aloft upon their tender braunches would ſlive them down or knap them aſunder. Therefore (I ſay) with theſe prickles, ſerving in ſtead of weapons as well defenſive as offenſive, ſhe hath both protected and alſo armed them: and all to keepe them ſafe and ſure, for the health of man, and to doe him ſervice. Lo, how even that which we hate and ſeeme to abhor in theſe hearbs, was deviſed for our comfort and benefit, if wee had the grace to ſee it.

Chap. vii.

The medicinable vertues of other flowers and hearbs ſerving for Chaplets. Alſo of Erynge.

*Sea-Holly. AMong thoſe hearbes which beare pricke, *Erynge or Eryngion, is ſingular: for a ſoveraigne hearbe it is againſt ſerpents, and all poyſons whatſoever, as if it grew for nothing els. But to come

A come to particulars, for ſtings and bitings of venomous creatures, the root thereof to the quantitie of one dram, is taken in wine. And in caſe (as moſt times it falleth out) that a fever follow upon ſuch accidents, then the patient muſt drinke it with water. A ſpeciall and effectuall propertie it hath againſt certaine land-ſnakes called Cherſydri, and venomous todes, if it be reduced into a liniment, and ſo applied to the ſore. But *Heraclides* the Phyſician is of opinion, That if the ſaid root bee boiled in the broth of a Gooſe, it is of more efficacie than all other, againſt the Toxica and Aconita. But whereas others doe boile it in ſheere water againſt the poyſons Toxica, *Apollodorus* would have a frog ſodden withall. The hearbe it ſelfe is of ſubſtance hard, branching much, full of leaves, and thoſe beſet with prickes. A ſtem or ſtalke it carieth, parted by knots and joints, a cubit high and ſomewhat more. Moreover, as there is white Erynge, ſo you ſhall have of it black:
B The root is odoriferous. Eryngion verely commeth up ordinarily of ſeeds and by ſetting. But it groweth alſo in rough and ſtonie places of the owne accord. And that which we ſee along the ſea ſhore, is harder and blacker than the reſt, leaved alſo like common Ach or Perſeley.

Chap. viii.

Of the hearbe or thiſtle commonly called Centum-capita, i. the hundred heads.

AS for the white Erynge, our countreymen call it in Latine Centum-capita. But they bee all of one and the ſame operation and effect. And the Greekes verely make their ordinarie meat as well of their ſtalkes as roots, both waies, to wit, either raw or boiled, as they liſt.
C Certes, there be wonders reported of this hearbe, namely, That the root of this white Eryngion, (which is very geaſon and hard to be found) reſembleth one while the male ſex, and otherwhiles the female, of our kind. But if it chaunce that a man doe meet with that Eryngion which is like unto that member which diſtinguiſheth him from a woman, he ſhall be very amiable and beloved of women. Which was the reaſon (men ſay) that ladie *Sappho* was ſo enamoured upon the yong knight *Phao* of Lesbos. And verely, as touching this hearbe, not onely the Magicians, but the diſciples alſo and followers of *Pythagoras*, tell us many vaine and fooliſh tales.

But to come indeed to the uſe of it in Phyſicke. Over and beſides thoſe vertues and properties which I have related alreadie, good it is to reſolve ventoſities: it eaſeth the gripes and wrings in the bellie: it cureth the diſeaſes and debilitie of the heart: it helpeth the ſtomack and liver. For
D the midriffe and precordiall parts, it is very holeſome taken in honied water: and for the ſpleen, in vinegre and water together. Alſo drunk in mead or honied water aforeſaid, it is ſingular for the kidneies, the ſtrangurie, the crampe or cricke that pulleth the head of a bodie backward: for other ſpaſmes alſo and convulſions: for the loines, the dropſie, and the falling ſickneſſe. Soveraigne it is moreover for womens monthly fleurs, whether they doe ſtay upon them, or contrariwiſe run exceſſively from them: and in one word, it cureth all the accidents and infirmities of the matrice. Being applied as a liniment with honey, it draweth forth any offenſive thing ſticking within the bodie. And if it be laid too with ſalt, lard, or hogs greaſe, and ſo incorporat into a cerot, it healeth the kings evill, the ſwelling kernils behind the eares, and the flat biles and botches. It rejoineth alſo the fleſh that is gone from the bone: and finally, ſoudereth and knitteth broken bones or fra-
E ctures. Taken before a man ſit downe to eat or drinke, it preſerveth him from ſurfet or drunkenneſſe: and bindeth the bellie. Some of our Latine writers would have it to be gathered a little before the Summer Solſtice, ſaying moreover, That if it bee applied with raine water, it helpeth all the infirmities incident to the nape of the necke: and by their report, if it be bound to the eyes, it cureth the pin and web.

Chap. ix.

Of Acanus and Liquirice.

F SOme there be who take Acanus for a kind of Eryngium. And they deſcribe it to bee a low hearbe, and yet growing broad and large, full of prickes and thornes, and thoſe likewiſe bigger than ordinarie: Being applied outwardly, wonderfull effectuall it is (by their ſaying) to ſtanch bloud. Others there are, who have thought Erynge and Liquirice to bee all one, but they are deceived. Howbeit, for ſome reſemblance that is betweene them, I thinke it not amiſſe to ſet downe the deſcription thereof immediately after theſe Erynges. Doubtleſſe, this Liquirice alſo is

to

to be counted among these thornie plants, for that the leaves stand*pricking up sharp-pointed; the same are fattie, and in handling gummie and glewie. It putteth foorth many braunches, and those two cubits high: it carieth a flower in manner of the Hyacinth, and beareth fruit resembling bals of the bignesse of those which hang upon the Plane tree. The excellent Liquirice is that which groweth in Cilicia: the next for goodnesse commeth from Pontus: and hath a sweet root which onely is used in Physicke. Taken up this is and gathered at the setting or occultation of the Brood-hen star, and is found running along in the ground in manner of the Vine root: in colour like to the Box tree. That which is duskish and somewhat blacke, is thought to be the better: like as the lithe and pliable root which will wind and turn every way, is preferred before that which is brittle and easie to breake. Great use there is of it in those medicines which be*held under the tongue, so to resolve and melt leasurely, namely, after it hath been sodden to the thirds: yea, and otherwhiles boiled to the height and consistence of hony. Sometimes they use to bruse it; and in that manner they doe lay it upon wounds, where it doth much good: as also if it be applied to all the diseases and accidents befalling to the throat and jawes. The juice of Liquirice reduced to a thicke consistence, if it be put under the tongue, is singular for to cleare the voice. In like manner it is supposed very wholesome for the breast and liver. And therewith (as I have said before) both thirst and hunger may be slaked and allaied. Which is the cause that some have called it Adipson: and in that regard ministred it to those persons who be fallen into a dropsie, for to prevent and take away their thirstinesse. Therefore it is thought to bee a proper remedie for the diseases of the mouth, if it bee either chewed, or otherwise cast and strewed upon the ulcers therein: and so it cureth the excrescences also and exulcerations about the roots of the nailes. Moreover, it healeth the excoriation and soreneſſe of the bladder, assuageth the paine of the kidneies, cureth the swelling and aking piles, the fissures also in the seat, and finally the ulcers of the privie parts. Some Physicians have prescribed to drinke in a Quartan ague, the weight of two drams of Liquirice, & one of Pepper, in a draught of water to the quantitie of a small pint or hemina. This root being chewed, staieth bleeding in a wound. To conclude, some have written that it expelleth the stone and gravell.

*Echinatis. It seemeth that Plinie never saw Liquirice, but read ἐχίνοις for ὀχνοις, i. Lentisci: and indeed the leaves are like to those of the Lentiske tree.

*In linguæ subditis. Such as be our Ecligmata or Lochs.

G H I

Chap. X.

Of the Caltrop thistle Tribulus. The sundrie kinds therof, and the medicines which they yeeld.

K

Some of these Thistles come up in gardens: others grow in and about rivers onely. The juice which is drawne from these, is thought to bee good for the eyes: for this hearbe being as it is of a cooling nature, is a singular remedie for inflammations and gathering of impostumes. A good medicine for all ulcers, but those especially which break out of themselves in the mouth: it cureth likewise those of the amygdales or almonds of either side of the throat. If it be taken in drink, it fretteth & breaketh the stone. The Thracians dwelling upon the river Strymon, feed their horses fat with the leaves of this hearbe: and live themselves with the kernels or fruit thereof, making a kind of sweet bread therewith, which also bindeth the bellie. The root if it be gathered by the chast and pure hands of a virgin discusseth and dissolveth the kings evill. The seed if it be tied to the swelling vaines, assuageth their pain. Lastly, being beaten into pouder and cast into water, it killeth the fleas in any place where that water is throwne or sprinckled.

L

Chap. XI.

Of Stœbe and the medicines which it affourdeth.

A kind of Matfellon or Knapweed.

Stœbe, *which some call Phleon, boiled in wine, is a soveraigne remedie for eares that run with atter: likewise for bloudshotten eyes, especially upon a stripe or stroke given. Being ministred by way of clyster, it is good for the bloudie flix and the exulceration of the guts.

Chap. XII.

M

Of Hippophyes and Hippope, with their medicinable vertues.

Hippophyes is an hearbe growing in gravellie and sandie places, and namely along the sea side, armed with white prickes or thornes: it beareth berries by clusters after the manner

of

A of Ivie, and those be partly white and partly red. The root is full of a certain juice, which is good either to be condite and confected alone, or els to be reduced into Troches with Ervile meale: this being taken to the weight of one Obolus, purgeth cholerique humours; and a most holesome medicine it is, especially with honied wine. *Ervi farina.*

Another hearb there is, named Hippope, which neither riseth up in stalke, nor beareth floure, but hath leaves onely, and those small. The juice also of this hearbe, is wonderfull good for those who are in a dropsie: where it is to be noted, That these two hearbs should have some especiall properties respective to the nature of horses, considering both their names are derived from nothing else: for in very truth, some things there be which Nature hath brought foorth as appropriat remedies for certain particular beasts, whereby we may see her divine power, and how
B well appointed she is and provided for to bring forth medicines of all sorts; so as the deapth of her providence cannot be sounded, neither are we able sufficiently to admire her wit and discretion, in disposing and digesting her remedies according to sundry kinds of creatures, according to divers causes, and different seasons: insomuch as the remedies serving one, are not fitted for another, neither are they of the same effect and operation at all times: nay, there is not a day almost in the yeere throughout, but it yeeldeth a remedie respective unto it.

Chap. XIII.

Of the Nettle, and the medicinable vertues thereof.

C IS there any thing more hated and odious than the Nettle? and yet to say nothing of the oile made of it in Ægypt (according as we have shewed heretofore) endued shee is and furnished with many good properties serving for Physicke. For first, as touching Nettle seed, *Nicander* affirmeth, That it is a very countrepoison against Hemlocke, venomous Mushroms, and Quicksilver. *Apollodorus* addeth moreover and saith, That being boiled in the broth of a Tortoise, it is singular good for the poison of Salamanders: also that it is contrarie to the pernicious nature of Henbane; and the deadly poison of serpents, and namely of scorpions. Even that very bitternesse and mordacitie which the Nettle hath, causeth the Vvula in the mouth which is falne, to knit up againe: the matrice also which is over-loose and beareth downe, to arise into the place; yea and
D the tuill or fundement in children hanging foorth of the bodie, to returne and abide where it ought to be, onely with touching these parts therewith. If the legs be rubbed, and the forehead especially with Nettles, it is a good means to awake them out of their drowsie and dead sleepe, who are surprised with a lethargie. The same being applied with salt, is passing good for the biting of dogs. If it be bruised and put up into the nosthrils, it stancheth bleeding at the nose; but principally the root of it. If it be tempered with salt, it mundifieth cancerous and foule filthie ulcers: likewise it helpeth dislocations and bones out of joint: it discussseth or ripeneth botches in the emunctories, and the swelling kernels behind the ears; and healeth up the places where the fleshie parts be gone from the bones. Nettle seed taken in wine-cuit (as a drinke) openeth the matrice when it is readie to strangle or suffocat a woman: and beeing applied with wine, it
E staieth bleeding at the nose. If one drinke Nettle seed after supper, with honey and water, to the quantitie of two oboles weight, it openeth the passages and maketh way for to vomit with greater facilitie: but the weight of one obolus taken in wine, refresheth those who have a lassitude or wearinesse upon them. The same being parched against the fire and drunke to the measure of one Acetabulum, is singular for the imperfections of the matrice: and in cuit, it withstandeth the ventosities and inflations of the stomacke. Given inwardly with hony in the forme of a loch, it doth them good who labour for wind, and cannot take their breath but sitting upright: and after the same manner it cutteth fleame and cleanseth the breast of it. Being applied in a bag, togither with lineseed, it taketh away the stitch and paine in the sides: but some put hyssope thereto, and a little pepper. A liniment made therewith, cureth the splene. Beeing parched or rosted
F and so eaten with meat, it keepeth the bodie soluble. And *Hippocrates* affirmeth, that the said seed is very good to be taken in drinke, for to cleanse the matrice in women: and beeing so parched and given to the quantitie of one Acetabulum in sweet wine cuit, it allaieth the griefe and paine of the said part, in case withall there be a cataplasme applied to the region thereof, togither with the juice of Mallows. If it be taken in Hydromel, *i.* honyed water, togither with salt, it expelleth

(by his saying) the worms in the belly. Applied in a liniment to the bare and naked places of the head, it causeth the haire to grow againe, and bringeth all to the former beautie. Many doe use to make a cataplasme of Nettle-seed and old oile; or els stampe the leaves together with Beares grease, for the paine of the gout: and verely for that purpose, as also for the splene, the root pouned with vinegre, is no lesse effectuall. Beeing boiled in wine, it discusseth and driveth downe risings in the groine, and such like emunctories, so it be laid too with old hogs grease salted. But the same root drie, is a verie depilatorie, and fetcheth haire off. *Rhonias* (the naturall philosopher and physician) in a severall treatise which he made in the praise of Nettles, professeth, That he knoweth not the like remedie to the Nettle, boiled first and then condite, for the windpipe, the cough, the distillation and flux of the belly, the stomacke, the biles and botches in the emunctories, the swelling and enflamed kernels behind the eares, and kibed heels. The same with oile, procureth sweat: and sodden with muscles, and such like shell-fishes, it mooveth to the stoole: with ptisane or barley broth, it purgeth the breast, and sendeth downe womens tearms: applied with salt, it restraineth ulcers that be corrosive and apt to run and spread farther. The juice also of the Nettle, serveth to many uses; for being pressed forth and laid as a liniment to the forehead in a frontall, it stancheth bleeding at the nose. The same taken in drinke, provoketh urine, and breaketh the stone: but if one gargle with it, it staieth the Vvula from falling. As for the seed, it ought to be gathered in harvest time: and that which is brought from Alexandria, is esteemed best. For all the particular diseases above rehearsed, the kinder and gentler Nettles also, even those that be young and tender, are knowne to be of good operation; but principally that wild kind beforesaid: and this propertie moreover it hath, To rid away the leprosie out of the face, if it be taken in wine. Finally, if a foure-footed beast will not abide to be covered or served with the male of that kind, an ordinarie practise it is, to rub the mature or shap with a Nettle, for that will make her stand to the fellow.

Chap. xiiii.

Of Lamium, and the medicinable vertues thereof.

As touching that dead Nettle, which among the other kinds wee named before Lamium, i. Archangell, it is the mildest of all others and most tractable, for the leaves bite not nor sting at all. The same, if it be applied with some corns of salt, to contusions and bruises, to deepe burns, the Kings evill, swellings, gouts, and wounds, cureth them all. The white that it hath in the mids of the leafe, is singular for S. *Anthonies* fire, the shingles, and such like. Some there be of our Latine writers, who treating of Nettles, have couched them in their ranks respectively to the time, saying, That the root of a Nettle which commeth in the Autumne, cureth the tertian ague; but it must be tied fast to the Patient: and these ceremonies are to be observed also in the taking it foorth of the ground, That the partie be named for whome it is gathered; the fever also, Of what type or kind it is; yea and who be the parents of the sicke person; and then hee or shee shall be sure to be delivered of that disease. The said root, with the same circumstances, is of the like operation to drive away the quartan ague also. The selfesame authors doe affirme moreover, That the root of a Nettle beeing applied with salt, draweth foorth all thorns and shivers that sticke within the flesh. Also, that a cataplasme of the leaves and hogs grease incorporat togither, doth resolve the scrophules or swelling kernels called the Kings evill: or if they are come to suppuration, eateth and worketh them forth, and doth incarnat and fill up the place againe.

Chap. xv.

Of the hearb Scorpius: the sundrie kinds thereof, and the medicinable properties.

* Scorpiacides.

There is an hearbe called * Scorpius, which tooke that name of the resemblance that the head hath to a scorpions taile. Few leaves it beareth; but (according to the name) it is good against the sting of scorpions. Another hearbe there is of the same appellation, and of like effect to the other; but it sheweth no leaves at all: the stalke is smooth, and resembleth garden Sperage: in the top or head whereof, there is a pricke to be seene like a sting, which gave occasion of the foresaid name.

Chap.

A

Chap. xvi.

Of Leucacantha, and the vertues thereof good in Phyſicke.

THe Greeks, ſome call this Thiſtle, Leucacantha, or the white Thiſtle; others, Phyllon: ſome Iſchias, others Polygonaton: but be the name what it will, it hath a root reſembling that of * Cyperus, which if it be chewed in the mouth, allaieth the tooth-ach. *Hiceſius* ſaith likewiſe, That if either the ſeed or the juice of the root thereof, bee taken in drinke to the weight of eight drams, it aſſuageth the paine of the ſides and loins. The ſame alſo cureth ruptures, convulſions, and cramps.

* or *Cyperus.*

B

Chap. xvii.

Of Helxine or Perdicium, called alſo Parthenium or Sideritis, and the vertues medicinable.

AS for Helxine, ſome call it Perdicium, becauſe Pertridges delight moſt to feed therupon: others name it Sideritis; and many give it the name of Parthenium. Leaves it carrieth of a mixt forme and reſemblance, between Plantain and Horehound. The branches or ſmall ſtalks grow in thicke tufts, and thoſe be of a light reddiſh colour: the ſeed in the head, of a Bur kind which ſticketh to folkes cloaths, whereupon they would have it to be called Helxine. But in the former booke I have deſcribed the forme of the right * Helxine or Parietarie indeed. The propertie of this hearbe, is to give a tincture or die to wooll: it healeth the ſhingles and S. *Anthonies* fire: it cureth ſwellings, and all apoſtemations of humours, yea and alſo burnes. The juice thereof incorporat with ceruſe or white-lead, and ſo applied, ſerveth greatly for biles and botches, S. *Anthonies* fire, tumours, gatherings and riſings in the fleſh; yea and helpeth them whoſe throat begins to ſwell. Alſo if a man take the quantitie of one cyath thereof, it cureth inveterat and old coughs: it healeth all infirmities either occaſioned by phlegmaticke humors, or els incident to moiſt parts: like as with oile roſat it is a proper medecine for the accidents of the amygdales about the paſſage to the throat; and for the ſwelling of veins. Moreover, if it be reduced into the forme of a cerot, with goats ſuet and wax of Cypres, and ſo applied, it cureth the gout. Moreover, Perdicium or Parthenium (for Sideritis is another hearbe) our countreymen call in Latine, * Vrceolaris; of others, Aſtericum. In leafe it is like to Baſill, ſave onely that it is blacker: it groweth upon tile-houſes, and old decaied walls, and ſuch ruinous places. Being beaten into powder & applied with corns of ſalt, it hath the ſame operation that the nettle Lamium, and cureth the ſelfeſame diſeaſes; and the one is uſed in like ſort as the other: and if the juice be drunke hote, it is ſingular for inward and ſecret impoſtumes full of filthie matter, and driveth them outward. Alſo it is excellent for ulcers, ruptures, and bruiſes, whether it be that one hath tumbled headlong from ſome high downfall, or that he hath been cruſhed by the overthrow of ſome waggon or chariot. It fortuned that a Page of *Pericles*, a prince of the Atheniens (whome he loved entirely) having climed up to the top of the lanterne or ſpire of a temple which the ſaid prince built in the caſtle or cradle of Athens, fell downe from thence; who was cured by the means of this hearbe, revealed unto *Pericles* in his ſleepe by the goddeſſe *Minerva*: whereupon it tooke the name firſt, of Parthenium, and is conſecrat unto the ſaid goddeſſe. This is that Page whoſe molten ſtatue is to be ſeen at this day made of braſſe: this is (I ſay) that noble and famous image called * *Splanchnoptes*.

C

D

E

* Parietarie of the wall.

* Where, to ſay a truth, he deſcribeth *Helxine* for *Ixine*, or *Chamæleon* the white.

* Dioſcor. *Cerato Cyprino.*

* or *Vitraria*, becauſe it is uſed to ſcoure glaſſe and pipkins withall.

* Made with a deviſe to blow coles & kindle fire for to roſt the inwards of beaſts ſacrificed: or as ſome thinke, it was the proper name of that youth.

Chap. xviii.

Of Chamæleon the hearb, the ſundrie kinds thereof, and the vertues medicinable.

F

COncerning Chamæleon, ſome there be who name it Ixias: whereof be two kinds: The whiter hath the rougher leaves: it creepeth cloſe by the ground, and ſetteth up ſtiffe prickles in manner of an Vrchin: the root is ſweet in taſt, but of a moſt ſtrong ſent. In ſome places it ingendreth a white kind of gum or clammie glew, under the wings or armepits (as it were) of the leaves, after the ſame manner as Frankincenſe is ſaid to breed, but eſpecially about the

riſing of the Dog-ſtar: and for that it is like to a kind of birdlime, it is called Ixia: our women uſe G
this inſtead of Maſticke. And the reaſon why this hearbe is named Chamæleon, is by occaſion of the variable leaves which it beareth: for according to the nature of the ſoile where it groweth, it chaungeth hew; whereby in one place you ſhall have it blacke, in another greene; here you ſhall ſee it looke blew, and there yellow, and evermore altering the colour. Of which Chamæleons, the white cureth ſuch as are in a dropſie, if the root be boiled, and the juice thereof taken to the quantitie of a dram in ſweet wine cuit. The meaſure of one acetable of the ſame juice, if one drinke in a greene harſh wine made of the hedge unripe grape, wherein certain bunches of Origanum have lien infuſed, it is thought to be a ſingular remedie to kill the wormes that breed in the guts. It availeth much alſo to helpe thoſe who piſſe with difficultie: and yet this juice beeing given to doggs or ſwine in barley groats, killeth them. If there bee water and oile mingled H
thereto, it draweth rats and myce to it, but it is their bane, unleſſe preſently they drinke water. Some preſcribe for to cut the root thereof into thin roundles, and to keepe them enfiled up, or hanging by a ſtring, and then to ſeeth them; for to be eaten againſt the flux of humours, which the Greeks name Rheumatiſms. Of the blacke kind, ſome have named that the male, which hath the purple floure; and the female, with the violet colour. They all grow up with one ſtem and no more, and the ſame is a cubit high, and a finger thicke. The roots are good to heale ringworms, tettars, and ſuch like wild-fires, if they be ſodden togither with brimſtone and Bitumen: but if the ſaid root be chewed in the mouth, or a collution be made therewith ſodden in vinegre, it faſteneth the teeth which ſhake and be looſe in the head. The juice of this root healeth the ſcab or mange in foure-footed beaſts. Herewith alſo folke uſe to kill the ticks that breed in dogs: but it I
ſtoppeth the wind of heifers and young ſteers in manner of a ſquinancie: and therefore of ſome it is called Vlophonon and Cynozolon, in regard of the ſtrong and ſtinking ſmell that it hath. Theſe Chamæleons doe beare a certaine viſcous gum, moſt proper for ulcers. And the roots of all the ſort of them, as well blacke as white, are ſingular againſt the poiſon of ſerpents.

Chap. xix.

Of Coronopus or Harts-horne, with the medicinable vertues thereof.

Coronopus is an hearb bearing long leaves, and thoſe cloven into certain fiſſures & knags: and howſoever it groweth wild, yet otherwhiles it is ſet and ſowne in gardens, for the excel- K
lencie of the root; which beeing roſted under the aſhes, is ſoveraigne for the flux, and weakeneſſe of the ſtomacke.

Chap. xx.

Of Orchanet or Alkanet, as well the right as the baſtard, and their properties in Phyſicke.

The root of Orchanet is much uſed about medicines: of the thickneſſe it is of a finger: it will rend and cleave in manner of the papyr reed: and it coloureth the hands of as many as handle it, with a red and bloudie colour: it prepareth wooll and woollen cloth for to L
take rich and deepe colours. If it be incorporat into the forme of a cerot, it healeth ulcers, eſpecially in old men; as alſo places that be burnt. It cannot bee reſolved in water, but it is oile that muſt diſſolve it: and verely this is a good experiment of that which is true and nothing ſophiſticat. A dram thereof given in wine to drinke, is ſingular good for the paine in the kidnies: but in caſe the Patient have a fever upon him, then it ought to be taken in the decoction of * Balanos. In like manner is it to bee uſed in the opilations or obſtructions of the liver, of the ſplene, and in the jaundiſe. A liniment made of it and vinegre, cureth the leproſie, and the red pimples ariſing in the face. The leaves ſtamped with honey and meale untill they be incorporat togither, and ſo applied as a cataplaſme, are thought to be good for diſlocations: but if they be taken inwardly to the quantitie of two drams in honied wine, they bind and knit the belly. The root boiled in M
water, is ſaid to kill fleas.

* Haply hee meaneth *Phœnicobalonos, id eſt*, the Ægyptian Date: or *Oxyphœnices*, our Tamarinds, a kind of Dates appropriat for agues.

Another hearb there is much like unto it, and thereupon called Pſeudanchuſa [*i.* baſtard Orchanet] of ſome, but of others Enchuſa or Doris; and many other names it hath beſides. More full of downe or hairie moſſe it is, and leſſe fattie; but the leaves are ſmaller, more ranke and

feeble.

A feeble. The root yeeldeth no oleous ſubſtance, but a reddiſh juice; wherein it differeth from the right Anchuſa or Orchanet. The leaves or ſeed being taken in drinke, is a moſt effectuall countrepoiſon againſt ſerpents. The ſubſtance of the leaves beeing applied to the places which bee ſtung, are ſoveraigne for to cure and heale them up. The very hearb it ſelfe chaſeth away all poiſon of ſerpents. There is a drinke made therof, commended highly for the chine or ridge-bone of the backe. The Magicians doe preſcribe the leaves to be bound unto ſome part of the Patient againſt a tertian ague, with this charge, That they be gathered with the left hand, and that in the gathering, the partie or Patient for whoſe ſake they are gotten, be named.

Chap. xxi.

B *Of Onochiles, Anthemis, Lotos, and Lotometra: of Turnſoll-Tricoccus: of Adiantum, and Callitrichon.*

ANother hearbe there is, particularly named Onochiles, which ſome call Anchuſa; others Arcebion or Onochelis; ſome Rhexias, and many Enchuſa: a ſmall hearbe this is; it carrieth a purple floure, leaves and braunches rough: a root in harveſt time as red as bloud, otherwiſe bleke; and groweth in ſandie grounds: effectuall it is againſt ſerpents, and Vipers moſt of all others, both in the root and leafe, as well eaten with meat as taken in drinke. In the full ſtrength it is in harveſt. The leaves if they be bruiſed or ſtamped, doe yeeld the ſavour and ſmell of a Cucumber. If the matrice of a woman be ſlipt downe, a draught of three cyaths ther-
C of, doth reduce it up into the place: and togither with hyſſope, it driveth out the broad wormes in the belly. For the paine of the kidnies or the liver, it ought to be taken in mead or honied water, if the Patient have an ague withall; otherwiſe in wine. The root brought into a liniment, cureth the lentils or red ſpots, yea and the infection of the leproſie. And it is ſaid, That as many as have it about them, cannot be ſtung by ſerpents. There is yet another Orchanet or Anchuſa like unto this, in regard of the red floure which it beareth; howbeit a leſſe hearbe than the other, having the like operation, and emploied in the ſame uſes. It is reported, That if one chew it in his mouth, and ſpit it forth upon a ſerpent, the ſame will ſurely die thereupon.

As touching Anthemis, [*i.* Camomile] *Aſclepiades* the Phyſician doth highly praiſe and commend it. Some name it Leucanthemis, others Leucanthemus; and there be, who give it
D the name Eranthemon, becauſe it flouriſheth in the Spring: others againe name it Chamæleon, for the ſent or ſavour that it hath of an apple: many call it Melanthemon. Three kinds there be of it, differing onely in the flours (for none of them exceed an hand-breadth in heigth) which be ſmall, and in forme reſemble thoſe of Rue: howbeit, theſe floures be either white, yellow, or red. In a leane ground and neare to beaten paths, this hearbe loveth to grow. Gathered it is in the Spring, and laid up for to ſerve in guirlands: at which time the Phyſicians alſo ſtampe the leaves and make them up into Troſches: ſo doe they alſo by the floure and the root. This vertue they have, That if they be all mingled togither to the weight of one dram, they are thought to be a ſoveraigne remedie againſt the ſting of all ſerpents. This hearb expelleth dead infants within the mothers wombe, if it be taken in drinke. It bringeth downe alſo the monthly fleurs of wo-
E men; provoketh urine, and ſendeth forth the ſtone and gravell. Being chewed, it diſſolveth ventoſities, it cureth the obſtructions and defects of the liver, it helpeth the jauniſe, healeth the fiſtuloes between the angle of the eye and the noſe, and generally all running ſores and mattering ulcers. But of all theſe kinds, that which beareth the red purple floure hath moſt effectuall operation for the ſtone: and indeed, both the leaves, and alſo the braunches of this Camomile, are ſomewhat larger than of the reſt: and ſome there be, who give this a name by it ſelfe, and call it Eranthemon. As for thoſe who take Lotos to be a tree onely, may be convinced even by the authoritie and teſtimonie of *Homer*, who among other hearbs growing for the delight and pleaſure of the gods, hath named Lotos as principall. The leaves of this hearbe incorporat with honey, and ſo applied, cure the cicatrices or ſcars in the eye; the ſpots alſo appearing therein, and diſſol-
F veth the cloudie skins which overcaſt the ſight. There is a kind of Lotos named Lotometra, comming of the garden Lotos: it carrieth a ſeed like to Millet, whereof in Ægypt the Bakers make bread; but they work and knead the floure of this ſeed with water or milke. There is not any bread in the world (by report) more holeſome and lighter than this, ſo long as it is hot; but being once cold, it is harder of digeſtion & becommeth weightie and ponderous. This is known for certain,

that as many as live thereof, are infested and troubled neither with the dysenterie or bloudie flix, ne yet with the troublesome offers and streins to the seege without doing any thing, nor any other diseases of the belly: and therefore it is counted a principall remedie for those maladies. Concerning Tornsoll, I have oftentimes related the wonderfull nature thereof, namely, how it turneth about with the Sun, although it be a close and cloudie day (so great is the love of this hearb to that planet:) and in the night season for want of the Suns presence, as if it had a great misse thereof, * it draweth in and shutteth the blew floure which it beareth. Two kinds there be of this Heliotropium or Turnsoll: of which, the lesse is called Tricoccum; the other, Heliosco-pium. Of the twaine, this later is the taller (and yet neither of them both exceedeth halfe a foot in heigth) and putteth foorth braunches from the very root. The seed of this greater sort lieth within a little cod, and is gathered in harvest time: it groweth not but in a fat soile and well manured; whereas Tricoccum commeth up every where. I find, that if it be boiled, it is a pleasant and delectable meat; but sodden in milke, it looseneth the belly gently and with ease: for otherwise the bare colature of the decoction in water, if it be taken, purgeth most extremely. The juice of the greater kind, ought to be drawne or gathered in Summer at noontide; which, if it be tempered with wine, becommeth more strong and effectuall. A propertie it hath, being mingled with oile of Roses, to mitigat head-ach. The juice drawn out of the leafe, medled with salt, taketh away werts: whereupon our Herbarists have called the hearbe in Latine Verrucaria, *id est*, Wertwort: whereas indeed, for other better effects and operations which it hath, it deserveth to have some denominations correspondent thereunto: for, a countrepoison it is against serpents and scorpions, if it be drunke with wine or honyed water, as *Apollophanes* and *Apollodorus* doe report in their writings. A liniment made of the leaves, cureth the rheums and distillations of the brain in children; which disease they call * Sitiasis. Likewise it helpeth contractions of sinewes and the drawing in of joynts, although the Patient be taken after the manner of the falling sickneſſe: and for such as be thus afflicted, a fomentation made with the decoction of this hearbe, is very holesome and comfortable: but if one drinke the colature thereof, it thrusteth forth the worms in the belly, and scoureth out the gravell in the kidnies. If Cumin be put thereto, it breaketh the stones engendred and confirmed there alreadie. Boiled it ought to be root and all; the which with the leaves and goats tallow being reduced into a liniment, is singular good for all kinds of gout.

The other kind which wee called Tricoccon, and is otherwise named Scorpiurion, hath not onely smaller leaves, but also they encline and bend downward to the ground. A seed it beareth resembling the figure of a Scorpions taile, whereupon it tooke that name. A liniment made therewith; is powerfull against all venomous beasts, and namely the perilous spiders Phalangia; but specially against the poison of scorpions. And in truth, looke who carrie this hearbe about them, shall not be stung. If a man make a circle or compasse upon the earth with the braunch of this hearb, a scorpion (as some say) being within the same, shall not have the power to get forth: nay, if the hearbe be laid upon a scorpion, or if with the same beeing wet a man besprinkle the said scorpion, it will surely die out of hand. It is said, that foure grains of the seed taken in drinke, doe cure the quartan; and three, the tertian: or if the very hearbe it selfe be laid under the Patients head, after it hath been thrice carried about the bed, it worketh the like effect. The seed is of power to stirre up carnall lust. Applied with honey, it discusseth biles rising in the emunctories. Yea and this Heliotropium for a certeintie, causeth werts to fall off by the very roots: as also it taketh away all excrescences in the fundament. It draweth downe by urine, the corrupt bloud in the reins and loins, lying cluttered about the ridge-bone, in case the seed bee either applied as a liniment, or sodden in the broth of a cocke or capon, and so supped off, or else with Beets and Lentils. As for the utmost rind of this hearbe, it is singular for to recover the fresh and native colour in places blacke and blew with stripes. The Magicians and Wise-men doe prescribe for the quartan and tertian agues, That the Patient should tie the hearbe Heliotropium, with three knots in a tertian, and with foure in a quartan, praying withall and making a vow, That hee would undoe those knots after hee were once cleare of the fever: but this he must doe before the hearb be taken out of the ground.

Another propertie as strange and miraculous, is reported of * Adiantum. In Summer it is greene: in Winter it withereth and decaieth not: it checketh all water, for being bespreint, dashed, and drenched quite therewith, yet it looketh as if it were drie: so great is the antipathie or contrarietie betweene them: whereupon the Greekes gave it that name. And otherwise a plant

* This is verefied of the Cichorie floure rather, which also regardeth the Sun.

* This is called *ardor capitis* by *Plinie* himself, and is an hote distemperature of the head.

* Maidenhair.

A it is fit for Vinet-workes and knots in a garden. Some call it Callitrichon, others Polytrichon, both which names were given it for the effect that it worketh. For it coloureth the haire [black.] And for this purpoſe it is ſodden in wine with the ſeed of Ach or Perſly: and a good quantitie of oile is put thereto, for to make the haire curled and to grow thicke: by which means it keepeth the hair from ſhedding & falling off. Two kinds ther be of it, the white and the black, which alſo is the ſhorter. The greater kind they call Polytrichon: the other, Trichomanes. Both of them have pretie fine branches ſhining with a black colour, and the leaves reſemble fearn; in which, the nether ſides underneath be rough, duskiſh, and brown: but all the leaves ſtand directly one againſt another in order, faſtened to the ſtalks by ſlender ſteles. No root at all theſe Capillar hearbs have: but they grow upon ſhadowie rockes and walls, daſhed and beaten upon with the water: but moſt of
B all they ſeeke after pits or holes of wels and ſprings, and ſtonie places whereat fountaines doe iſſue. And that is a ſtrange & marvellous thing: conſidering they are not wet with water, nor have any ſence or feeling thereof. They have a wonderfull facultie, and the blacke eſpecially, to break the ſtone, and to expell it out of the bodie. For which cauſe, rather than for growing upon ſtones and rockes, I beleeve verely it was by our countrymen called in Latin Saxifrage. To this purpoſe, as much as three fingers be able to plucke up, is ordinarily taken in wine. They provoke urine: and reſiſt the poyſon of ſerpents and venomous ſpiders. Being boiled in wine, they doe ſtay the flux of the bellie. A Chaplet made of them, allaieth the head-ach. And a liniment thereof is thought good to be applied againſt the ſting of the Scolopendres: but it muſt be often taken off and renewed, for feat the hearbe become over-drie and looſe all the vertue. In this wiſe is it to be uſed,
C where the haire is fallen away by ſome infirmitie. Theſe hearbes reſolve and diſcuſſe the kings evill: they diſpatch and rid away the ſkales or dandruffe in the viſage, and heale the ſkalls of the head. A decoction of theſe Maiden-haires, is ſingular good for thoſe who are ſhort winded: for the liver alſo, the ſpleene, the jaundiſe, and the dropſie. An ointment made with Maiden-haire and Wormewood, eaſeth the paines of the kidney: and in caſe of ſtrangurie, procureth eaſe and free paſſage of urine. They bring downe the after-birth in women, and their monthly tearmes. Howbeit, drinke them with vinegre or the juice of the blacke berrie bramble, they ſtanch bloud. A proper liniment is made thereof with oile Roſat, to annoint yong children which have the red gum and be all broken out: but firſt they would be bathed in wine. The leaves of Maiden-haire ſtamped with the urine of a man child under foureteene yeares of age, and not yet undergrown,
D together with the fome of ſalt-petre, is ſaid to keepe the bellies of women from wrinckles and rivels upon child-bearing, if they be annointed therewith. To conclude, men ſay, That Partridges and cockes of the game will fight more luſtily, in caſe this hearbe be entermingled with their meat. And the ſame alſo is very good for ſheepe to graſe upon about their folds.

Chap. xxii.

Of Picris, Theſium, Aſphodell, Alimus, Acanthus or Brankurſine, Elaphoboſcum, Scandix, Iaſione. Of Caucalis, Sium, Silybum, Scolymus or Limonium, Sonchus, Chondrillum or Chodrilles: and of Muſhromes.

E THe hearbe *Picris tooke the name (as heretofore we have ſaid) of the notable bitterneſſe which it hath. The leaves thereof be *round. Excellent good it is to take away werts. Theſium likewiſe commeth nothing behind for bitterneſſe: but it purgeth the bellie: for which purpoſe it muſt be ſtamped, ſtrained, and taken in water.

*A kind of Cichorie.

*So are none of our Cichories.

As touching the Aſphodell, it is one of the ſoveraign & moſt renowmed hearbs in the world. Some have given it the name Heroion. And *Heſiodus* hath written that it groweth in the woods. *Dionyſius* ſaith, That there is both male and female of it. Certaine it is, that the bulbous roots of the Aſphodell ſodden with husked Barley, is a ſingular reſtorative for thoſe bodies which are waſted with a conſumption, & eſpecially of the lungs. And bread made of them, wrought together with corne meale or floure into a dough, is moſt wholeſome for mans bodie. As for *Nicander*, he
F uſed to give either the ſtem which wee called Anthericon, or the ſeed, or elſe the Onion bulbous roots therof, in wine, to the quantitie of three drams, as a preſervative againſt ſerpents and ſcorpions: and to prevent the feare and daunger of theſe harmefull and peſtilent creatures, hee appointed the ſame to be laid under folks heads as they lay aſleepe. Vſually alſo is this hearb given againſt venomous fiſhes of the ſea, and the Scolopendres of the land. In Campaine, the ſhell-

ſnailes have a wonderfull ſpight againſt the maine ſtalke of this hearbe Aſphodell, for they ne- G
ver lin ſucking it, untill they have made it as drie as a kex. The leaves alſo are reduced into a li-
niment, for to be applied to envenomed wounds, occaſioned by ſuch ſerpents & hurtfull beaſts.
Likewiſe an ointment may bee made of the bulbous roots thereof, ſtamped together with Bar-
ley groats, for to annoint the ſinewes and joints. Good it is alſo to cut them into roundles, and
therewith together with vinegre, to rub ring-wormes and tettars. In like manner if they bee ap-
plied with water, they doe cleanſe putrified and rotten ulcers, yea, and the hote apoſtemations of
the paps and the cods. Being ſodden in wine lees, and ſo laid to the eyes, with a fine linnen rag
betweene, they cure the flux of humors thither, which cauſeth the eyes alwaies to water. Gene-
rally in any diſeaſe whatſoever, Phyſicians uſe the root of this hearbe boiled for the moſt part,
rather than otherwiſe. Likewiſe for the mor-males and uglie ſores in the legs, they uſe the pouder H
of them dried: as alſo for the fiſſures and chaps appearing in any part of the bodie. Now, the on-
ly fit and convenient ſeaſon to gather theſe roots, is in Autumne, at what time they bee moſt in
force. Being ſtamped raw, or ſodden, there is a juice preſſed foorth of them, which is ſoveraigne
with honey, for any pains of the bodie, whether it be the collicke, or ſeated in the muskles. And
the ſame being mixed with the drie root of Flower-de-lis, and a little quantitie of ſalt, is paſſing
good for thoſe that affect a ſweet ſmell, and would palliat the ranke ſavor of any part of the bodie.
Moreover, the leaves of the Aſphodell ſerve for all the former maladies, as alſo for the kings evil:
for red and flat biles, gout-roſat, ſauce-fleame, ale-pockes, and ſuch like ulcers in the face; if the
ſame be ſodden in wine, & therewith the greeved parts bathed. The aſhes of the root burnt, bring
haire againe upon the head where it was loſt and gone, and healeth up the chaps and rifts in the
feet. The juice of the root ſodden in oile, is good for kibed heeles, for burnes or skalds. To helpe I
the hardneſſe of hearing, the ſame juice is to be dropped into the ears: but to aſſuage the tooth-
ach, it muſt be inſtilled into the eare of the contrary ſide. The ſame root taken in drink moderat-
ly, is ſingular for to procure urine, to provoke womens months, & to mitigat the pain of the ſides
or pleuriſie. But given in wine to the weight of one dram, it cureth ruptures, convulſions or cramps
and coughs. The ſame being chewed, helpeth forward vomites, and cauſeth them to come with
more eaſe. The ſeed, if it be taken inwardly, troubleth and wringeth the belly. *Chryſermus* the Phy-
ſician uſed to boile the root in wine, and therewith cured the ſwelling kernils and inflammations
*The ſeed of a kind of Roſe-marie. behind the eares: likewiſe, with an addition of *Cachrys and wine, he healed the kings evill. Some
ſay, that if one take the Aſphodel root, and lay one part therof to thoſe ſwelling kernils called the
kings evill, & remove it upon the fourth day, letting the other part to hang in the ſmoke; the ſaid K
kernils will drie away, even as the root dooth in the chimnie. *Sophocles* (for the gout) uſed the root
both waies, as well raw as boiled. In caſe of humble-heels he applied it ſodden in oile: but to them
that were fallen into the jaundiſe or dropſie, he gave it in wine. Some writers have ſet down in their
books, that if either the members of generation be annointed with a liniment made therwith and
wine and hony together, or if the ſame be taken in drink, it will mightily provoke fleſhly luſt. *Xe-
nocrates* affirmeth, That a decoction of the root in vinegre taketh away the ring-wormes, tettars,
and running ſcabs. *Item*, If the root be boiled with Henbane and Tar, and therwith the armholes
and parts between the legs be well rubbed, it will rid away the ſtrong and ranke ſavor which com-
meth from thence: and if the head be firſt ſhaven, & afterwards rubbed with the ſaid root, the hair
comming afterwards will curle and frizle the better. *Simus* the Phyſician boileth it in wine, and ſo L
giveth it in drink, for to ſcoure away the ſtones of the kidnies. *Hippocrates* preſcribeth to give the
ſeed againſt the hardnes of the ſpleene and the flux proceeeding from thence. Furthermore, the
root being brought to a liniment, or the very juice thereof ſodden and uſed accordingly, healeth
the farſins, mange, and ſcab, in horſes, and reduceth the place to beare haire againe as faire as be-
fore. Aſphodell hath a propertie to chaſe away mice and rats: and if their holes bee ſtopped up
therewith, they die within.

Some are of opinion, that *Heſiodus* called Aſphodel, Alimon: which I take to be a meer untruth.
For ther is an hearb by it ſelfe called Alimon, about which writers have erred not a litle: for ſome
ſay, that it is a ſhrub growing thick, of a white colour, without any prick or thorn, bearing leaves M
like the Olive tree, but that they be ſofter: & this plant is entertained in the kitchin, there ſodden
and dreſſed for to be ſerved up as meat to the table. The root taken to the quantitie of one dram
in honied water, diſpatcheth the torments of the bellie: it cureth alſo convulſions and ruptures.
*Alyris rather, according to *Actius*. Others affirme, That *Alimon is a ſea-wort, of a ſalt and brackiſh taſt, whereof it had the name.

The

A The leaves be round, and yet after a ſort long withall: and the whole hearbe is highly commended for the pleaſant taſt, and good to be eaten. Moreover, there be two kinds of it: for the one is wild: the other is of a more civile & gentle nature. And both of them (by their ſaying) are good to be eaten with bread for the bloudie flix, even when the guts bee alreadie exulcerat: but with vinegre, for to comfort and helpe the ſtomacke. A liniment made of Alimon raw, is ſingular for old feſtered ulcers: and the ſame doth mitigat the ſymptomes that follow green wounds: as alſo aſſuageth the paines enſuing upon ſpraies and diſlocations of the foot: yea, and pacifieth the greeſe of the bladder. The wild of this kind hath ſmaller leaves; but more effectuall it is in the remedies beforeſaid: and withall, healath the ſcab as well in man as beaſt. Over and beſides, they do affirme, That if the bodie be rubbed with the root, the skin will be the fairer and more ſmooth: or
B if the teeth be ſo ſerved, they will be the whiter. Alſo that whoſoever hold the ſeed thereof under their tongues, they ſhall not be drie nor feele thirſt. This kind is likewiſe eaten at the bourd: and both of them are kept and preſerved condite. *Cratevas* hath made mention of a third ſort, which hath longer leaves than the reſt, and more rough in the hand: in ſmell reſembling the Cypreſſe tree, who ſaith, That it delighteth principally to grow under the Yvie tree: which if it be taken to the weight of three oboli in a ſextar of water, helpeth thoſe that have their heads and bodies drawne far backe, and ſuch as be troubled with the contraction and ſhrinking of ſinewes.

As touching Acanthus or Brankurſine: an hearbe it is cheriſhed much in gardens, proper for vinets and ſtorie workes, bearing upright and long leaves, wherewith beds-ſides and borders of quarters in gardens are beautified and decked. Two kinds there be of it: one with prickie leaves in
C manner of thiſtles, and the ſame jagged, which is the leſſe and lower of the twaine: but the greater, which ſome in Greeke call Pæderos, others Melamphyllon, is ſmooth leaved. The leaves of this Brankurſine being applied, are wonderous good for burns and diſlocations. Alſo being ſodden with meat, and eſpecially with Piſane or husked Barley, it is ſingular for thoſe who are burſten, troubled with the crampe, and ſubject to the conſumption of the lungs. Alſo if they be ſtamped and reduced into the forme of a liniment, and laid too hot, they cure the gouts proceeding from an hote cauſe.

The hearbe *Bupleuron, is reckoned by the Greeke writers in the number of worts that grow of themſelves. A ſtem it hath of a cubit in height: many leaves, & thoſe growing long in a ſpoke-tuft, or rundle in the head, in manner of Dill; highly commended by *Hippocrates* for good meat:
D but *Glycon* and *Nicander* praiſe it as much for the uſe thereof in Phyſicke. And in very truth the ſeed is powerfull againſt ſerpents. The leaves alſo, or the very juice, incorporat with wine into the forme of a liniment, they employ for to bring downe the after-birth of women newly delivered: as alſo the leaves, with ſalt and wine, are uſed by way of cataplaſme, for to diſſolve the ſwellings called the kings evill. As for the root, it is uſually given in wine againſt venomous ſerpents, and to provoke urine.

*Bupreſtis is an hearbe, about which the Greek writers have ſhewed themſelves, namely, how inconſtant and light of credit they be; in that they have ſo highly praiſed it to be a ſpeciall holeſome meat, yea, and a ſingular remedie againſt poyſons. For the very name doth ſhew evidently, that it is a poyſon it ſelfe, of Kine and Oxen at leaſtwiſe. And they themſelves doe confeſſe, That
E if ſuch cattell taſt of *Bupreſtis, it will make them enraged, and fall a gadding untill they burſt in ſunder. And therefore I will not ſpeake any more of this hearbe: for there is no reaſon that may induce me to deſcribe theſe venomous weeds, among thoſe that ſerve for the greene Guirlands aforeſaid made of graſſe: unleſſe haply it bee this, That ſome one or other would ſeeke after this hearbe to weare it in a Chaplet for luſt ſake: *which indeed (they ſay) it will provoke no leſſe that way, than if it were taken in drinke.

*Elaphoboſcon is an hearbe growing up with a maine ſtem, after the manner of Fenellgeant: the ſame is full of knots and joints, as thicke as a mans finger. The ſeed is made after the faſhion of Berries hanging downe in manner of Sili or Siler-mountaine: howbeit, nothing bitter they are, and the leaves reſemble thoſe of Aliſanders. This hearbe is taken for a commendable meat.
F And in truth is kept alſo and preſerved a long time confected and condite, for a ſingular remedy to procure urine, to allay the paine of the ſides in the pleuriſie, to heale ruptures, to cure convulſions and cramps, to diſcuſſe ventoſities, to aſſuage the dolorous torments of the collicke: yea, & as a very countrepoyſon againſt the ſting of ſerpents, & all other creatures armed with ſtings: for the report goeth, That Stags and Hinds by feeding thereupon, withſtand the venome of ſerpents.

*Some name it Hares-eare.

**Heſych. Βύπρηστις ὄλυς. βύπρηστις ἔντομον ἰὸν ἔχον.*

* But they meane the venomous Inſect *βύπρηστις.*

*In truth the flies Bupreſtes, which ſome take to be Cantharides, are thought to have ſome operation in that kind.

*Which ſome take for a kind of wild *Angelica* or *Gratiæ dei.*

pents. The root alſo reduced into a liniment with Sal-nitrum, put thereto and incorporat toge- G
ther, cureth old ſores called Fiſtulaes. But the ſaid root ought to bee dried firſt for thoſe purpo-
ſes, to the end that it ſhould not be full of the owne juice and moiſture: and yet this humor dul-
leth not the vertue thereof, nor maketh it leſſe effectuall againſt the ſting of ſerpents.

Pecten veneris, wild Chervile, or ſheepheards needle.

Touching the hearbe *Scandix, the Greekes have raunged it alſo among the wild worts and pothearbes good for to be eaten, according to *Opion* and *Eraſiſtratus*. The ſame being ſodden, knitteth the bellie and ſtoppeth a laske. The ſeed taken with vinegre, preſently ſtaieth the yox or hicquet: it provoketh urine, and ſerveth well in a liniment to heale up burnes. The juice of it be-
ing boiled to a juleb, is good for the ſtomack, liver, kidneies, and bladder. This is the hearb which *Ariſtophanes* the Comædian twitted the Tragicall Poet *Euripides* by, objecting unto him meri-
ly by way of a ſcoffe, That his mother (who was a gardener) uſed to ſit in the market and ſell never H
a good wort or pothearbe indeed, but made her markets onely of Scandix. And verely, I would
Our Chervile. ſay that *Anthriſcus were the ſame hearbe, if it had ſmaller, tenderer, and ſweeter leaves: This pe-
culiar praiſe & commendable propertie it hath, that if the bodie be overlaied and wearied with the uſe of women, it reſtoreth the ſpirits, and refreſheth them again: yea, & ſuch as be well ſtept in years and begin to droupe, it maketh luſtie and able to perform the act of generation youth-
fully. It ſtaieth the flux of the whites in women.

A kind of ſmooth Bind-weed.

Moreover, *Iaſione is counted alſo a wild wort, comming up of it ſelfe and good to be eaten. This hearbe creepeth by the ground: full of milke it is, and beareth a white flower, which ſome call Concilium. The like name and commendation there goeth of this hearbe for ſtirring unto letcherie. Being taken raw with meat in a vinegre ſauce, it breedeth plentie of milke in women. A I
ſingular reſtorative it is for them that feele themſelves wearing and decaied by a conſumption. A liniment made therewith, and applied to the head of young infants, cauſeth haire to come up thicke: and by ſhutting the pores of the skin more cloſe, it is a meanes to retaine the haire ſtill, that it ſhed not eaſily.

Baſtard Perſly.

As for *Caucalis, an hearbe like to Fennell, but that it hath a ſhort ſtalke and a white flower: it is good alſo to be eaten, and is beſides counted a cordiall. A drinke likewiſe is made of the juice thereof, paſſing comfortable to the ſtomacke: of power to provoke urine, to expell gravell and ſtone, and to ſtay the itching within the bladder: It doth ſubtiliat the groſſe and tough fleame, which cauſeth obſtructions in the ſpleene, liver, and kidneies. The ſeed being taken inwardly, hel-
peth forward the monthly ſickneſſe of women when it ſtaieth upon them, and drieth up the cho- K
lericke humors that flow after child-birth, or the after-burden. It is given alſo to men, for the ſpil-
ling of naturall ſeed, or the running of the reins. *Chryſippus* is of opinion, That it is ſingular good to helpe women for to conceive, if they be deſirous of children. But the manner is to drinke it in wine next the heart faſting. And as *Petricus* the Poet hath delivered in verſe, a liniment of this hearbe is ſingular againſt the poyſons of venomous ſea-beaſts.

A kind of water-Creſſes or Laver.

Among theſe hearbes is reckoned *Sion, a plant growing in waters of it ſelfe, with leaves like Perſely or Smallach, but that they be larger, fatter, and of a deeper blackiſh green: it beareth ſeed plentifully, and in taſt reſembleth water-creſſes. It is thought to be excellent good for thoſe that cannot make water; for the diſeaſes of the reins, and paine in the ſpleen; yea, & for women whoſe monthly tearmes be ſuppreſſed: whether the ſubſtance thereof bee taken as meat, or the juice of L
the hearbe decocted, or the ſeed drunk in wine to the weight of two drams. It breaketh the ſtones engendred within the bodie: and notwithſtanding it groweth in water, yet it dooth evacuat thoſe aquoſities and waterie humors which engender the ſame. Being clyſterized, it helpeth thoſe that have the bloudie flix. If women annoint their faces with a liniment made of it overnight, it dooth embelliſh their skin at one inſtant and with one dreſſing: yea, it taketh away the pimples and ſpots that disfigure the face, in manner of Lentils. This ointment is held alſo to be good for the farſins and ſuch ſores, in horſes and ſuch like beaſts: and to mitigat the greevous paines and trou-
ble of any ruptures.

As concerning Silybus, an hearbe like unto the white Chamæleon, and as full of thornes: it groweth abundantly in Cilicia, Syria, and Phœnice: and yet in theſe countries they make not ſo M
much account of it as to beſtow the dreſſing of it, it asketh ſo much adoe in the kitchin before it be in caſe to be ſerved up into the hall. And for Phyſicke, there is no goodneſſe in it at all.

Some take theſe for our Artichokes.

The plant *Scolymus is uſed alſo much to bee eaten in the Eaſt parts, where they call it by another name Limonia. It never exceedeth a cubite in height: the leaves bee creſted, the root

blacke,

A blacke, but yet ſweet. *Eratoſthenes* commendeth it as a principall diſh for a poore mans table: and it is ſaid that it hath a ſpeciall vertue to provoke urine: and with vinegre if it be applied, to cure the foule tettars called Lichenes, and the leproſie. Alſo, by the teſtimonie of *Heſiodus* and *Alcæus*, if it be taken in wine, it inciteth to wantonneſſe and fleſhly pleaſures. Theſe Poets doe write, That when this hearbe doth flouriſh and is at the beſt, then graſhoppers chant loudeſt and ſing moſt thrill: and as women at ſuch a time be moſt deſirous of mens companie and hoteſt in luſt, ſo contrariwiſe men are moſt loth to turne unto them, and leaſt able to content their appetite: as if Nature to ſatisfie the pleaſure of theſe good wives, had provided againſt that faint ſeaſon, the help of the Artichoke, as a viand moſt powerfull at this time to ſet their husbands in a heat, and to enable them to that buſineſſe. Moreover, an ounce of the root cleanſed from the pith, ſodden
B to the thirds in three hemines of the beſt Falerne wine, and either taken in drinke upon an empty ſtomack, preſently after that one hath ſweat, and is new come forth of the Baine: or els to the quantitie of one cyath immediatly after every meale, doth correct and take away the ſtinke and ranke ſmell of the arme-pits. And a ſtrange thing it is, that *Xenocrates* affirmeth upon his own experience, and promiſeth, That this decoction is of ſuch efficacie, that it cauſeth the ſaid ſtrong ſent to paſſe away by the urine.

Moreover, the *Sowthiſtle is an hearbe for to be eaten: for we read in the Poet *Callimachus*; That the poore old woman *Hecale*, at what time as prince *Theſeus* fortuned upon neceſſitie to take his repaſt in her ſimple cottage, made him a feaſt, and ſet before him a principall diſh of Sowthiſtles. Two kinds there bee of them, the white, and the blacke: both, like unto Lectuce, but
C that they are full of prickes. They run up into a ſtalke of a cubite in height, the ſame is cornered and hollow within; but breake it, and you ſhall ſee it run out with milke plentifully. The white, which hath that bright colour of the milke within it, is thought to bee as good as Lectuces, for thoſe that be ſtreightwinded, & cannot take their breath but upright. *Eraſiſtratus* ſheweth plainely, That if it bee eaten, it expelleth gravell by urine: and chewed onely, it correcteth the ſtinking ſavor of the mouth, and cauſeth one to have a ſweet breath. The juice thereof drawn to the meaſure of three cyaths, made hot in white wine and oile, and ſo taken, helpeth women in labor, that they may bee ſoone delivered: but preſently after they have drunke it, they ought to ſtir their bodies and walke up and downe their chamber. Alſo it is uſed to be ſodden in broth, and ſo ſupped up. The very ſtalke thereof being boiled, maketh milch nources to have good ſtore of milke, and
D the children at their breaſt to be better coloured. But moſt excellent it is for ſuch nources as feele their milke to cruddle in their breaſts. The juice therof dropped into the eares, doth them much good: and a meaſure of one cyath drunke hote, is as good for the ſtrangurie. But in the fretting and gnawing of the ſtomacke, it would be taken with Cucumber ſeed and Pine-nut kernils. Applied in forme of a liniment, it cureth the apoſtemations in the fundament. A drink is made therof, which is a countrepoyſon againſt ſerpents and ſcorpions: but then the root alſo muſt be laid outwardly unto the ſore place. The ſame root boiled with oile within the pill of a pomgranat, is a good remedie for the paines and maladies of the eares. Note, that all theſe vertues muſt be underſtood of the white Sowthiſtle. And *Cleemporus* doth accord hereunto as touching the white; but he alloweth in no wiſe to eat of the blacke, for he is of opinion, that it breedeth diſeaſes. *Aga-*
E *thocles* alſo preſcribeth the juice of the white Sowthiſtle to them who have drunk Buls bloud, and ſuſpect themſelves poyſoned therewith. Howbeit, they bee all agreed, that the black is refrigerative: in which regard it ought to be applied outwardly with Barley groats. *Zenon* declareth, That the root of the white Sowthiſtle, cureth the ſtrangurie.

As for *Chondrillon or Chondrille, it hath leaves like unto Endive or Cichorie leaves gnawed or eaten round about: a ſtem not a foot high, and the ſame full of a bitter juice: a root like unto *a Beane, and otherwhile there be many of them together. This hearbe putteth forth cloſe to the ground a certaine kind of gum like Maſticke, ſwelling out to the bigneſſe of a Bean; which being applied to the naturall parts of women, is ſaid to draw downe their monthly courſes. The ſame hearbe being ſtamped root and all together, and digeſted into troſches, is thought to bee
F ſingular good againſt ſerpents. And a probable reaſon hereof is collected, becauſe the field mice and rats when they are ſtung by ſerpents, have recourſe to this hearbe, and eat thereof. The juice drawne out of this hearbe after it is ſodden in wine, bindeth the bellie. The ſame is ſingular good to rectifie, couch and lay even the diſorderly haires of the eye-lids, as effectually as the beſt gum in the world. *Dorotheus* the Poet hath delivered in his verſes, That it is good for the ſtomack, and helpeth

*Sonchus.

*Gum Succhorie.

* *Dioſc.* πάχιον, i. full and freſh: but it ſeemeth that *Pliny* read it ὑγρόν.

helpeth digeſtion. Some hold opinion, That it is naught for women and hurtfull to the eyes, alſo G
that it is contrarie to the ſeed of man and doth hinder generation.

Among all thoſe things which are eaten with daunger, I take that Muſhromes may juſtly bee raunged in the firſt and principall place. True it is, that they have a moſt pleaſant and delicat taſt, but diſcredited much they are and brought into an ill name, by occaſion of the poyſon which *Agrippina* the Empreſſe conveighed unto her husband *Tiberius Claudius* the Emperor, by their meanes: a daungerous preſident given for the like practiſe afterwards. And verely by that fact of hers, ſhe ſet on foot another poyſon, to the miſcheefe of the whole world and her own bane eſpecially (even her owne ſonne *Nero*, the Emperor, that wicked monſter.) The venomous qualitie of ſome of theſe Muſhromes, may bee ſoone knowne by their weake redneſſe, their mouldie hew ſo unpleaſant to ſee to, their leaden and wan colour within-foorth, their chamfred ſtreakes full of H
chinkes and chaps, and finally, their edges round about pale and yellow. For, others there be that have none of all theſe markes: but are drie, and carie certaine white ſpots like to drops or grains of Sal-nitre, putting foorth in the top out of their tunicles. And in truth, before that the Muſhrome is formed, the earth bringeth forth a certain pellicle or coat firſt, called in Latine Volva; for this purpoſe, that the Muſhrome ſhould lie in it: and then afterwards ſhee engendreth it encloſed within, much like as the yolke of an egg couched within the white. And ſo long as the Muſhrome is young & not come forth, but lieth as a babe within, the ſaid core or tunicle is as good meat as the Muſhrome it ſelfe: but ſo ſoon as the Muſhrome is formed, this membrane breaketh, and incontinently the bodie or ſubſtance thereof is ſpent in the ſtele or foot that beareth it up: and ſeldome ſhall you ſee two Muſhromes upon one of theſe ſteles or feet. Moreover, theſe Muſhromes take their firſt originall and beginning of a ſlimie mud, and the humor of the earth that I
is in the way of corruption: or els of ſome root of a tree, and ſuch for the moſt part as bear Maſt. It ſeemeth at the firſt, as if it were a kind of glutinous fome or froth: then it groweth to the ſubſtance of a pellicle or skin, and ſoone after ſheweth the Muſhrome indeed, bred, formed, and conſummat within, as is beforeſaid. And verely all ſuch are pernicious and utterly to be rejected, neer unto which when they come new out of the ground, there lay either a greive-ſtud or leg harneis-naile, or ſome ruſtie yron, or ſo much as an old rotten clout: for looke what naughtineſſe ſoever was in any of them, the ſame they draw and convert into venome and poyſon. But none are able to diſcerne theſe huttfull Muſhromes from others, how curious and circumſpect ſoever they bee, ſave onely the peaſants of the country where they grow, and ſuch as have the gathering of them. And here is not all the miſcheefe that lieth in them: For dangerous they be otherwiſe, and meet K
with more meanes to make them deadly, namely, if a ſerpents hole or neſt be neare by: or if at their firſt diſcoverie and comming forth, a ſerpent chance to breath and blow upon them: for ſo prepared they be and diſpoſed as a fit ſubject, to enter, that preſently they will catch and entertain any poyſon. And therefore on any hand we muſt not be bold & luſtie with them before the time that ſerpents be retired into the ground, and there taken up their harbor. Which is an eaſie matter to know, by the tokens of ſo many hearbes, trees, & ſhrubs, which from the time that they firſt come abroad above ground, untill they have taken up their Winter lodging againe, looke alwaies freſh and greene: and principally by the leaves of the Aſh, alone, if there were no more trees: for Aſhes neither bud and ſpring forth, but after that ſerpents come abroad; nor ſhed and L
fall away, before they be gone into the ground againe. In ſum, this would bee noted, That Muſhromes be up and down, come and gone, alwaies in a ſeven-night ſpace. Thus much of the Muſhromes named in Latine Boleti.

Chap. xxiii.

Of other Muſhromes or Tad-ſtoles called Fungi. Of Silphium, and Laſer.

AS touching thoſe excreſſences in manner of Muſhromes, which be named Fungi, they are by nature more dull and ſlow. And albeit there bee many kinds of them, yet they all take their beginning of nothing els but the ſlimie humor of trees. The ſafeſt and leaſt daunge- M
rous be thoſe, which have a red calloſitie or outward skin, and the ſame not of ſo weake a red, as that of the Muſhromes called Boleti. Next to them in goodneſſe are the white, and ſuch as having a white foot alſo, beare a head much reſembling the Flamins turbant or mitre, with a tuffet or creſt in the crowne. As for the third ſort which be called Suilli, as one would ſay, Swine-Muſh-

romes

A roms or Puffs, they are of all others most perilous, and have the best warrant to poison folke. It is not long since that in one place there died thereof, all that were of one houshold; and in another, as many as met at a feast and did eat thereof at the same bourd. Thus *Annæus Serenus*, captaine of the Emperour *Nero* his guard, came by his death, with divers coronels and centurions, at one dinner. And I woonder much, what pleasure men should take thus to venture upon so
1 doubtfull and dangerous a meat. Some have put a difference of these mushroms, according to the severall trees from which they seeme to spring, & have made choice of those that come from the Fig-tree, the * Birch, and such as beare gum. For mine own part, as I have said before, I hold those good that the Beech, Oke, and Cypresse trees do yeeld. But what assurance can a man have hereof, from their mouths who sit in the market to sell them? for all the sort of those Puffs and
B Toadstools looke with a leaden hew and wan colour. Howbeit, the nearer that a Mushrom or Toadstoole commeth to the colour of a fig hanging upon the tree, the lesse presumption there is that it is venomous.

Touching the remedies for to help those who suspect they have eaten these dangerous mushroms, I have said somewhat alreadie, and will say more hereafter. Meane while this would be noted, that as perilous as they be, yet some goodnesse there is in them, and divers medicines they doe yeeld. First and foremost, *Glaucias* thinketh and affirmeth, That the mushroms Boleti be good for the stomacke. As for the swine mushroms, named in Latine Suilli, they are hanged up to drie enfiled upon a rush running through them, as we may see in those which come out of Bithynia. And these are supposed to be singular for those fluxes and catarrhes which take a course
C to the belly and breed fluxes, called by the Greeks Rheumatisms: these cure the excrescenses of the flesh, which rise in the fundament; for they eat them down, and in tract of time consume them quite: likewise they are good to take away the pimples and freckles which appeare upon the skin like to Lentils, yea and the deformities and spots in womens faces which disfigure their beautie. These mushroms be * washed as lead, for to enter into collyries and eye salves: and a liniment is made thereof, which beeing applied with water, cleanseth filthie sores and ulcers, cureth the skalls which breake out in the head, and healeth the wounds occasioned by the biting of dogs.

And now for that our fine-mouthed and daintie wantons who set such store by their tooth, take so great delight to dresse this onely dish with their owne hands, that they may feed therupon in conceit and cogitation all the while they bee handling and preparing the same, furnished in
D this their businesse with their fine knives and rasors of amber, and other vessels of silver plate about them: I for my part also am content to frame and accommodat my selfe to their humorous fansie, and will shew unto them in generall, certain observations and rules how to order and use them, that they may be eaten with securitie. Marke then those mushroms, which in the seething proove hard and tough, such be all of them hurtfull: Lesse daungerous they be, if some sal-nitre be put unto them whiles they be a boiling over the fire; provided alwaies, that they be fully sodden before they be taken off. Also, a man may be more bold to eat those which be sodden together with flesh meat, or with the tailes or steles of peares. The eating also of peares, immediatly after one hath fed upon mushroms, doth kill or dull all the malice that they may have. Also vi-
E negre is of a contrarie nature unto them, and doth extinguish or mortifie their venomous qualitie. To conclude, all these mushroms do come up and are engendred in raine. Semblably, good showres doe breed Silphium.

This Silphium came at the first from Cyrenæ, (as I have before written) but now adaies, since time that all the Cyrenaick Silphium is destroyed and gone (as hath been said) the greatest store thereof is brought out of Syria: howbeit so good it is not as that which Parthia yeeldeth, although it be better than that which the merchants bring over with them out of Media. This * Silphium is of great use in Physicke; for the leaves are sodden in white odoriferous wine: of which decoction, there is made a drinke for to cleanse and purifie the matrice, and to expell the dead infants therein; so it be taken to the measure of one Acetabulum, immediatly after the woman hath ben in the stouve, and there swet. The root is singular for to cleare the windpipes, and to take away
F all the asperitie & roughnesse in those parts: and being applied in forme of a liniment, it helpeth impostumat inflammations proceeding from the rankenesse and ebullition of bloud: and yet as many as take it at the mouth and eat thereof, find that it is hard of digestion; for it breedeth ventosities and causeth much belching. Hurtfull also it is and contrarie to the free passage of urine. A liniment made thereof, together with wine and oile, is a most familiar and agreeable medicine

* *Betula*, non *Ferula*.

* *Lavantur* us *plumbum*, some read *Linuntur ad plumbum*: *id est*, A liniment is made of them for lead-shotten eyes, &c. *vide cap.* 13. *lib.* 25.

* or *Laserpitii*.

for the blacke and blew marks remaining after ſtripes: but if the ſame with ſome addition of wax, G
be reduced into a cerot, it healeth the Kings evill. The piles or werts growing in the fundement, with a ſuffumigation of Silphium oftentimes uſed, will fall off.

As for the liquor Laſer, iſſuing from Silphium, (in that manner as I have ſhewed) it is holden for one of the moſt ſingular gifts that Nature hath beſtowed upon the world, and entreth into many excellent confections and compoſitions. Of it ſelfe alone, it reduceth thoſe to their naturall health, who are ſtorven and benummed with extreame cold. Taken in drinke, it allaieth the accidents and griefes of the nerves. It is both given to women in wine, and applied alſo in ſoft locks of wooll to their naturall parts, for to bring downe their menſtruall purgation. If it be mixed and incorporat with wax, it draweth and fetcheth out by the roots, the agnels or corns in the feet, if ſo be they be ſcarified round about before with the launcet. Being diſſolved in ſome convenient liquor and taken to the quantitie of a cich peaſe, it provoketh urine. *Andreas* the Phyſician H
doth aſſure and warrant us, That if it be taken in greater quantitie, it breedeth no windineſſe in the ſtomacke, but helpeth digeſtion mightily both in women and alſo in old men: Who ſaith moreover, that it is better and more holeſome in winter than in ſummer, and for thoſe eſpecially who drinke nothing els but water: onely they muſt looke to this and take heed, that there be no exulceration within their bodie. A great reſtorative it is with meat, and quickly ſetteth them on foot, who have lien long and been brought low by ſickneſſe: for Laſer, if it be applied in due time, is as good as a potentiall * cauterie to raiſe a bliſter: but better it is for them who are acquainted with it, than for thoſe who have not ben uſed to it. Outwardly applied, no man maketh doubt but it is of ſingular operation, and worketh many effects. Taken in drinke, it doth extin- I
guiſh the venome left in the bodie, either by poiſoned dart, or ſerpents ſting: and if the wounds bee annointed with the ſame, diſſolved in water, it is the better: but particularly for the pricks of ſcorpions, it would be applyed with oile. Alſo in caſe that ulcers will not grow to any maturation, nor yeeld from them concocted matter; a pulteſſe made of Laſer, togither with barley flowre or figs, is a ſingular digeſtive. Being laid too with Rue, or hony, or by it ſelfe alone (ſo that the place be annointed over it with ſome viſcous gum to keepe it too that it run not off) it is excellent for the carbuncle, and the biting of dogs. If it be ſodden in vinegre with the rind or pill of a pomegranat, it is paſſing good for the excreſcences ariſing about the tiwill, if the place be bathed with that decoction. Being incorporat with Sal-nitre, and well wrought withall beforehand, and ſo applied, it taketh away the hard horns and dead corns ariſing in the feet, which commonly bee K
called in Latine Morticini. Tempered with wine and ſaffron or pepper, or if it be but with mice dung and vinegre, it is a good incarnative in ulcers: and an excellent drawer to the outward parts for to fill up the skin and make a bodie fat. A good fomentation there is made of it & wine, for to bath kibed heels: for which purpoſe, it is boiled in oyle and ſo applyed. In like manner, it ſerveth to ſoften hard calloſities in any place whatſoever: and for the foreſaid corns of the feet eſpecially, if they be ſcarrified and ſcraped before, it is of great efficacie. Singular it is againſt unholeſome waters, peſtilent tracts, and contagious aires; as in times ſuſpected of infection. Soveraigne it is for the cough, the fall of the Vvula, and an old jaundiſe or overflowing of the gall: for the dropſie alſo & horſeneſſe of the throat; for preſently it ſcoureth the pipes, cleereth the voice againe, and maketh it audible. If it be infuſed and diſſolved in water and vinegre, and ſo applyed L
with a ſpunge, it aſſuageth the gout. Taken in a broth or thin ſupping, it is good for the pleureſie, eſpecially if the Patient purpoſe to drinke wine after it. Being covered all over with wax to the quantitie of one cich peaſe, it is given very well in caſe of contractions and ſhrinking of ſinews, and namely to ſuch as carrie their heads backward perforce, by occaſion of ſome crick or cramp. For the ſquinance, it is good to gargarize therwith. Semblably it is given with leeks and vinegre, to thoſe that wheaze in their cheſt, and be ſhort winded, & have had an old cough ſticking long by them: likewiſe with vinegre alone, to ſuch as have ſupped off and drunke quailed milke, which is cluttered within their ſtomacke. Taken in wine, it is ſingular for the faintings about the heart; as alſo for colliquations and ſuch as are falne away and far gone in a conſumption, & thoſe that be taken with the falling ſickneſſe: but in honyed water, it hath a ſpeciall operation reſpective to M
the palſie, or reſolution of the tongue. With ſodden honey and Laſer together, there is made a liniment, very proper to annoint the region of the hucklebone, where the Sciatica is ſeated; and the ſmall of the backe, to allay the paine of the loins. I would not give counſell (as many writers doe preſcribe) for to put it in the concavitie or hole of a rotten tooth, and ſo to ſtop up the place cloſe

* He meaneth by *Cauterium κατακχαστικὸν, medicamente μετασυλκεστικὸν, or μεταποεστοτικὸν*, which draweth humors and the blond to the able and outward parts: a neceſſarie courſe to be taken in Atrophia, & namely after long diſeaſes, that the bodie may be equally nouriſhed.

A cloſe with wax, fot feare of that which might enſue therupon: for I have ſeene the fearfull ſequele of that experiment, in a man, who upon the taking of that medecine, threw himſelfe headlong from an high loft and brake his necke; ſuch intollerable pains he ſuſteined of the toothach: and no marveile, for doe but annoint the muffle or noſe of a bull therewith, it will ſet him on a fire and make him horne-mad: and being mingled with wine, if ſerpents (as they are moſt greedie of wine) chaunce to lap or licke thereof, it will cauſe them to burſt. And therefore I would not adviſe any to be annointed with it and honey of Athens incorporat togither; howſoever there be Phyſicians who ſet downe ſuch a receit. Certes, if I ſhould take in hand to particularize of the vertues that Laſer hath, beeing mingled with other matter in confections, I ſhould never make an end: But my purpoſe is to deale with ſimples only, wherein Natures worke is moſt ap-
B parent and evident to be ſeene; whereas in compoſitions, we go altogither by conjectures which many times deceive us: neither can a man bee aſſured of their operation; for who is able to obſerve the juſt proportion in thoſe mixtures, either of the contrarieties and repugnances, or the concord and agreement of the ingredients in Nature? But of this point I will write more at large hereafter.

Chap. xxiiii.

Of the nature and properties of Honey. Of honyed water or Mead called Hydromel. How it commeth to paſſe that the maxners and behaviours of men be altered by meat and viands. Of honyed wine named Melitites, and of Wax. Alſo,
C *againſt the abuſe in compoſition of medicines.*

HOney, were it not ſo common as it is, and every where to be had, would be as highly eſteemed and of as great price as Laſer. As for this drug, Nature hath framed and made it immediatly her owne ſelfe; but for the getting and working of Honey, ſhee hath created a living creature of purpoſe, as wee have alreadie ſaid: by means whereof, wee have this cœleſtiall liquor, which ſerveth for an infinit number of uſes, conſidering how often it entreth into mixtures and compoſitions. And firſt to ſpeake of that cereous ſubſtance Propolis, which (as it hath been ſhewed alreadie) offereth it ſelfe firſt to bee ſeene at the very entrie of the Bee-hive, theſe vertues medicinable it hath; namely, to draw foorth all pricks, thorns, and what offenſive thing
D ſoever ſticketh within the fleſh of a bodie; to diſſolve and diſſipat all tumours and ſwelling bunches, to concoct and mollifie any hardneſſe; to aſſuage the pains of ſinews; and finally, to incarnat, heale up, and skin any deſperat ulcers.

As touching Honey it ſelfe, of this nature verely it is, That it will ſuffer no dead bodies to putrifie; notwithſtanding it be of a ſweet and pleaſant taſt, far from any ægreneſſe, and contrarie to the nature of ſalt: for the throat, the kernels of each ſide thereof called the Tonſils or Amygdals; for the ſquinancie, and all the accidents befalling to the mouth; as alſo for the drineſſe of the tongue through extremitie of heat in fevers, it is the moſt ſoveraigne thing in the world. Honey boiled, is ſingular for the inflammations of the lungs, and for the pleureſie: alſo it cureth the wounds inflicted by the ſting or teeth of Serpents; and helpeth thoſe who have eaten venomous
E muſhroms. Being taken in dulcet or honeyed wine, it cureth thoſe that lie of a palſie: although indeed the ſaid honeyed wine alone hath many gifts and properties by it ſelfe. Honey, togither with oyle of Roſes, dropped into the ears, cureth their ſtinging and paine. Good it is alſo for to kill lice and ſuch like vermin in the head, and to rid away nits: where, note by the way, that if honey be deſpumed, that is to ſay, skummed and clarified, it is evermore the better for any uſe. Howbeit, the ſtomacke it puffeth up and maketh to ſwell with ventoſities: it engendreth and encreaſeth cholerique humours, and taketh away appetite to meat: yea and ſome are of opinion, That being uſed ſimply alone, and not compounded with other things, it is hurtfull to the eyes: and yet others give counſell, to touch and annoint the corners of the eyes therewith, when they be
F exulcerat. Touching the materiall cauſe whereof honey is engendred, the manner how, the divers ſorts, the countries where it is made, the price alſo and value, with the ſundry proofes and trials thereof, I have written alreadie once in my treatiſe of Bees; and a ſecond time in my diſcourſe of the nature of Floures: for ſo the order and courſe of this my worke forced me to treat diſtinctly of thoſe matters; which, they that be deſirous to know exactly the nature of ſimples, may put togither and mingle againe at their pleaſures. By the ſame reaſon alſo, ſince we are en-

tred into the vertues and operations of Honey, I muſt of neceſſitie handle and declare the quali- G
ties of Hydromel or Honyed-water, ſo neare a dependant thereunto.

Of which there be two kinds: The one is freſh and new made in haſt upon occaſion, and preſently uſed: the other is kept and preſerved. As touching the former Hydromel, if it be made as it ſhould be, of deſpumed and clarified honey, it is of ſingular uſe in that exquiſit and ſparie diet fit for ſicke perſons, and namely in meats of light digeſtion; ſuch as is a thin gruell made of naked frumentie waſhed in many waters: alſo to be joyned with reſtoratives, for to recover the Patients ſtrength much enfeebled. Moreover, good it is for the mouth and the ſtomacke, to mitigat the fretting humors ſetled and bedded therein; and to coole the extremitie of heat: for I find in good authors, that to eaſe and mollifie the belly, it is better to be given cold than otherwiſe: as alſo that it is a proper and convenient drinke for thoſe who chill and quake for cold: likewiſe for H
ſuch as be heartleſſe and have ſmall or no courage at all, whom thoſe writers call *Micropſychos.

*Some read μικρόσφυκτους out of *Dioſcor.* having a faint and weake pulſe.

Moreover, there is a reaſon rendred, full of infinit ſubtilitie, and the ſame fathered firſt upon *Cato*, Why the ſame things ſeem not alwaies bitter or ſweet alike in every mans taſt? for he ſaith, that this diverſitie proceedeth from thoſe little motes or *bodies that goe to the making of all things: whiles ſome of them be ſmooth, others rough & rugged; ſome cornered, others round: in ſum, according as they be more or leſſe reſpective and agreeable to the nature of each man. This is the cauſe, that thoſe perſons who are over-wearied or exceeding thirſtie, be more cholerique and prone to anger. Good reaſon therfore, that ſuch aſperitie of the ſpirit, or rather indeed of the vitall breath, ſhould be dulced and appeaſed, by the uſe of ſome ſweet and pleaſant liquor, which may lenifie the paſſage and mollifie the conduits of the ſaid ſpirit, that they doe not cut, I
race, and interrupt it going in and out in drawing or delivering the wind. And in very truth, everie man may find by experience in his owne ſelfe, how meat and drinke doth moderat & appeaſe anger, ſorrow, heavineſſe, and any paſſion or perturbation of the mind whatſoever. And therefore thoſe things would bee obſerved, which make not onely to the nouriſhment and health of the bodie, but alſo ſerve for to rectifie and reforme the manners and demeanour of the mind.

*Some read μικρόσφυκτους out of *Dioſcor.* having a faint and weake pulſe.
* *Corpuſculis rerum.*

Now to returne againe unto our Hydromel or Honyed-water, very good (by report) it is for the cough: and being taken warme, it provoketh to vomit: put oile thereto, and it is ſingular againſt the poiſon of Ceruſe or white lead. A countrepoiſon alſo it is and a preſervative to ſuch as have eaten Henbane and Dwale, eſpecially taken with aſſes milke, as I have ſaid heretofore. Inſtilled into the ears, or powred into the fiſtulous ſores of the ſecret parts, it is thought to be excel- K
lent. Incorporat with the crums of ſoft bread, and reduced into the forme of a peſſarie, and ſo put up, it is ſingular for the infirmities of the naturall parts of women: and beeing applied accordingly, it taketh down all ſodaine ſwellings [occaſioned by windineſſe;] cureth diſlocations; and in one word, doth mitigat all pains. Thus much of Hydromel new made: for our moderne Phyſicians have utterly condemned the uſe of that which is kept untill it be ſtale. And this they generally hold, That it is not ſo harmeleſſe as water, nor ſo ſolid and powerfull in operation as wine. Howbeit, let it be long kept, it turneth into the nature of wine, and (as all writers doe accord) then is it moſt hurtfull to the ſtomacke, and contrarie to the ſinews.

As for Honied-wine, the beſt and moſt holeſome is alwaies that, which is made of the oldeſt wine, that is hard: and indeed with it, you ſhall have it to incorporat very eaſily; which it will ne- L
ver doe with any that is new, and ſweet: and being made of greene, harſh, or auſtere wine, it doth not fill and charge the ſtomacke, no more it doth being made of boiled honey; and engendreth leſſe ventoſities; which is an uſuall thing with honey. This honyed wine bringeth them to appetite of meat, who have loſt their ſtomacke. Taken actually cold, in many it looſeneth the belly; but being hot, it ſtaieth and bindeth the ſame. The honyed wine is very nutritive and breedeth good fleſh. Many have held out a long time freſh and luſtie in their old age, with the nouriſhment of honyed wine alone, without any other food: whereof wee have one notable example of *Pollio Romilus*, who beeing above a hundred yeares old, bare his age paſſing well: whereat the Emperour *Auguſtus* of famous memorie, marveiled much; and being upon a time lodged as a gueſt in his houſe, he demaunded of him, What means he uſed moſt ſo to maintaine that freſh M
vigor both of bodie and mind? unto whome *Pollio* anſwered, By uſing honyed wine within, and oile without. *Varro* ſaith, that the yellow jaundiſe was called a *Kings-diſeaſe, or a ſickneſſe for a King, becauſe it was cured ordinarily with this honyed wine, called Mulſe.

* *Regius morbus.*

As touching another kind of Honyed-wine, named Melitites, how it is made of Muſt, or new

wine

A wine and honey togither, I have declared sufficiently in my treatise of wines. But I suppose there hath been none of this sort confected these hundred yeares past and above, for that it was found to be a drinke which bred ventosities in the stomacke and other inward parts. Howbeit, the manner was in old time, to prescribe it for to bee given in agues, to make the bodie soluble; provided alwaies, that it had the due age: also to those who lay of the gout: to such likewise as had weake and feeble sinews: and to women who abstained altogither from meere wine.

Next after Honey, the treatise of Wax (which is correspondent to the nature of honey) by good order followeth. Concerning the originall working and framing thereof, the goodnesse, the severall kinds according to divers countries, I have written in convenient place. This is ge-
3 nerally observed, that all sorts of wax be emollitive, heating, and incarnative; but the newer and
B fresher that they are, the better they are thought to be. Wax taken inwardly in a supping or broth, is singular for the bloudie flix and exulceration of the guts: so be the very honey-combs given in a gruell made of frumentie, first parched and dried at the fire. Contrarie it is to the nature of milke: for take ten grains of wax, made in small pills of the bignesse of millet corns, in some convenient liquor, they will not suffer the milke to cruddle in the stomacke. If there bee a rising or swelling in the share, the present remedie is to sticke a plastre of white wax upon the groine. Moreover, to reckon up and descipher the sundrie uses that wax is put unto in matters of Physicke, as it is mixed with other things, it is no more possible for a Physician, than to particularize of other simples and of their holesome vertues, according as they enter into many compositions: which proceed all (as I have said) from the wit and artificiall invention of man: for wee
C never find, that Cerots, Cataplasms, Emollitives, Plastres, Collyries or Eye-salves, Antidotes or Preservative confections, were ever of our great mother dame Natures making; who indeed is the divine worke-mistresse of all things: these are the the devises of Apothecaries, nay they are rather tricks proceeding from avarice and covetousnesse. As for Nature, shee hath made nothing unperfect, her workes be absolute all and accomplished in their essence: ordained hath shee no compounds, unlesse it be verie few, wherein shee proceedeth upon good cause and reason, and goeth not by blind aime and doubtfull conjectures: as namely, when according to her rule and order, shee doth incorporat some things of a drie constitution and substance, with a liquor, that they may pierce and enter better within the pores of the bodie: or els when shee giveth consistence to liquid matters by some bodily substance, which may unite and knit them to-
D gether. To goe about for to compasse the vertues of every simple ingredient into these compositions curiously by scruples and grains, savoureth of impudencie rather than a worke grounded upon humane conjecture. For mine owne part, I have nothing to doe with these drugs and far-fet wares that come from India and Arabia: I meddle not (I say) with these medicinable spices brought out (as it were) of another world: These simples growing so farre off in such remote countries, please me not, neither doe I thinke them meet for to cure our maladies: they were never brought forth by Nature for us; no nor for them neither, where they grow: otherwise they were not such fooles (I trow) as to sell and passe them away as they doe. Buy them, and spare not, for sweet pomanders, perfumes, & delicat ointments: yee may buy them also (if you please) upon a superstitious devotion for the worship of gods; for that now we cannot sacrifice, pray, and serve
E God (forsooth) without Frankincense and Costus. And that our daintie ones and effeminat persons should be the more ashamed of themselves, I will the rather shew and proove, That we may both preserve and recover our health well enough without these exoticall and forein drugs: and that ech region is furnished sufficiently with home-physick of their owne. But now, since we have taken so much paines as to collect the medicinable vertues of guirland-flours, of pot-hearbs also, garden-woorts, and sallad hearbs, How may I for verie shame leave out the properties of corne and graine, serving for Physicke? And therefore in this place it shall bee well done, to discourse of them likewise.

Chap. xxv.

F ☞ *The medicinable vertues and properties of corne and graine.*

FIrst and foremost this is holden for certain, That they be the most ingenious and wisest creatures of all others, which live of corne. The grains of the fine blanchet wheat Siligo, being burnt, brought into powder, and applied with Amminien wine in manner of a liniment, do

reſtraine the flux of humors to the eyes. Alſo the corns of the ordinarie wheat Triticum, being parched or roſted upon a red hot yron, are a preſent remedie for thoſe who are ſcortched and findged with nipping cold. The meale of the ſaid wheat ſodden in vinegre, and applied as a cataplaſme, helpeth the contraction and ſhrinking up of the ſinews: but wheat brans, with oile of roſes, drie figgs, and ſebeſten ſodden togither, make a collution, the gargarizing wherewith, is good for the inflammation of the Tonſils or Amygdales, and to cure all the accidents of the throat. *Sextus Pompeius*, who in his daies was one of the principall peeres of high Spaine, and a ſonne behind him, who afterward was lord Pretour of Rome, ſitting upon a time before his barne-dores to ſee his corne winowed, was ſurpriſed ſodainly with a fit of the gout, and whether it were by chaunce, or in a rage for the extremitie of paine, thruſt his legs above the knees into the heape of wheat lying thereby: but finding his legs mightily dried hereby, and himſelfe wonderfully eaſed of his paine by that means, hee never uſed any other remedie afterwards, but ſo ſoone as he felt a fit of his gout comming, hee plunged his feet and legs into a heape of wheat. Certes wheat is ſuch a deſiccative, that it will draw and drie up the wine or any other liquor in a barrell which is buried within it. Moreover, the beſt experienced Chirurgians in the cure of ruptures, affirme, That there is nothing better, than to lay the chaffe of wheat or barley hot unto the grieved place; and to foment the ſame with a decoction wherein it was ſodden.

Vide Galen, lib. 1. de Naturalibus facultatibus.

As for the bearded wheat Far, there is a certaine worme breeding in it like to a moth or the grub that eateth wood, which is ſingular good to make rotten teeth to fall out of the head; for if the ſame be lapped within wax, and ſo put into the hole of the faultie tooth, it will drop out: or if the ſound teeth be but rubbed therewith, they will ſhed and fall forth of the head.

Touching the graine Olyra, we have ſaid alreadie that it is called alſo Arinca. The Ægyptians make thereof a certaine medicinable decoction or gruell, which they call Athara, paſſing good for young babes; yea and it ſerveth to bath and annoint elder folke withall.

Barly meale either raw or boiled, doth diſcuſſe and reſolve, aſſuage and ripen, all impoſtumes engendred either by way of gathering and collection of humors, or by ſome deflux and rheumaticke deſcent. The ſame otherwhiles is ſodden in honyed water, or els with dried figs: but for the pains of the liver, it had need to be boiled with Oxycrate, *i.* water and vinegre togither, or els with wine. But when the caſe ſtandeth ſo, that the tumour muſt bee partly diſſipated, and partly brought to maturation; then it is better that it be incorporat in vinegre, or in the lees of vinegre, or at leaſt waies in ſodden peares or ſodden quinces. Being tempered and medled with honey, it is very good for the biting of the cheeſlips or many-feet wormes, called Multipedes: but for the ſting of ſerpents, it is better to mix it with vinegre; as alſo to keepe ſores from feſtering and rankling: but in caſe it be needfull and requiſit to cleanſe them from ſuppurat matter therein gathered, then it would be applied with vinegre and water, with roſin alſo and gall-nuts added thereto. For inveterat and old ulcers, to bring them to maturation, it is laid too with roſin: for to ſoften hard tumors, it is uſed either with pigeons dung, or with drie figgs, or aſhes. Beeing applied with Poppie or Melilot, it is ſingular for the inflammation of the nerves, of the guts and ſides: alſo for the paines of mens privie parts: or when the fleſh is departed from the bone. Incorporat with pitch, and the urine of a boy not yet undergrowne nor fourteen yeers of age, it is a proper medicine for the ſwelling kernels named the Kings evill: with oile and Fenigreeke, it helpeth the tumors of the midriffe and precordiall parts: or in caſe the fever be buſie with the Patient, then it muſt be uſed with hony or old greaſe. But if thoſe ſwellings tend to maturation, then wheat meale is commonly more lenitive, and aſſuageth paine better. The ſame reduced into a liniment with the juice of Henbane, is good for the nerves; but with honey and vinegre, it taketh away the red pimples and ſpots appearing in the skin, called Lentils.

Spelt.

Touching * Zea, whereof is made the ordinarie frumentie as I have ſaid: the meale of it is counted better in operation than the other of barley, but that of the three-month corne is more moiſt and emollative. Tempered with red wine, and ſo applied warme, it is commended for the pricke of Scorpions: alſo for them that reach and ſpit up bloud: and all accidents happening to the throat and windpipes: but with goats ſewet or butter, it is good for the cough. The floure or meale of Fenigreeke, is the ſofteſt of all other: it healeth running ulcers, it ſcoureth dandruffe or skales in any part of the bodie, it appeaſeth and aſſuageth the pains of the ſtomacke, it cureth the maladies incident to the feet and paps, if it be ſodden with ſal-nitre and wine, and ſo applied accordingly.

The

A The meale of Yuraine or Darnell, doth cleanſe old ulcers & gangrenes more than any other. Tempered with raddiſh, ſalt, and vinegre, it cureth ring-wormes, tettars, ſhingles, and ſuch like: with Sulphur-vif or quicke brimſtome, it ſcoureth away the leproſie. Applied in a frontall to the forehead with Gooſe greaſe, it helpeth the head-ach. Boiled in wine with Pigeons dung & Line-ſeed, it digeſteth and bringeth to maturation the ſwelling kernels named the kings evill, and other biles which be long ere they gather to an head and doe ripen.

Of the ſundrie ſorts of Barley groats or groſſe meale called Polenta, I have ſaid ynough in my Treatiſe of corne, which did require alſo the diſcourſe of ſuch things as be made of corne. It differeth from Barly meale, in that it is torrefied or parched: in which regard it doth the ſtomack good. It bindeth and ſtaieth the flux of the bellie: it repreſſeth alſo and ſmiteth backe the flu-
B ſhing of humors, to the breeding of red and angrie tumors. It ſerveth for a liniment to the eyes, and eaſeth head-ach, if it be applied with *Mints, or ſome other cooling herbe. In like manner it cureth kibed heeles, and the wounds occaſioned by ſerpents: alſo it healeth burnes and skalds if it be laid too with wine: and in that ſort it keepeth them from bliſtering. If meale bee driven through a ſercer or boulter, and ſo reduced to flower, and afterwards made with dough or paſte, it is a great drawer of noiſome humors to the outward parts: which is the cauſe that being applied to ſuch places which looke dead and mortified, by reaſon of the bloud ſpread under the skin, it draweth out the ſame, ſo that the very linnen bands whet with they be lapped and rolled, become bloudie againe. But if wine cuit be joined therewith, the operation is more effectuall. Moreover, the ſaid flower is good to be laid unto the calloſities and cornes of the feet. For the fine flower of
C meale being ſodden with old oile and pitch, and applied ſo hot as the patient may abide it, doth wonderfully cure the ſwelling piles and all other greefes about the fundament. As touching the thick gruell or paps made with flower, it nouriſheth much, and cauſeth the bodie to ſeed well. The paſt made of meale, wherewith they uſe to glew Papyr, is ordinarily given warme to good effect, for the reaching and ſpitting of bloud.

*Cum Menta. rather *Melle*, i. honey, according to *Columella*: for Mints be hot.

As for Frumentie called Alica, it is a meere Romane invention, and not long agoe firſt deviſed: for otherwiſe the Greekes if they had knowne of it, would never have written as they did in the commendation of husked Barley named Ptiſana, rather than of it. And I thinke verely, that the uſe thereof was not taken up in the daies of *Pompey* the great, and therefore the followers and diſciples of *Aſclepiades* have left little or nothing thereof in writing. That it is a ſoveraigne and
D moſt holeſome thing, no man verely maketh doubt or queſtion; whether it be waſhed and ſo given in honied water, or whether it bee ſodden and ſo uſed in a thin ſupping, or boiled higher to the conſiſtence of a thicke gruell or pottage. The ſame for to ſtay the bellie, and ſtop a laske, is torrefied: and then afterwards ſodden with virgine-wax, as before I have ſhewed. But a peculiar vertue it hath by it ſelfe to reſtore thoſe that are conſumed and fallen away through a long and languiſhing ſickneſſe: and then it muſt be ordered thus, Take three cyaths of the ſaid Frumentie, ſeeth it in a ſextar of faire water over a ſoft fire gently, untill by little and little all the water bee conſumed: now after this imbibition, when that the Frumentie hath thus drunke up all the water, there muſt be added thereto a ſextar of Ewes milke or Goats milke, and in the end a little ho-
E ney. This the patient is to take for certain daies together. And in truth, ſuch a broth or ſupping is this, as there is not in the world a more ſoveraigne reſtorative for all colliquations and con-
F ſumptions whatſoever, nor that will ſooner ſet upon their feet againe thoſe who bee farre gone and ſpent that way.

To come now to Millet, it is a graine, which being torrefied aforehand for the purpoſe, ſtoppeth the laske, and diſpatcheth all collicke paines and torments of the bellie. Being fried and laid too hot in a bag, there is not a better thing for the greefe of the ſinewes, or to allay any other paine: for, moſt ſoft it is and lighteſt of all other, and nothing in the world retaineth heat ſo well. No marvell then if Millet bee uſed ordinarily in thoſe caſes, where heat is to doe good. To conclude, the meale or pouder thereof incorporat with tarre, is a ſingular plaiſter to bee laid upon ſores, occaſioned by the ſting of ſerpents or the pricke of the vermine named Multipeda.

As for Panicke, *Diocles* the Phyſician called it Mel-frugum. The ſame operations and effects it hath that Millet. Being taken in wine, it is good for the dyſenterie or bloudie flix. To ſuch tumors as need to evaporat and be reſolved, it is ſingular good for to bee applied hot, by way of fomentation. Sodden in Goats milke, and given twice a day to drinke, it bindeth the belly, and ſtaieth flux: and in that manner it aſſuageth the torments and wrings in the collicke.

Seſama

Seſama ſtamped or beaten into pouder, and ſo taken in wine, reſtraineth immoderat vomits. Reduced into a liniment, and ſo applied, it doth mitigat the inflammation of the ears, and cureth any burne or ſcalt place of the bodie. The ſame effects it hath when it is green and groweth in the field. Over and beſides, a cataplaſme made thereof, being boiled in wine, is good for ſore eyes. To be eaten, it is no holeſome meat for the ſtomacke: and more than that, it cauſeth a ſtinking breath. Howbeit, they hold it excellent to withſtand the venomous ſting of the Stellions, and the daungers that it may inferre: as alſo to heale the old cancerous and maligne ulcers, named Cacoëthe, *i.* Morimals. There is an oile made thereof, which as I have before ſhewed, is good for the eares. G

Touching Seſamoeides, which taketh that name of the reſemblance that it hath to Seſama, but that the graine thereof is bitter, and the leafe leſſe, and it groweth in gravellie grounds: The ſame being taken to drinke in water, purgeth chollericke humors. A liniment made of the ſeed, doth aſſuage the heat of S. *Anthonies* fire, and doth diſcuſſe and reſolve biles. And yet there is another Seſamoeides growing in Anticyra, which thereupon ſome doe call Anticyricon: otherwiſe much like it is to the hearbe Groundſwell, whereof I will ſpeake in place convenient. The graine or ſeed of this Seſamoeides is given in ſweet wine, as a purgative of chollericke and flegmatick humors; to the quantitie of as much as may be contained with three fingers: but to quicken the ſame, the Phyſicians uſe to put one Obole and an halfe of the white Ellebore-root or Neeſewort: which purgation they uſe in caſe of madneſſe, the melancholike diſeaſe, the falling ſickneſſe, and the gout. By it ſelfe alone, the weight of one dram is a ſufficient laxative, and dooth evacuat the bellie. H

The beſt Barley is that which is whiteſt. The juice of Barley boiled in raine water, is made up into certaine troſches, which is ſingular good to be either conveighed into the guts by way of clyſter, for the exulceration thereof; or els injected into the Matrice by the metrenchyte, for the ulcers therein. The aſhes of Barley burnt, are good in a liniment for burnes, for places where the fleſh is gone from the bones, for wheales, and ſmall pocks, and for the biting of the Hardiſhrew mouſe. The ſame with a little ſprinckling of ſalt, and ſome honey among, is counted a good dentifrice, to make the teeth look white, and the breath to ſmell ſweet. There is an opinion commonly received, That whoſoever uſe to eat Barley bread, ſhall not bee troubled with the gout of the feet. And they ſay, that if a man take nine Barley cornes, and with every one of them draw three imaginarie circles about a fellon with his left hand: and when he hath ſo done, throw them all into the fire, preſently it ſhall bee cured. There is an hearbe which the Greekes call Phœnicea, and our countreymen in Latine Hordeum *Murinum. This hearbe or weed being beaten to pouder, and taken in wine, is ſingular to bring downe the courſe of womens fleurs. I K

Hippocrates the famous Phyſician, hath made one *entire booke in the praiſe of Ptiſana, which is a groat made of Barley: but all the vertues and properties thereof are now attributed unto our Frumentie Alica, and that goeth away with all the commendation. *And yet a man may ſee how much more harmeleſſe it is than Alica. *Hippocrates* commended it onely for a ſupping, as being ſlipperie and eaſie to be taken, good to put away thirſt, not ſwelling in the bellie, paſſing quickly and eaſily through the bodie, and ſuch a kind of meat as might alone of all others be given twice a day in a fever to thoſe who were uſed to it: ſo far was he in opinion from them who would famiſh all diſeaſes, and cure them by *faſting and utter hunger. Howbeit, hee forbad to give it whole in ſubſtance to be ſupped off, and allowed nothing but the very ſimple juice and broth of Ptiſane or husked Barley: neither allowed he it in the beginning of an ague fit, ſo long as the feet continued cold, for during that time he would not admit ſo much as a thin potion thereof. Now beſides the Alica or Frumentie made of Zea, there is another which commeth of the common Wheat, more glutinous and better indeed for the exulceration of the wind pipes. L

As touching Amylum or ſtarch pouder, it dimmeth the eyeſight, & is hurtfull to the throat, and is nothing good to be eaten, contrarie unto the common received opinion. It ſtaieth the inordinat flux of the bellie, repreſſeth the rheume into the eyes, it healeth ulcers, and cureth puſhes, wheales, and blaines, and reſtraineth fluxes of bloud. It mollifieth the hardneſſe growing in the eyelids. To ſuch as caſt up bloud, it is uſually given in an egg. In paine of the bladder, halfe an ounce of Amylum made hot over the fire untill it ſiver, with one egg and as much cuit as will go into three egg ſhels, taken immediatly after the bath or hot houſe, is a ſingular remedie. Moreover, oatmeale ſodden in vinegre, taketh away moles and freckles of the skin. M

*It groweth indeed commonly upon new wals, although the name ſeemeth to come from *Mures*, *i.* Mice and Rats: rather than *Muri*, i. Wals.

*This booke goeth now under this title, *De ratione victus in morbis acutis.*

**Contrà, quanto innocentior eſt alica.*

*He glanceth at *Diatritos*, *i.* faſting three daies together.

The

A The very ordinarie bread, which is our daily food, hath an infinite number of medicinable faculties. Bread crums being applied with water and common oile, or els with oile of Roſes, doth mollifie impoſtumes: and with honied water aſſuageth any hardnes, wonderfully. Given in wine, 2 it is good to diſcuſſe and reſolve. It is of force alſo to bind and knit where need is, and ſo much the rather, if it be given with vinegre. Alſo it is ſingular againſt the ſharpe and eager flux of fleam, 3 which the Greekes call Rheumes: likewiſe for bruiſed places upon ſtripes or blowes: yea, and for diſlocations. And in very deed, for all theſe purpoſes, leavened bread, called of the Greekes Autopyros, *i.* downeright made, is better than any other. Moreover, a liniment thereof applied with vinegre, is good for whitflawes and the calloſities of the feet. Moreover, ſtale bread and biſket, ſuch as ſea-faring men doe eat, being ſtamped and ſod againe, is good to bind the bellie. For B ſinging men and choriſters who are deſirous to have a cleare voice, for ſuch alſo as bee ſubject to rheumes falling from the head, it is the wholeſomeſt thing in the world, to eat drie bread in the 5 beginning of meales. The Sitanian bread, that is to ſay, which is made of three months corn, being incorporat with honey, is a faire medicine to cure either the blacke prints remaining after ſtrokes, or the skalling and pilling of the face. White bread crums ſoked either in hote or cold water, yeeld unto ſicke men a meat of light digeſtion. The ſame being applied with wine, cureth ſwelled eyes. And ſo it healeth the breaking out in the head, eſpecially if drie Myrtles be put thereto. It is an ordinarie thing to preſcribe unto them that are given to ſhaking, for to eat faſting bread ſoked in water, preſently after they come forth of the bath. The perfume of bread burnt, taketh away all other evill ſmels that may be in a bed-chamber: and being put into thoſe Hip- C pocras bags through which wines be ſtrained, it altereth the naughtie taſt which they have.

Furthermore, even Beanes have their properties which ſerve in Phyſicke: for beeing fried all whole as they bee, and ſo caſt piping hote into ſharpe vinegre, they helpe the collicke and pangs of the bellie. Bruiſed and ſo eaten, or ſodden with Garlick, they be excellent good againſt coughs 2 that were thought paſt cure and remedileſſe; yea, and impoſtumes in the breaſt growne to ſuppuration: but the patient ought to feed thereof continually every day. Alſo if one chew them faſting, and ſo applie them to a fellon, they are thought paſſing good either to ripen or to diſcuſſe the ſame. Boiled in wine, and ſo laid too, they aſſuage the ſwellings of the cods and privie parts ſerving to generation. Beane floure ſodden in vinegre, doth ripen and breake all tumours: in like manner it diſſolveth blacke bruiſed bloud lying under the skin, and healeth burnes. *M. Varro* is of D opinion, That it is good for the voice. Beane ſtalkes and Beane cods burnt to aſhes, and ſo incorporat with old Swines ſeame, is good for the Sciatica and all inveterat paines of the ſinews. The very huskes of Beans alone ſodden to the thirds, doe ſtop the laske and running out of the bellie.

The beſt Lentils be they that are moſt tender, and aske leaſt ſeething: alſo ſuch as drink much water. Lentils verely do dim the eyeſight, and breed ventoſities in the ſtomack: but taken in meat they ſtaie the flux of the guts, and the rather if they bee throughly ſodden in raine water: but in caſe they be not fully boiled, they doe open the bellie and make the bodie laxative. The eſcares or rouſes remaining upon cauterized or bliſtered ſores, they breake and make to fall off: & thoſe ulcers which are within the mouth, they mundifie and cleanſe. Applied outwardly, they appeaſe the paines of all impoſtumes, eſpecially if they be exulcerat and full of chaps: and reduced into E a cataplaſme with melilote or a quince, they are ſingular for to repreſſe the flux of humors to the eyes: but for to keepe impoſtumes and tumors from ſuppuration, they are laid too with Barley groats, or the groſſe meale thereof torrefied. The juice of Lentils after they bee ſodden, is good for the exulcerations of the mouth, and the genetoires: likewiſe with an addition of oile Roſat or Quince, for the inflammation of the ſeat or fundament. But if the parts affected and exulcerat do require ſtronger and ſharper remedies, the ſame would be applied with the rind of a pomgranat, and a little honey put thereto. And to the end that the ſaid cataplaſme ſhall not drie quickly, they uſe to put thereto Beet leaves. Lentils ſodden throughly in vinegre, ſerve for a cataplaſm to be laid upon the ſwelling kernils called the kings evill, and other fell biles, whether they be ripe or in the way onely of maturation. Applied with honied water, they bee very good for any clifts F and chaps: but with the pill or rind of a pomgranat, for Gangrenes. In like manner, with Barley groats they be appropriat for the gout, the kidneies, the naturall parts of women, for kibes, and ſuch ulcers as be hardly brought to cicatrize. Thirtie graines of Lentils ſwallowed downe by way of Bole, are ſingular for the feebleneſſe and diſſolution of the ſtomacke. In dyſenteries or bloudie flixes, in the violent rage of chollericke humors which cauſe evacuations both upward and downe-

downeward, Lentils doe effectuat their operation much more, if they be ſodden in three waters. G
For which purpoſe alſo better it is to torrefie them firſt, and then to pound or beat them ſmall, that they may be given to the patient as fine as may be, either by themſelves alone, or els with a Quince, with Pears, Myrtle berries, wild Cichorie, blacke Beets or Plantain. Howbeit, note thus much, That Lentils are naught for the lungs, for head-ach, for all nervous parts, and the gall; and this ill propertie they have beſides, to keepe the patient from ſleepe. Being ſodden in ſeawater, they are good for puſhes and angrie wheales, for S. *Anthonies* fire, and the accidents that befall womens breaſts: but if they be boiled in vinegre, they diſcuſſe all hard tumors, and the kings evill. They that have but weake and bad ſtomackes, uſe verely to put Lentils to thicken their pottage and gruels, in ſtead of Barley groats, and find thereby much eaſe. If they be halfe ſodden in water, afterwards braied or ſtamped, and then let paſſe through a tamiſe, that the brans might be H
ſeparate from the reſt, they are thought very good for burnes: but then, within a while as the cure goeth forward, they muſt be applied with honey alſo put thereto. Finally, if they be ſodden in Oxycrat or water and vinegre together, they helpe the ſwelling bunch of the throat called Bronchocele.

There is a kind of mariſh or moorie Lentils [called Duckes meat] growing of it ſelfe in ſtanding waters. This hearbe is by nature refrigerative: in which regard, it ſerveth to make a liniment uſed for inflammations and hot impoſtumes: but principally for all manner of gouts, either alone or mingled with Barley groats. The ſame hath vertue to knit and conſolidat ruptures, when the bowels are fallen downe.

Moreover, there be wild Lentils, called by the Greekes Eleliſphacos, by others, Phacos. Theſe I
be lighter than the tame Lentils which are ſowed, bearing a ſmaller leafe, drier alſo, & more odoriferous than the other. Of which wild Lentils, there is a ſecond ſort, carying a ſtrong ſmell: inſomuch as the former kind is counted the milder. Theſe Lentils have leaves formed to the faſhion of quince leaves, but that they be leſſe and white, and commonly they are ſodden branch and all together. Their medicinable vertues bee, to bring downe the monthly ſickneſſe of women, to provoke urines, and to heale the wounds occaſioned by the venomous prick of the ſea-puffin or forke-fiſh. Now the nature of this fiſh is to benum and mortifie the place which is ſtrucken. Of theſe Lentils and Wormewood, there is a drinke made, good for the dyſenterie, or bloudie flix. The ſame taken with wine, draweth downe womens fleurs that ſtay upon them: but if their bare decoction bee drunke, it will ſtay them when they flow immoderatly. The hearbe alone applied K
outwardly, repreſſeth the overmuch bleeding of freſh wounds: it cureth the ſores occaſioned by the ſtinging of ſerpents. The decoction thereof in wine, doth mitigat the itching of the cods, if they be bathed and fomented therewith.

Our moderne Herbariſts in theſe daies, doe call that in Latine Salvia, *i.* Sange, which the Greekes name Eleliſphacos. An hearbe it is much reſembling Mints, of a grey and hoarie colour, and withall odoriferous. Being applied to the naturall parts of women, it fetcheth away the dead infant within the wombe: it riddeth the eares alſo and feſtered ulcers of thoſe wormes and vermine which breed therein.

Moreover, there is a kind of wild Cich peaſe, bearing leaves like to the other of the garden, and which be ſowed, ſave that their ſmell is ſtrong and unpleaſant. If a man feed largely of them, L
they ſtirre the bellie and move to the ſeege, they breed ventoſities, cauſe the collicke and wringing of the guts. Howbeit, if they be parched or torrified they are reputed the wholeſomer.

The Cichling or petie cich peaſe, is thought to be better and more wholeſome to the bellie than the other. But the meale as well of the one as the other, doth heale the running ſores and ſkals of the head: howbeit, the wild better than the reſt. Moreover, theſe ciches are taken to bee good for the falling ſickneſſe, the ſwellings of the liver, and the ſting of ſerpents. They procure womens tearmes, and provoke urine, and eſpecially the graine it ſelfe rather than the leafe. The ſame are ſingular for tettars and ringwormes, for inflammations of the cods, for the jaundiſe and dropſie. But all the ſort of them be hurtfull to the bladder and kidneies, eſpecially if they bee exulcerat. For gangrenes and thoſe morimall ulcers called Cacoëthe, they bee better, in caſe M
they be tempered with honey. Some there be, who for to be rid of all kind of werts, take as many cich peaſe as there be werts, and with every one of them toucha wert, and that, upon the firſt day after the chaunge of the Moone: which done, they tie the foreſaid peaſe or ciches in a little linnen rag, and fling them away backward behind them: and they are perſuaded that the werts

will

A will be gone by this meanes. But our Latine Phyſicians are of opinion, That the blacke ciches, which be called Ram-ciches, ſhould be well & throughly ſodden in water and ſalt: of which decoction they preſcribe unto the patient for to drinke two cyaths, in difficultie of making water, for to expell the ſtone, and rid away the jaundiſe. Their leaves and ſtalkes or ſtraw beeing ſodden in water over a good fire, yeeld a decoction, which beeing uſed as hot as may bee ſuffered, dooth mollifie the calloſities and hardneſſe growing about the feet: ſo doth a liniment alſo made of the very ſubſtance it ſelfe, ſtamped and applied hot.

The Columbine ciches ſodden in water, are thought to leſſen and ſhorten the ſhaking fits in tertian and quartane agues. The blacke cich peaſe being beaten to powder with halfe the quantitie of gall-nuts, and incorporat with ſweet wine cuit, called Paſſum, and ſo applied, cureth the
B ulcers of the eyes.

As touching Ervile, ſomewhat I have ſaid alreadie touching the properties thereof, when I made mention of it among other kinds of pulſe. And indeed the old writers have attributed as great power & vertue unto it as to the Colewort. Beeing laid too with vinegre, it cureth the hurts that come by the ſting of ſerpents, or the teeth of man and crocodile. There bee writers of approved authoritie, who affirme for certaine, That if a man doe eat Ervile faſting every day, it will diminiſh and waſt the ſwelling of the ſpleene. The meale of Ervile (as *Varro* reporteth) taketh away the ſpots and moles of any part of the bodie. And in truth, this pulſe is ſingular to repreſſe corroſive and eating ulcers: but above all, it is moſt effectuall in the ſores of womens breaſts. Applied with wine, it breaketh carbuncles. Being torrefied and incorporat with honey, and reduced into an electuarie or bole, and ſo taken as much as an hazell nut, it amendeth the ſuppreſſi-
C on or difficultie of voiding urine, diſſolveth ventoſities, openeth obſtructions, and helpeth other accidents of the liver, the provocations and proffers to the ſtoole without doing any thing: reviveth thoſe parts that miſlike and feel no benefit or nutriment of meat, which they call in Greek Atropha. In like manner it cureth ſhingles, ringwormes, and tettars, if it be firſt ſodden in vinegre ſo applied, and not remooved untill the fourth day. If it bee laid too with honey, it keepeth biles from ſuppuration. A fomentation made with the decoction therof in water, helpeth kibed heels, and the itch. And it is generally thought, That if a man drinke it every day next his heart upon an emptie ſtomack, it will make the whole bodie looke with a better and more lively colour. Contrariwiſe, the common opinion is, That it is not good to be eaten ordinarily as meat; for it mo-
D veth to vomit, troubleth the bellie, lieth heavie upon the ſtomack, and fumeth up into the head: it breedeth ach and heavineſſe in the knees. But if it have lien many daies in ſteepe, after that imbibition of water, it becommeth more mild, and is a moſt wholeſome provender for horſe and oxen. The greene cods of Ervile before they wax hard, if they bee ſtamped with their ſtalkes and leaves together, do colour and die the haires of the head *blacke.

As touching wild Lupines, they be inferior to thoſe which come of ſeed, in all reſpects, but onely in bitterneſſe. And verely there is not a thing more commendable, holeſome, and light of digeſtion than wild Lupines, if they be eaten drie. They are brought to be ſweet and pleaſant by hot aſhes or ſcalding water. Being eaten at meales ordinarily, they make a freſh colour & chearfull countenance. Bitter Lupines are very good againſt the ſting of the Aſpides. Drie Lupines,
E huſked and cleanſed from their skins, if they bee applied to blacke and mortified ulcers, full of dead fleſh, with a linnen cloth betweene, reduce them to a lively colour, and to quick fleſh again. The ſame ſodden in vinegre, diſcuſſe the kings evill, and the ſwelling kernils and impoſtumations behind the eares. The broth or collature of them being ſodden with rue and pepper, may be given ſafely, although it were in an ague, to thoſe that be under thirtie yeares of age, for to expell the wormes in the bellie. As for young children who have the wormes, it is good to lay Lupines to their bellie whiles they be faſting. All others are to take them torrefied, either by way of drink in a kind of wine cuit, or els in electuarie after the manner of a lohoch. The ſame do give an edge to the ſtomacke, and quicken the appetite to meat. The meale or pouder of Lupines wrought with vinegre into a dough or paſte, and ſo reduced into a liniment, and uſed in a baine or ſtouve,
F repreſſeth and keepeth downe all wheales and itching pimples which are readie to breake forth: and of it ſelfe is ſufficient to drie up ulcers. It bringeth to the native and lively colour all places blacke and blew with ſtripes. Medled with Barley groats, it aſſuageth all inflammations. For the weakeneſſe of the huske bone, the haunch, and the loines, the wild Lupines are counted more effectuall than the other. A fomentation with the decoction of theſe wild Lupines, maketh the skin more

* For that colour in old time was beſt eſteemed: and therby chaſt Matrones were knowne from wanton harlots, who affected yellow haire. *Alex. ab. Alex. cap* 18. *li.* 5.

more ſmooth and beautifull, taking away all ſpots and freckles. But if the ſame or the garden Lupines bee boiled to the height and conſiſtence of honey, they doe cleanſe the skin from blacke morphew and the leproſie. Theſe alſo if they be applied as a cataplaſme, doe break carbuncles: bring downe, or els ripen the ſwelling kernils named the kings evill, and other biles and botches, which of their nature be long ere they gather to head. Boiled in vinegre, they reduce places cicatrized, to their naturall colour, and make them look faire and white again. But if they be throughly ſodden in raine water, of the collature that paſſeth from them, there is made an abſterſive and ſcouring lie in manner of ſope, moſt excellent for to foment, gangrenes, ſmall pocks, and running ulcers. A drinke made thereof, is ſingular for the ſpleene: and if honey be put thereto, it provoketh womens fleurs, which make no haſt downeward. Take raw Lupines, ſtampe them with drie figs and vinegre into a cataplaſme, and applie them to the ſpleene, it is an excellent remedie. The root alſo ſodden in water, provoketh urine forcibly. Lupines boiled in water with the herb Chamæleon, doe cure the diſeaſes incident to ſheep and other ſuch ſmall cattell, if they do but drink of this decoction. Let them bee ſodden in the mother or lees of wine, or mingle both their decoctions therewith: they do heale the farſins, ſcab, and mange of all ſourefooted beaſts whatſoever. The fume of them as they burne, killeth gnats.

Concerning Irio, I ſaid before in the treatiſe of corne and pulſe, that it was like Seſama, and named by the Greekes Eryſimon, whereas the Gaules doe call it Velarum. This plant brancheth very much, and beareth leaves like to Rocquet, but that they bee ſomewhat narrower, and bringeth foorth ſeed reſembling that of Creſſes. This Irio taken with honey in forme of a lohoch, is excellent good for the cough, and thoſe who reach out filthie matter from their cheſt. Given it is for the jaundiſe, the diſeaſes of the loines, for the pleuriſie, the torments and wrings of the collicke, and the fluxes occaſioned by the debilitie and weakeneſſe of the ſtomacke. Applied in forme of a liniment, it is ſingular good for the inflammations behind the eares, for the cancerous ulcers alſo, and the ſymptomes thereto belonging. Laid to the cods with water, and otherwhiles with honey, it altereth their diſtemperature of heat, and the inflammations whereto they are ſubject. And ſoveraigne it is for infants. Likewiſe a cataplaſme made of it, with figgs and honey, is ſingular for the accidents and greeſes of the fundament, as alſo for the gout and paines of the joints. Taken in drinke, it is an effectuall countrepoyſon. It cureth thoſe who are ſhort winded. Applied outwardly with old hogs greaſe, it helpeth fiſtulous ſores, ſo there be care had that none of it goe into the ulcers.

As for the graine Horminum, it hath a ſeed reſembling Cumin, as I have ſaid before: otherwiſe it is like to *Porret: and groweth to the height of a ſpan or nine inches. Two kinds there be of it: whereof the one hath a blacker ſeed than the other, and ſomewhat long. *This hath power to provoke luſt, and is much uſed for the pin and web, for the perle alſo in the eye. The other hath a whiter ſeed and rounder. Both the one and the other if they be ſtamped, draw forth pricks and thornes out of the bodie, if a liniment be made of them alone, and applied with water. But a cataplaſme of the leaves with vinegre, or alone by themſelves, or elſe with honey, diſcuſſe and reſolve biles without ſuppuration. In like manner they diſpatch fellons, if they bee taken before they grow to any head, and generally, all tumors proceeding from ſharpe and hot humors. And thus much of graine.

* πράσον for πράσιν, i. Horehound.

* He confoundeth (as it ſhould ſeeme) the vertues of Horminum, i. Clarie the hearbe, with the graine called alſo Horminum.

A ſtraunge thing that Nature hath ſo ordained, That the very peſtilent weeds which plague corne, ſhould have their uſe in Phyſicke. For firſt and formoſt there is Darnell, which albeit *Virgill* tearmeth Infœlix, *i.* unhappie, yet if it be ground and ſodden in vinegre, and ſo applied, it cureth tettars and drie ſcabs joined with a great itch: and the ſooner doth it the deed, the oftener it is removed and changed. Darnell flower laid too, with Oxymell, cureth the gout and other pains. And to ſay a truth, the manner of this cure differeth from the reſt. For the preparing of which medicine, the ſaid flower muſt be ordered in this manner, and after this proportion: For every ſextar of vinegre, it ſufficeth to diſſolve therein two ounces of honey; take then three ſextars of this mixtion, and put thereto two ſextars of Darnell meale, ſodden to a thicke conſiſtence: which done, temper all together, and applie this cataplaſme to the greeved and pained members. The ſame meale draweth forth ſpils of broken and ſhivered bones.

A weed there is, called Miliaria, for that it killeth the graine Millet. Beat this to pouder, and mingle it with wine, then poure this drench with an horne downe the throat of labouring jades: they ſay it will cure their gouts.

As

A As for Bromos, [i. wild Otes] which the Greeks take for the ſeed of a certain ſpiked or eared weed, counted it is for one of the imperfections growing among corne, and may bee raunged with the kinds of Otes: for blade and ſtalke, it commeth neare to wheat; it beareth in the haw or head certain grains hanging downe, which reſemble ſmall locuſts; the ſeed is good to be uſed in thoſe cataplaſms, into which barley and ſuch like doe enter; the juice or liquor made of it, is ſingular for the cough. A weed there is which we named Orobanche, for that it choketh Ervile and other pulſe: ſome call it Cynomorion, for the reſemblance that it hath to the cullions and pizle or genitall member of a dog. It riſeth up in a ſmall ſtem without any leaves or blade: fattie it is and red: ſometimes it is eaten alone; otherwhiles it is ſerved up tender ſodden, between two diſhes, with other viands. Moreover, there doe engender in pulſe, certain little venomous
B vermins, who will pricke and ſting their hands who are employed in the plucking, yea and put them in daunger of their life: a kind they are of theſe Solifugæ or Solpugæ. The remedies for all theſe, be the ſame which are ſet downe againſt Spiders, and Phalangia.

Thus much as touching all kinds of graine, as far foorth as they concerne Phyſicke. But this moreover is to be noted, that of corne there be certaine drinks made; as namely, Zythus, in Ægypt; Cœlia and Ceria, in Spaine; Ale and Beere and many more ſorts, in Gaule and other pro-
3 vinces. Now the froth or barme that riſeth from theſe Ales or Beers, have a propertie to keepe the skin faire and cleare in womens faces. But for the operation that Ale and Beere hath in them who drinke therof, I meane to paſſe them over here; for I thinke it better to proceed to the treatiſe of wine: but firſt I will diſcipher the medicinable vertues of trees, and begin with the vine.

C

THE XXIII. BOOKE OF
D # THE HISTORIE OF NATVRE,
WRITTEN BY C. PLINIVS SECVNDVS.

The Proëme.

E THus far forth have we gone over the upper face of the earth, and ſhewed what medicinable vertues there be in all kinds of graine, as well corne as pulſe: as alſo what Phyſicke may be found in woorts and pot-hearbs: yea and in thoſe garden plants, which by reaſon of their faire floures and ſweet odours, ſerve mans turne for guirlands and chaplets. It remaineth now to ſpeake of Ladie Pomona and her gifts, who certes, commeth not behind dame Ceres with all her riches. And verely this nymph and goddeſſe Pomona, not content thus to protect, maintaine, and nouriſh under the ſhade of her trees, thoſe fruits of the earth above-named; but diſpleaſed rather and taking ſcorne, that ſuch plants which grow farther from the cope of heaven, and began long after trees to come up and ſhew themſelves, ſhould ſeeme to have ſo many vertues: hath likewiſe furniſhed the fruits hanging upon her trees, with their properties, and thoſe of no ſmall operation and effect in Phyſicke. And in truth, if we conſider and weigh the cauſe aright, ſhee it was that affourded to mankind the firſt food from thoſe
F her trees; inducing us thereby to lift up our eies & looke to heaven-ward: yea and ſhe giveth the world to underſtand, that if Ceres and Flora both ſhould faile, ſhee with her goods onely were able even ſtill to ſuſtaine and feed us ſufficiently. And to begin with the Vine, which ought by right to be raunged in the higheſt ranke of all thoſe plants that beare the name of Trees: this bountifull Ladie not ſatisfied herein, that ſhee had done pleaſure unto man in furniſhing him with noble perfumes, odors, and delicat

ointments, by means of the grape verjuice, the vine floure Oenanthe, and namely the wild vine Massaris in Africke (according as I have discourſed more at large herctofore;) hath therefore beſtowed upon vines thoſe medicinable vertues in greateſt meaſure, and withall uſed theſe remonſtrances unto men in this manner: Call to mind (quoth ſhee) how many benefits and pleaſures thou receiveſt at my hands; Who is it but I, that have brought foorth wine, that ſweet juice of the grape? Who but I, have given thee Oile, that daintie liquor of the Olive? from me, come Dates and apples: from me thou haſt all fruits of ſuch varietie, that unpoſsible it is to number them. Neither doe I deale by thee as dame * Tellus doth, who beſtoweth nothing upon thee without labour and ſweat of thy browes; nothing (I ſay) but before it doth thee any good, requireth tillage by oxe and plough, thraſhing with ſtaile upon the floore, or trampling of beaſts feet upon the mow, and then the milſtones to grind it: ſuch adoe there is, and ſo long a time firſt, before thou canſt enjoy the benefit thereof for thy food. But contrariwiſe, whatſoever commeth from me, is readie at hand; there needs no intreating of the plough, nor any great labour and induſtrie to have and enjoy my fruits; for they offer themſelves of their owne accord: yea and if thou thinke much of thy pains to climbe, or to put up thy hand and gather them, loe they are readie to drop downe and fall into thy mouth, or els to lie under thy feet. See how good and gracious Nature hath been unto us herein, and how ſhe hath ſtroven with her ſelfe, Whether ſhe ſhould profit, or pleaſure, man more! and yet I take it, that ſhe affected Commoditie rather than Delight.

* The Earth.

For to come unto the vertues and properties of the vine, The very leaves and tender burgeons thereof, applied with barley groats, doe mitigat the paine of the head, and reduce all inflammations of the bodie to the due temperature. The leaves alone of the vine, laid unto the ſtomacke with cold water, allay the unkind heats thereof: and with barley meale, are ſingular for all gouts and diſeaſes of the joynts. The tendrils or young braunches of the vine being ſtamped and applied accordingly, drie up any tumors or ſwellings whatſoever. Their juice injected or poured into the guts by a clyſtre, cureth the bloudie flix. The liquor concreat (which is in manner of a gum iſſuing from the vine) healeth the leprie and all foule tettars, ſcabs, and manges, in caſe the parts affected were prepared and rubbed before with ſalnitre. The ſame liquor or gum is likewiſe depilatorie; for if the hairs be often annointed with it and oile togither, they will fall off: but the water eſpecially that ſweateth out of greene vine braunches as they burne, hath a mightie operation that way, inſomuch as it will fetch off werts alſo. The drinke wherein young vine tendrils have lien infuſed, is good for thoſe who reach up and ſpit bloud; as alſo for women who being newly conceived and breeding child, have many ſwawms come over their heart, and be eftſoons ſubject to faintings. The vine barke or rind, likewiſe the dried leaves, ſtaunch the bleeding in a wound, yea and doe conſolidat and heale up the wound it ſelfe. The juice drawne out of the white vine beeing ſtamped greene, and frankincenſe togither, take away ſhingles, ringworms, and ſuch like wildfires, if it be applied thereto. The aſhes of the vine-ſtocke, vine-cuttings, and of the kernels and skins of grapes after they be preſſed, applied with vinegre unto the ſeat or fundament, cure the piles, ſwellings, fiſſures, chaps, and other infirmities incident to that part: but incorporat with oile-roſat, Rue, and vinegre, they helpe diſlocations, burns, and the ſwelling of the ſplene. The ſame aſhes ſtrewed with ſome aſperſion or ſprinkling of wine, upon S. Anthonies fire, without any oile, doe cure the ſame: as alſo all frets and galls between the legs, and beſides eat away the haire of any place. The aſhes of vine-cuttings, beſprinkled with vinegre, are given to drinke for the diſeaſes of the ſplene; ſo as the Patient take two cyaths thereof in warme water, and when hee hath drunke it, lie upon the ſplene ſide. The verie ſmall tendrils of the vine whereby it climeth, catcheth, and claſpeth about any thing, being punned and taken in water, ſtaieth and repreſſeth vomiting in thoſe, whoſe ſtomacks uſe ordinarily to be keckliſh and ſoon to overturne. The aſhes of vines tempered with old hogs greaſe, is ſingular to abate ſwellings, to cleanſe fiſtulous ulcers firſt, and ſoone after to heale them up cleane: likewiſe for the paine of ſinews proceeding of cold, and for contraction and ſhrinking of the nerves: alſo for bruiſes, being applied with oile. Moreover, they eat away all excreſcenſe of proud fleſh about the bones, being tempered with vinegre & nitre: and laſt of all, mixed with oile, they heale the wounds made by ſcorpions or dogs. The aſhes of the vine-barke alone, cauſe the haire to come againe in a burnt place.

How grape verjuice ſhould be made, when the grapes are young and nothing ripe, I have ſhewed in the treatiſe of Perfumes and Ointments. It remaineth now to diſcourſe of the medicinall vertues thereof: and firſt to begin withall, It healeth all ulcers that happen in moiſt parts, and namely thoſe of the mouth, Tonſils or Almond-kernels on either ſide of the throat, and of the privie members: the ſame is ſoveraigne for to clarifie the eye-ſight: it cureth the aſperitie and roughneſſe of the eye-lids, the fiſtulous ulcers in the corners of the eyes, the clowds or filmes that ſhadow and cover the ſight, the running ſores

in

A *in any part of the bodie whatsoever: the corrupt and withered cicatrices or skars, and the bones charged with purulent and skinnie matter. Now if this verjuice be too tart and egre, it may bee delayed with honey or wine-cuit: and so it is good for bloudie fluxes, and the exulceration of the guts, for those who reject and reach up bloud, and for the squinance.*

Next after the wine verjuice Omphacium, I cannot chuse but write of Oenanthe, which is the floure that wild vines doe beare, whereof I have alreadie made mention in my discourse of Ointments. The best Oenanthe is that of Syria, especially along the coasts and mountains of Antiochia and Laodicea. That which groweth upon the white vine, is refrigerative and astringent: being powdred and strewed upon wounds, it doth verie much good: applyed as a liniment to the stomacke, it is exceeding comfortable. A proper medicine it is for the suppression of urine, the infirmities and diseases of the liver,

B *the head-ach, the bloudie flix, the imbecilitie of the stomacke, and the loosenesse proceeding from it: also for the violent motion of cholerique humours proceeding upward and downward. The weight of one obolus thereof taken with vinegre, helpeth the loathing that the stomacke hath to meat, and procureth appetite. It drieth up the running scalls breaking out in the head: and most effectuall it is to heale all ulcers in moist parts, and therefore cureth sores in the mouth, privie members, and the seat or fundament. Taken with honey and saffron, it knitteth the belly. The skurfe and roughnesse of the eye-lids it doth cleanse and make them smooth: it represseth rheume in waterie eyes. Given in wine to drinke, it comforteth and confirmeth feeble stomacks; but in cold water, it staieth the casting and reaching up of bloud. The ashes thereof is much commended in collyries and eye-salves: also for to mundifie filthie and ulcerous sores; to heale likewise whitflawes rising at the naile roots, and either*

C *the going away of the flesh from them, or the excrescence thereof remaining about them. For to bring it into ashes, it must bee torrified in an oven, and so continue untill the bread be baked and readie to bee drawne.*

As for Massaris, or the Oenanthe in Africke, it is employed onely about sweet odors and pomanders: and both it, as also other floures, men have brought into so great name, by making hast to gather them before they could knit to any fruit: so inventive is mans wit, and so greedie to hunt after novelties and straunge devises.

Chap. I.

D *The medecines which grapes fresh and new gathered doe yeeld. Of vine braunches and cuttings: of grape kernels, and the cake remaining after the presse. Of the grape Theriace. Of dried grapes or Raisins. Of Astaphis: of Staphis-acre, otherwise called Pituitaria. Of the wild vine Labrusca: of the wild vine both white and blacke. Of Musts or new wines. Of sundrie kinds of wine, and of Vinegre.*

E OF grapes that grow to their ripenesse and maturitie, the blacke are more vehement in their operation than the white: and therfore the wine made of them is nothing so pleasant: for in very truth, the white grapes bee sweeter far, by reason they are more transparent and cleare, and therefore receive the aire into them more easily. Grapes new gathered doe puffe up the stomacke and fill it with wind; they trouble also the belly, which is the cause that men are forbidden to eat them in fevers, especially in great quantitie; for they breed heavinesse in the head, and induce the Patient to sleepe overmuch, untill he grow into a lethargie. Lesse harme doe those grapes, which after they be gathered hang a long time: by which means they take the impression of wind and aire, and so become holesome to the stomacke and to any sicke person; for they doe gently coole and bring the Patient to a stomacke againe. Such grapes as have been condite and preserved in some sweet wine, are offensive to the head and fume up into the brains. Next in request

F to those abovesaid, which have hanged a long time, be such as have been kept in chaffe: for as many as have lien among wine-Marc, or the refuse of kernels & skins remaining after the presse, are hurtfull to the head, the bladder, and the stomack: howbeit they do stop a laske, and nothing is there better in the world for those that doe cast and reach up bloud: and yet those grapes that have ben kept in Must or new wine, are much worse than such as have lien in the Marc aforesaid.

Moreover, wine-cuit, if they have come into it, maketh them hurtfull and offenſive to the ſtomacke. But if they muſt needs be preſerved in ſome liquor, the Phyſicians hold them moſt holeſome which have been kept in raine water, although they be leaſt toothſome: for they do the ſtomacke a great pleaſure in the hot diſtemperature thereof; they be comfortable when the mouth is bitter, by occaſion of the regurgitation of choller from the liver and the burſe of the gall; they give great contentment alſo in bitter vomits; in the violent and inordinat motion of cholerique humors raging upward and downward; as alſo in caſe of dropſie, and to thoſe that lie ſick of burning fevers. As touching grapes preſerved in earthen pots, they refreſh and ſeaſon the mouth which was out of taſt: they open the ſtomacke, and ſtir up the appetite to meat. Howbeit this inconvenience they bring with them, That they are thought to lie more heavie in the ſtomacke, by reaſon of the breath and vapour which exhaleth from their kernels. If hens, capons, cocks, and ſuch like pullen, be ſerved amongſt their meat with the flours of grapes, ſo as they once taſt and eat therof, they will not afterwards pecke or touch any grapes hanging by cluſters upon the vine. G H

The naked braunches and bunches whereupon there were grapes, have an aſtrictive vertue; and indeed more effectuall that way be ſuch as come out of the pots aboveſaid. The kernels or ſtones within the grapes, have the ſame operation: and in very truth, theſe be they and nothing els, whereby wine cauſeth head-ach. Being torrified and beaten to powder, and ſo taken, they be good for the ſtomacke. Their powder is uſually put into the pot in manner of barley groats for to thicken broth and ſuppings, which are ordained for them who have the bloudie flix, who are troubled with a continuall looſeneſſe following them by occaſion of the imbecillitie of the ſtomacke; and for ſuch as are readie to keck and heave at every little thing. Their decoction ſerveth very well, to foment thoſe parts which are broken out and given to bleach and itch. The ſtones themſelves are leſſe hurtfull to the head or bladder, than the little kernels within. The ſame being driven into powder, and applied with ſalt, are good for the inflammation of womens breaſts. The decoction thereof, whether it be taken inwardly, or uſed by way of fomentation, helpeth as well thoſe who have gone a long time with a dyſenterie, or bloudie flix, as them who through imbecillitie of ſtomacke, doe ſcoure and purge downward continually. I

The grape Theriace, whereof we have written in due place, is good to be taken as a countrepoiſon againſt the ſting of ſerpents: And it is a common received opinion, that the burgeons and braunches of that vine, ſhould likewiſe be taken inwardly as meat, and applied outwardly for the ſame purpoſe: as alſo that both wine and vinegre which is made of them, is of ſingular operation to the ſame effect. K

The dried grape or raiſin, which they call Aſtaphis, would trouble the ſtomacke, belly, and entrails, but for the kernels that are within the ſtones, which ſerve as a remedie to prevent and cure thoſe inconveniences; which beeing taken forth, raiſins be thought good for the bladder: but particularly for the cough, thoſe of the white grapes be the better. Soveraigne are they alſo for the windpipe and the reins: like as the ſweet cuit which is made therof hath a ſpeciall power and vertue againſt the Hæmorrhois alone, of all other ſerpents. A cataplaſme made of them, togither with the powder of Cumin or Coriander ſeed, applied to the cods, cureth their inflammation. Likewiſe, if they be ſtamped without their ſtones or kernels, togither with Rue, they are ſingular good for carbuncles and gouts: but before this cataplaſme bee laid to any ulcers, they ought beforehand to be bathed and fomented with wine. Applied with their ſtones, they heale chilblanes and bloudyfalls, yea and eaſe the paines and wrings which accompanie the bloudie flix. Of them boiled in oile, there is a liniment made, which being applied with the outward rind of a radiſh root and honey, helpeth gangrenes: but if there be Panace or Loveach added therto, the liniment cureth the gout, and confirmeth nails which be looſe. Being chewed alone with ſome pepper, they purge the head and the mouth. L

Aſtaphis agria, or Staphis, which ſome (though untruly) call Vva Taminia (for this is a ſeverall kind by it ſelfe, growing up with ſtraight blacke ſtalks, and carying leaves like to the wild vine Labruſca) beareth bladders or little cods more like than grapes, of a greene colour, and reſembling cich peaſe, within which is to be ſeene a three-cornered kernell: it waxeth ripe and begin-neth to chaunge colour and looke blacke, at vintage time; whereas wee know that the grapes of the Taminian vine be red: alſo we are aſſured, that Staphis-acre loveth to grow in ſun-ſhine places, but the Taminian grape no where but in the ſhade. The ſaid kernels I would not adviſe to be uſed for a purgation, conſidering the doubtfull event and daunger that may enſue of choking M

and

A and ſtrangulation: neither for to draw downe fleame and wateriſh humours into the mouth, for ſurely they be enemies to the throat and weaſin-pipe. The ſame, if they be done into powder, rid lice out of the head and all parts of the bodie beſides: which they doe the better and with more eaſe, in caſe there be Sadaracha or Orpiment among. In like manner, they kill the itch and the ſcabs. For the tooth-ach, they uſe to be ſodden in vinegre; for the diſeaſes alſo of the eares, for rheums and eating cankers of the mouth. The floure beaten into powder and ſo taken in wine, is ſingular for the biting and ſting of ſerpents: For I would not give counſell to uſe the ſeed, ſo exceeding hot it is and of ſo fierie a nature. Some call this hearbe Pituitaria, and apply it as a liniment to the ſores occaſioned by the biting of ſerpents.

As for the wild vine Labruſca, it carieth alſo a floure named in Greeke Oenanthe, whereof I
B have written enough before. The wild vine which the Greeks name Ampelos Agria, hath thicke leaves, and thoſe enclining to a white colour: the ſtalks or branches be divided by joints & knots, and the barke or rind is all over full of chinks and creveiſes: it beareth certain red grapes much like unto the berries wherewith they colour ſcarlet; which being ſtamped with the leaves of the ſame plant, and applied with juice of the owne, are good to cleanſe and beautifie the skin in womens faces; and beſides, doe helpe the accidents and griefs that may befall to the haunch, huckleboue, and the loins. The root boiled in water, and ſo taken in two cyaths of the * wine of the Iland Coos, doth evacuat waterie humors gathered in the belly, and by conſequence is thought to be an excellent drinke for them who are in a dropſie. And this is the plant, which in my judgement ſhould be that vine which commonly is called in Latine Vva Taminia, rather than any
C other. Vſed much it is for a countrecharme againſt all witchcrafts: and given it is to gargariſe onely with ſalt, thyme, and honyed vinegre or oxymell, to them that ſpit and caſt up bloud, with this caveat, To let none of it go down the throat: and therefore men feare to purge therewith, ſo dangerous it is thought to be. Another plant there is much like to this, called in Latine Salicaſtrum, for that it groweth in willow rewes: and albeit theſe two carrie divers and diſtinct names, yet they be of the ſame nature and propertie, and be uſed to the like purpoſes. Howbeit this Salicaſtrum is taken to be more effectuall of the twain for to kill the ſcab, skurfe, and itch, as well in men as in fourefooted beaſts, if it be bruiſed and applied with honyed vinegre.

* Much like to our Malvaſey.

There is a certain wild white vine, which the Greeks call * Ampeloleuce, ſome Ophioſtaphylon, others Melothron or Pſilothrum; ſome Archezoſtis or Cedroſtis, others Madon. This plant
D putteth forth long and ſlender twigs, parted and divided by certein joints or knots, & theſe climb up and claſpe whatſoever they meet withall. The leaves grow thick and full of tendrils or young burgeons, as big as Ivie leaves, divided and jagged in manner of other vine leaves. The root is white and big, like at the firſt to a radiſh; from which there ſpring certain ſhoots or ſions reſembling the buds of Aſparagus: theſe yong ſprouts ſodden & eaten with meat, purge both by ſeege and urine: the leaves and braunches be exulcerative, and will raiſe blifters upon the bodie; and therfore applied with ſalt as a liniment, they be good for corroſive ulcers, gangrens, wolves, & the old morimall ſores in the legs. The ſeed or grain thereof is contained within certain beries hanging down thin here and there in ſmall cluſters, which yeeld a certaine red juice or liquor at the firſt, but afterwards it turneth to a yellow ſaffron colour: this know the curriours well who dreſſe
E skins, for they uſe it much. There is an ordinarie liniment made therwith, for skabs, mange, and leproſie. The ſeed being boiled with wheat, and ſo taken in drinke, cauſeth nources to have good ſtore of milke. The root of this wild vine is very ſoveraigne, and ſerveth in right good ſtead for a number of purpoſes: Firſt, if it be powdred to the weight of two drams and given in drinke, it is ſingular againſt the ſting of ſerpents: it is excellent to ſcoure the skin of the face, to take away all ſpots and ſpeckles, flecks and freckles, in any part of the body; the black & blew tokens of ſtripes, by reaſon of bruſed bloud lying under the skin; foule and unſeemly ſwert skars, it reduceth to the freſh and naturall colour: Theſe operations it hath, being boiled in oile. The decoction alſo is uſually given in drink to thoſe who be ſubject to the falling ſickneſſe: likewiſe to ſuch as be troubled in mind and beſide themſelves: to as many as are given to dizzineſſe and giddineſſe of the
F braine, and doe weene that every thing turns round; but they muſt take the poiſe of one dram every day throughout the yeare. The ſame root if it be taken in any great quantitie, * purgeth the ſences. But the principall and moſt excellent vertue that it hath, is this, That if it bee ſtamped with water, and ſo applied, it draweth forth ſpells of broken and ſhivered bones as well and effectually as the very true Bryonie, which is the cauſe that ſome doe call it white Bryonie:

* Some take it for Bryonie.

* *Purgat*, rather *turbat* out of *Dioſcor. i.* troubleth the braine.

for there is another which is blacke, and of greater efficacie to the ſame purpoſe, if it be applied with honey and frankincenſe. It is very good to reſolve impoſtumes and biles which are in growing, and not yet come to ſuppuration; but if they have continued and gather to an head, it bringeth them ſoone to maturation, and afterwards cloſeth them. It bringeth downe womens monthly ſickneſſe, and provoketh urine. An electuarie or lohoch made thereof, to licke, and ſuffered gently to melt under the tongue and goe downe leiſurely, is ſingular good for ſuch as bee ſhort winded and labour for breath: alſo for pleuriſies or pains of the ſide, for convulſions and inward ruptures. If one drinke the weight of three oboli thirtie dais togither, it will waſt and conſume the ſwelled ſplene. The ſame ſerveth in a liniment to be applied with figs unto the excreſcences or riſings of the fleſh over the naile, called Pterygia. Being laid too as a cataplaſme with wine, it fetcheth away the after-birth in women: and taken to the weight of a dram, in honeyed water, it purgeth phlegmaticke humors. The juice of the root muſt be drawne before the fruit or ſeed be ripe: this juice either alone, or incorporat with Ervile meale, if the bodie be annointed therewith, doth illuſtrat the colour, make the skin ſoft and tender; and in one word it is ſuch an embelifhment, that it maketh any perſon better for the ſale: [*where, by the way note, that it chaſeth ſerpents away.] Moreover, the very ſubſtance of the root, if it be ſtamped with fat figs, doth lay the rivels and wrinkles of the skin plaine and even, if it be rubbed or annointed therewith: but then the partie muſt walke immediatly upon it, a good quarter of a mile; for otherwiſe it will fret and burne the skin, unleſſe preſently it bee waſhed off with cold water. Howbeit the blacke wild vine doth this feat more gently and with greater eaſe, for ſurely the white ſetteth an itch upon the skin. There is therefore a blacke wild vine, which properly they call Bryonia, ſome Chironia, others Cynecanthe or Apronia, like in all reſpects to the former, but onely in the colour [of the root grape or berrie] for it is blacke, as I have before ſaid. The tender ſprouts and ſions that ſpring from the root, *Diocles* preferred to bee eaten in a ſalad or otherwiſe, before the verie crops and tender ſhoots of the true garden Sperage; and indeed they provoke urine and diminiſh the ſplene far better: it groweth commonly in hedges among buſhes and ſhrubs, and moſt of all in reed-plots. The root without-forth is blacke, but within of a pale yellow box colour; and this is of much more efficacie to draw out broken bones than the above-named white Brionie. Moreover, this peculiar propertie it hath beſides, To cure the farcines or ſores in horſe necks; and for this, it is thought to be the onely thing in the world. Said commonly it is, that if a man doe ſet an hedge or hay thereof round about a grange or ferme houſe in the countrey, there will no kites nor hawks, nor any ſuch ravening birds of prey, come neare; ſo as the pullen and other foule kept about the ſaid ferme, ſhall be ſecure from their claws or tallons. If it be tied about the ankles of a man, or the paſterns of labouring horſes, unto which there is a fall either of phlegmaticke humors or of a bloud, cauſing the gout in the one and the pains in the other, it cureth the ſame. Thus much concerning the ſundrie ſorts of vines, and their properties reſpective to Phyſicke.

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*I ſee no reaſon of this clauſe here, but thinke it ſuperfluous according to ſome manuſcript copies.

As touching Muſts or new wines, the firſt and principall difference of them lyeth in this, That ſome by nature are white, others blacke, and others againe of a mixt colour between them both. Secondly, ſome muſts there bee, whereof wine is made; and others, which ſerve onely for cuit. But if we regard the artificiall deviſes and the carefull induſtrie of man about them, there be an infinit number of muſts all diſtinct and different one from the other. Thus much may ſuffice to deliver fully in generall tearms concerning muſts or new wines. As for their properties, There is no muſt or new wine, but it is hurtfull to the ſtomacke, though otherwiſe pleaſant to the veines and paſſages. Certes, if a man poure downe new wine haſtily, without breathing or taking the wind betweene, preſently as he commeth out of the baine or hot-houſe, he doth enough to kill himſelfe. Howbeit, of a contrarie nature it is to the Cantharides, & ſaveth thoſe that are in danger by drinking them. A ſingular countrepoiſon is new wine in the lees, againſt all ſerpents, but principally the Hæmorrhoids and the Salamanders. It cauſeth head-ach, and is an enemie to the throat and windpipes. Holeſome it is for the kidnies, the liver, and the inward parts of the bladder, for it eaſeth them all of paine. But a ſingular vertue it hath againſt the venomous worm or flie Bupreſtis, above the reſt: if one drinke it with oile, and caſt it up again by vomit, it is an excellent remedie for thoſe who have taken too much Opium: it helpeth thoſe who are in danger of crudled milke within the bodie: ſuch alſo as are poiſoned with hemlock, envenomed with the poiſon Toxica & Dorycnium. In ſum, white new wine is not ſo powerfull in operation as others.

Likewiſe

A Likewiſe, the Muſt, whereof cuit is made, is more pleaſant than the reſt, and cauſeth leſſe headach.

As touching the ſundrie kinds of wine, which are exceeding many, as alſo the vertues and properties of every ſeverall ſort in manner by it ſelfe, I have ſufficiently diſcourſed in a former Treatiſe. Neither is there any point more difficult to be handeled, or that affourdeth greater varietie of matter. And a man cannot readily ſay, Whether wine be more hurtfull or holeſome for our bodies? conſidering the doubtfull event and iſſue preſently upon the drinking therof, for that ſometime it is a remedie and helpe, otherwhiles it proveth to bee a miſcheeſe and a very poyſon. For mine owne part, according to my firſt deſſigne and purpoſe, I am to treat only of ſuch things as Nature hath brought forth for the health and preſervation of man. Well I wote, that *Aſclepiades* hath made one entire volume expreſſely, of the manner how to give wine in drinke. Vpon
B which Treatiſe or booke of his, an infinit number there were who have written their Commentaries. As for me, according to that gravitie which beſeemeth Romanes, and to ſhew affection and love to all liberall Sciences, I will not diſcourſe thereof as a Phyſician, but with great care and diligence write ſo deſtinctly, as a deputed judge or arbitrator delegat to determine of mans health, and the preſervation thereof. To diſpute and reaſon of every ſeverall kind, were an endles peece of worke, and ſo intricat, as I wot not how a man ſhould rid himſelfe out of it, if he were once entred; ſo repugnant and contrarie are the Phyſicians one to another in that argument.

To begin firſt with the wine of Surrentum, our ancients have held it ſimply for the beſt above all others. But our later and more moderne writers, have made greater account of the Albane and Falerne wines. In ſumme, every one hath judged of the goodneſſe of wine, according to his
C owne conceit and fantaſie: a moſt unequall courſe of proceeding, without all reaſon and congruitie, to pronounce definitively unto all others that for beſt, which pleaſed and contented his own taſt moſt. And yet ſet the caſe and ſay, they were all agreed and of one opinion as touching the moſt excellent wines; How is it poſſible, that the whole world ſhould enjoy the benefit thereof, ſince that great lords and princes themſelves have much adoe to meet with pure and perfect wines, without one ſophiſtication or other? In good faith, the world is growne to this abuſe, that wines be bought and ſold now at an higher or lower price, according to the name and bruit that goeth onely of the cellars from whence they come: whereas in truth, the wines were marred and corrupted at the firſt in the very preſſe and vatt, preſently after the vintage and grape-gathering. And therfore it is, that now adaies (a wonderfull thing to be ſpoken) the ſmalleſt and baſeſt wines
D are of all others leaſt ſophiſticat & moſt harmleſſe. Well, howſoever it be, and admit that the nobleſt kinds of wine are moſt ſubject to theſe bruings & ſophiſtications, which make indeed the ods that is; yet thoſe wines beforenamed, to wit, the Falerne, Albane, and Surrentine, do ſtill import, and carie away the victorie and priſe from all the reſt, by the generall voice & conſtant ſentence of all writers. As touching the Falerne wine, it is not holeſome for the bodie, either very new, or over old; a middle age is beſt, and that begins when it is fifteene yeares old, and not before. This wine is not hurtfull to a cold ſtomacke: but I cannot ſay ſo of a hot ſtomacke. If it be taken alone and pure of it ſelfe in a morning, and drunke faſting, it dooth much good unto them who have been troubled with a long cough, or vexed with a quartane ague. And verely, there is not a wine that ſtirreth the bloud and filleth the veines ſo much as this. It ſtaieth the laske, and nourifheth
E the bodie. Howbeit, generally received and beleeved it is, That this wine dimmeth the eyeſight, and doth no good to the bladder and nervous parts. And indeed, the Albane wines agree better with the ſinewes. And yet the ſweet wines that come out of the Vineyards of the ſame tract are not ſo holeſome to the ſtomacke: but the harſh and hard auſtere wines of this kind, bee in that regard better than the Falerne wines aboveſaid. And in one word, theſe Albane wines help digeſtion but little, and in ſome ſort ſtuffe and fill the ſtomacke. But the Surrentine wines charge not the ſtomacke any jot, nor yet ſume up into the head: nay, they doe reſtrain and repreſſe the rheumaticke fluxions both of ſtomacke and guts. As for the wines of Cæcubum, they bee now paſt date, and none of them are made any more. But thoſe of Setinum, which remaine ſtill and be in ſome requeſt, doe mightily aid concoction, and cauſe the meat for to digeſt. In a word, Surren-
F tine wines have moſt ſtrength, the Albane drinke harder, and the Falerne be more mild and nothing ſo peircing as the reſt.

The Statane wines come not farre behind theſe abovenamed. As for the Signine wine, out of all queſtion it is ſimply the beſt to bind the bodie, and ſtop a vehement flux. Thus much for wines and their properties in particular. It remaineth now to ſpeake of their vertues in generall.

Firſt

Firſt and formoſt, wine maintaineth and fortifieth the ſtrength of man, engendreth good bloud, and cauſeth a freſh and lively colour. And herein verely conſiſteth the principall difference betweene our temperat climat within the heart (as it were) and middle part of the world, from thoſe intemperat Zones on either hand. And looke how much the diſtemperature of the two Poles, worketh in the inhabitants of thoſe parts, and hardeneth them to endure and ſupport all kind of travell: ſo much dooth this ſweet and pleaſant liquor of the grape enable us to abide and ſuffer the like labour. And becauſe wee are entred into this theame, note thus much moreover, That the drinking of milke nouriſheth the bones: of beere and ale, and ſuch like, made with corne, feedeth the ſinewes and nervous parts: but of water, maintaineth the fleſh and brawnie muſcles onely. Which is the cauſe, that ſuch nations as drinke either milke, ale, beere, &c. or ſheere water, are nothing ſo ruddie of colour, nor ſo ſtrong and firme to undergoe painefull travell, as thoſe, whoſe ordinarie and familiar drink is wine. And in truth, as the moderat uſe of wine doth comfort the ſinewes and helpe the eyeſight; ſo the over-liberall taking thereof doth offend the one, and enfeeble the other. Wine doth recreate and refreſh the ſtomacke: wine ſtirreth up the appetite to meat: wine allaieth ſorrow, care, and heavineſſe: wine provoketh urine, and chaſeth away all chilling cold out of the bodie. Finally, wine induceth ſleep and quiet repoſe. Moreover, this good propertie hath wine, To ſtay the ſtomack and repreſſe vomits, taken into the bodie: and without-forth applied with wooll embrued and bathed therein, To diſſipat and reſolve all ſwelling apoſtemes. *Aſclepiades* was ſo addicted to the praiſe of wine, that hee baſhed not to make compariſons and pronounce, That the power and puiſſance of the gods was hardly able to match and countervaile the might and force of wine. Moreover, this is to be noted, that old wine will beare a greater proportion of water than new, and provoketh urine more: although it doe withſtand and allay thirſt leſſe. Sweet wines doe not ſo much inebriate and overturne the braine, as others; but they flote aloft in the ſtomacke: whereas auſtere and hard wines bee lighter of digeſtion and ſooner concocted. The lighteſt and ſmalleſt wine is that which ſooneſt commeth to his age, and ſheweth it moſt quickly. The wines which by age and long keeping, lay downe their verdure and become ſweet, are leſſe hurtfull to the ſinewes than others. The groſſe, fattie, & black wines, are not ſo good for the ſtomacke; howbeit, they be moſt nutritive: for the thin and bruske harſh wine doth nouriſh the bodie leſſe, but yet more agreeable and nutritive it is to the ſtomack. It paſſeth more ſpeedily away by urine, but fumeth up ſo much the rather into the head. And take this for a generall rule once for all, not onely in wines, but in any other liquors whatſoever, which be penetrative, ſubtile, & piercing, That they be alwaies offenſive to the head, howſoever otherwiſe they be piercing, and paſſe ſoone away. Furthermore, wines that are laid up in ſmokie places, thereby ſooner to ſeeme refined and old, are of all others moſt unholeſome. But this and ſuch caſts were deviſed by huckſters, vinteners, and taverners, after the wines were laid up in their cellars. And now adaies good houſekeepers alſo have invented meanes to renue their wines, and make them ſeeme freſh and new, after they have by long lying gotten a fuſtie rotten taſt, and gathered a mouldie mother of themſelves, which is called Caries in Latine. And verely, our auncitors by uſing this tearme, in wines overſtale and kept above their due age, have given us counſell and taught us ſufficiently, how to take away this unpleaſant taſt of wine, that is to ſay, by ſmoke: for like as ſmoke doth eat away and conſume the moiſture and mouldineſſe in timber, which cauſeth rottenneſſe, ſo it doth in wines. But wee forſooth contrariwiſe, are perſuaded, that the bitterneſſe of ſmoke, when it hath caught the wine, maketh it to appeare ſtale and old. Such wines as be very pale and whitiſh, proove the better and more holeſome by age and long lying. The more excellent that the wine is and of the kindlier grape, the thicker and groſſer it waxeth by age; and in this gathering turneth to a kind of bitterneſſe, which is hurtfull to mans bodie. Likewiſe, as unholeſome it is to mix, ſeaſon, and confect therewith ſome other wine, that is not ſo aged, and ſo to keepe or drinke them together. Each wine agreeth beſt with the ſtomacke, and doth leaſt harm, when it hath no other liquor nor taſt, but the own: and every wine is moſt pleaſant and delightſome when it is taken in due time, that is to ſay, neither old nor new, but of a middle age, which is the very flower. Such perſons as would feed, and deſire to be corpulent, or to keepe their bodies ſoluble, and have the riddance of their bellie at commaund, ſhall doe well to drinke often at their repaſt: Contrariwiſe, they who feed overmuch, and deſire to be gant and ſlender, and withall, to be coſtive, ought to forbear drinking at meales, ſo long as they eat, but after meat they may drink moderatly. To drinke wine upon an emptie ſtomacke faſting, is a new found deviſe lately come up,

A up, and it is moſt unholeſome for the bodie, and namely for thoſe who are to goe into the field for to fight a battell: for it hindereth the forecaſt of the mind, and dulleth the vigor and quickneſſe of the ſpirit: fitter indeed to bring and lull men aſleepe in the bed of ſecuritie. Certes, it was a practiſe long agoe among ſuch as deſired reſt and peace, and who loved to ſleepe in a whole skin, for to drinke wine faſting: for ſo we read in *Homer*, how *Helena* that faire ladie, preſented a cup of wine before meat. And hereupon came the proverbe, That wine doth overſhaddow and darken the light of wiſdome & underſtanding. Verely we that are men have this propertie above all other living creatures, and wee may thanke wine for it, That wee drinke many times when wee be not drie nor a thirſt. And therfore paſſing good it is to drink faire water otherwhiles between. In like manner ſuch as uſe ordinarily to be drunke, and are lightly never ſober, ſhall not do amiſſe
B to take a good draught of cold water preſently upon their liberall pouring in of wine: for it will forthwith diſpatch and diſcuſſe thoſe fumes which cauſe drunkenneſſe. *Heſiodus* giveth counſell to drinke wine ſomewhat delaied with water, for twentie daies before the riſing of the Dogge ſtar, and as many after. True it is indeed, that Mere * wine not delaied, is a remedie againſt Hemlocke, * *Merum.* Coriander, the poyſon Aconite or Libard-baine, the venomous gum of the plant Chamæleon, called Ixia, Opium, or the juice of Poppie, and Quickſilver: alſo, for ſuch as have ben ſtung with Bees, Waſpes, and Hornets, the venomous ſpiders Phalangia, Serpents, and Scorpions; and generally, againſt all thoſe poyſons, which by reaſon of a cold qualitie doe mortifie naturall heat. But partieularly it is a ſpeciall countrepoyſon againſt the venomous worms called Hæmorrhoids and Preſters, as alſo the deadly Muſhromes. Over and beſides, ſingular good is wine againſt ven-
C toſities, gripings, and gnawings about the midriffe and precordiall parts about the heart: alſo for thoſe, whoſe ſtomackes are readie every while to overturne and to caſt: and where the bellie or entrailes be troubled with rheumaticke fluxes. Semblably, wine a little delaied, is ſingular for the bloudie flix: for ſuch as bee given to faint ſweats, old coughs, and any violent fluxes either into the eyes or other inferiour parts. But a fomentation of meere wine may bee applied with a ſponge to the left pap in caſe of the Cardiacke paſſion, which is a feebleneſſe and trembling of the heart. And in theſe caſes white wine is better than any other, ſo it be of ſome reaſonable age. Alſo it is found by experience, That horſes and ſuch beaſts, either for the ſaddle and packe or draught, become very luſtie, if their ſtones or genetoires be bathed with wine hot: and when they be tired out, there is nothing (by report) better to refreſh their courage, than to poure wine into
D them with an horne. Apes and Marmoſets, and other foure-footed beaſts, whoſe feet are divided into clawes or toes, will not grow (men ſay) if they be uſed to drinke pure wine. But it is my purpoſe now to treat of the properties of wine, touching Phyſicke and the cure of maladies. For gentlemen, well borne and bred, who have wherewith, and may have what they will, the wines of Campaine I count moſt holeſome, ſo they make choiſe of the ſmalleſt and the thinneſt. But the common ſort may be Phyſicians to themſelves, and drinke euery man what wine he liketh moſt, and findeth beſt to agree with him. Howbeit to ſpeake generally, the holeſomeſt wines both of the one ſort and the other, and for all perſons, be ſuch as have run through a ſtrainer or Ipocras bag, and therby loſt ſome part of their ſtrength. But this we muſt remember every one of us, That the liquor of wine getteth all the force and ſtrength that it hath by working, ſpurging, and ſee-
E thing (as it were) in the lees whiles it is Muſt. To mingle ſundrie kinds of wine together, can bee good for none, neither rich nor poore. Contrariwiſe, that wine is held moſt healthfull, that is of it ſelfe, and had nothing put thereto in the firſt vatt or veſſell when it was new and meere Muſt of the grape: and the better will it bee, if there come no pitch into the barrels or veſſels wherein it is tunned or filled. For as touching thoſe wines, which are medicined with marble, plaſtre, & quicklime, what man is he (were he never ſo healthie and ſtrong) but he may be afraid well ynough to drinke therof? Well then, wines either tunned up or delaied with ſea water, be hurtfull to the ſtomacke, ſinewes, and bladder, as much as any other. As for the wines dreſſed and confected with Parrozine, they are thought to be holeſome for cold ſtomackes: but contrariwiſe, good they are not for ſuch as are prone to vomit, no more than Muſt it ſelfe, or cuit, whether it be Sapa or Paſ-
F ſum. Wine, wherein roſin hath been newly put, is not for any man to drinke; for it cauſeth headach, ſwimmings, and dizzineſſe in the braine: and no marvell if this mixture be called Crapula, for it doth intoxicat the braine. Howbeit, theſe wines thus brued and dreſſed with roſin, are good for the cough and all rheumes; likewiſe, for feeble ſtomackes and the flux thereof enſuing; as alſo in dyſenteries or exulcerations of the guts, and their bloudie flix; and laſt of all, for womens

termes.

termes. In these kind of wines thus mixed and sophisticated, the claret or deepe red are more astringent and hote than all others. Lesse harme yet commeth of those wines which bee prepared with pitch alone, and nothing else. Nevertheless, wee must not forget, that pitch is nothing else but the liquor that runneth from burnt Parrozin. And in truth, these wines that stand upon pitch, doe heat the stomacke, helpe concoction, and purge offensive humours: they bee good for breast and bellie: likewise, comfortable to the matrice, for they doe allay the paines thereof, if the woman have no feaverous disposition; and doe cure Rheumes and Catarrhes, which have continued their course a long time: they heale inward ulcers, ruptures, spasmes, and convulsions; impostumes bred within the interiour parts, feebleness of the sinewes, ventosities, coughs, pursiveness, wheezing, and shortnesse of breath; and finally, helpe dislocations, beeing applied with unwashed and greasie wooll, as it grew in the fleece. But note, that for all these infirmities abovenamed, the wine is more effectuall, which naturally hath a tast of pitch, and thereupon is called Picatum, than any other, that by artificiall meanes is dressed and prepared with pitch. And yet the wines made of the Helvenake grapes, if a man drinke over-liberally of them, are well knowne to trouble the head, notwithstanding they tast of pitch naturally. To come now unto the disease, which we call the Feaver or Ague, this is certaine, That wine ought not to bee given in that sickenesse, unlesse the patient bee well stept in yeares and aged, the disease chronicke and of long continuance, or that the sickenesse begin to decline and weare away: for in hote, quicke, and sharpe feavers, which commonly be very daungerous, the sicke persons, bee they young or old, ought to be restrained altogether from wine; except a man may evidently perceive some remission or alleviation of the disease: and the same rather in the night, than by day time; for certainely, the daunger is lesse by the one halfe, if they drinke wine toward night, and in hope to procure sleepe. Moreover, women newly delivered and brought to bed (whether they went their full time, or slipt an abortive fruit untimely) are not allowed in any case to drinke wine: neither those persons who have weakened their bodies with the immoderat use of women, and thereupon fallen sicke: ne yet such as be subject to the headach: no more than those, who during the fits of agues, feele their legges and other extreame parts to bee cold: or have a cough joined with their feaver. Moreover, wine is an enemie to all those who have a shaking and trembling of their joints, or be pained either in their sinewes or throat. Furthermore, in case the force of the disease be knowne to lie much about the * small guts and hypochondriall parts, the patient must altogether forbeare to drinke wine. They are to abstaine likewise when there is any hardnesse felt in the midriffe and precordiall parts: and when the pulses beat mightily, and goe faster than ordinarie. Semblably, in case the crampe doe draw the necke farre backe with a cricke, so as the head cannot stirre forward: or take the whole bodie so, as it is not able for to turne any way, but seeme as stiffe as if it were all of one peece; no wine must bee given unto such a patient. In like sort, those are forbidden to drinke wine, who are given to * yexing: and much more they, who in an ague labour for breath, and draw their wind hardly. But most of all must the sicke be kept from wine when their eyes bee set in their head, and their eye-lids stand stiffe and starke, with their eyes broad open: or bee shut, by reason that they are weake and heavie. Also, they must avoid wine (if they bee wise) who in their sickenesse, as they winke or twinckle with their eyes, doe imagine that they sparkle and glitter againe: like as those who cannot lay their eyes together and close their lids, but sleepe open eyed. And even so they ought to flie from drinking of wine whose eyes be red and bloud-shotten, or otherwise given to bee full of viscous and gummie matter. Neither are they permitted to drinke any wine, who eftsoones stut and cannot pronounce their words perfectly, whether it bee, that their tongue bee over-light and spongeous, or otherwise dull and heavie: no more than those, who hardly and with much difficultie, make water: who are affright suddainly at every little thing that they heare or see: who are given to crampes and crickes: such also as otherwhiles lie benummed, as if they were dead asleepe. And last of all, as many as shed their sperme voluntarily in their sleepe. True it is, and no man maketh any doubt, That the onely hope and right way to cure them, who in the Cardiake disease, for very faintnesse are troubled with the trembling and shaking of the heart and given unto diaphoreticall sweats, consisteth in the drinking of wine. And yet in the manner thereof, Physicians are not agreed: For some are of advise, not to give it but in the verie fit and extremitie of the disease: others againe prescribe it at no time else, but when the violence of the fit is past, and the patient at some ease.

* Circa ilia.

* Especially if it proceed frō some hote or sharpe humor.

They

A They who are of the former opinion, have a regard to their ſweat, for to repreſſe it: but theſe have an eye to the danger of the patient, being of this mind, that it is a more ſafer courſe to give wine when the violence of the ſickneſſe doth abate. And indeed of this judgement I ſee that moſt Phyſicians are. As touching the time to drinke wine, this is certaine, that good it is not but at meat: neither preſently after ſleepe, nor immediatly upon any other drinke, which is as much to ſay, as never but when a man is drie and thirſtie. Neither muſt a ſicke man bee allowed it, but in caſe of neceſſitie or deſperat extremitie. In ſumme, we graunt it to men rather than to women: to aged perſons ſooner than to young folke: and yet to a luſtie young man, before a child: in Winter oftener than in Summer: and to conclude, to ſuch as bee accuſtomed thereto more than to thoſe who have not drunke thereof beforetime. A meaſure alſo and meane would be kept, in the
B allowance of wine, according to the ſtrength thereof, and the proportion of water mixed therewith: and the common opinion importeth thus much, That to one cyath of wine it is ſufficient to put two cyaths of water ordinarily. But in caſe the ſtomacke be weake and feeble, ſo as the meat digeſt not nor paſſeth away downeward, meere wine is to be given to the patient, or at leaſtwiſe in greater proportion to the water.

But to returne again to thoſe artificiall and made wines, I have heretofore ſhewed many ſorts thereof: the making of them is at this day given over, as I ſuppoſe, and their uſe needleſſe and ſuperfluous, conſidering that now we give counſell and preſcribe, to uſe the very ſimples themſelves in their owne nature, which goe to their compoſition. Certes, beforetime the Phyſicians upon a vaine oſtentation, becauſe they would ſeem to have their Apothecarie ſhops furniſhed with ſuch
C varietie, exceeded all meaſure in this behalfe: inſomuch, as they were provided of a wine, made forſooth of Navewes; bearing the world in hand, that it was ſingular good for militarie men, if they found themſelves overwearied either with the practiſe or the bearing of armes, or in riding their horſes: yea, and to ſay nothing of all the reſt, they had the wine alſo of Iuniper. But is there any man ſo fooliſh, as to thinke and maintaine, That Wormewood wine ſhould be more profitable to our bodies, than Wormewood the hearbe it ſelfe? What ſhould I ſtand upon the wine of dates, among others of this range, conſidering that it cauſeth head-ach, and is good for nothing els but *to eaſe the coſtiveneſſe of the bodie, and for ſuch as reach up bloud? As for that which we called *Bion, I cannot ſee or ſay, that it is an artificiall wine: for ſurely, all the art and cunning that goeth to the making of it, lieth in this onely, That it is made and huddled up in haſt: and yet
D profitable it is for a weake ſtomacke readie to overturne, or that is not able to concoct and digeſt the meat within it: holeſome for *women with child: comfortable to thoſe who bee feeble and faint: good for the palſie, the ſhaking of the lims, the ſwimming and giddineſſe of the head, the wrings and torments of the bellie, and the gout, Sciatica. Moreover, it hath the name for to have a ſingular vertue to helpe in time of plague, and to ſtand them in great ſtead who are pilgrimes and travellers into far and ſtraunge countries. Thus much may ſuffice for Wines.

Moreover, ſay that wine be turned, corrupt, and changed from the owne nature, yet it leaveth not to retaine certaine vertues and properties requiſit in Phyſicke: for vinegre alſo is medicinable. Exceeding refrigerative it is, & cooleth mightily: howbeit, no leſſe vertue and force it hath to diſcuſſe and reſolve: an evident proofe whereof we may ſee in this, That if it be poured upon the
E ground, it will fome and caſt a froth. Concerning the manifold operations that it hath in compoſition with other things, I have written oftentimes alreadie, and will write ſtill as occaſion ſhall ſerve. But vinegre, even taken alone by it ſelfe, fetcheth the ſtomacke and appetite again to meat, and ſtaieth the yex or hocquet: and if it be ſmelled unto, it ſtinteth immoderat ſneeſing. Being held in the mouth, it preſerveth folke from fainting with extream heat, whiles they are in the bain or hot houſe. Of it and water together there is made Oxycrat, which is a drinke more mild than vinegre alone. And the ſame with water is comfortable to thoſe who upon the Sunnes heat have gotten the headach or a day-fever, and be newly recovered. Being uſed alſo in the ſame ſort with water, it is counted moſt holeſome for the inflammation or rheume of the eies. A fomentation with Oxycrat or water and vinegre, is ſingular good upon *burnes, ſcaldings, or riſing of the pim-
F ples. In like manner it cureth the leproſie, ſcurfe, and dandruffe, running ulcers and ſcals, bitings of dogs, ſtinging with ſcorpions, ſcolopendres, and hardiſhrewes; and generally, it is good againſt all pricks of venomous beaſts, or pointed darts, and any itch whatſoever. Likewiſe againſt the biting or prick of the *Cheeſlip or Mani-foot worme. Applied hot with a ſpunge to the ſeat, it is ſingular for the infirmities of the fundament. But for this purpoſe there muſt be a decoction or

*Contrarie to *Dioſcorides*, who giveth it *Cœliacis & dyſentericis.*

*or *Biæon.*

*Troubled with *κίτλα* and *μαλακία*, *i.* a corrupt and depraved appetite, longing after this and that, and not alwaies the beſt things.

**Poſt uredines.* Some read *hirudines*, *i.* after the ſucking of Horſe-leeches.

**Multipeda*, called otherwiſe *Seps.*

or fomentation made, with three ſextars of vinegre, whereunto there ſhould bee put of Sulphur or Brimſtone two ounces, or a bunch of Hyſſope, and then ſet over the fire for to boile together. G
In caſe of much effuſion and loſſe of bloud, which enſueth and followeth thoſe who are cut for the ſtone, or any thing els taken out of the body; there is nothing better than to foment the place without-forth, with the ſtrongeſt vinegre that may be had, in a ſpunge, and then to take inwardly in drinke two cyaths of the ſame: for ſurely it cutteth and diſſolveth the cluttered bloud lying within-forth. Vinegre taken inwardly and applied outwardly, cureth the filthie tetters called Lichenes. Being miniſtred by way of clyſter, it knitteth the bellie, and ſtaieth all rheumaticke fluxes which have taken a courſe by the guts and entrails. And the ſame helpeth as well the fall and ſlipping downe of the Longeon or fundament, as the laxitie and hanging forth of the Matrice. An *old cough it reſtraineth: the rheums alſo & catarrhes it repreſſeth, which light upon the throte and windpipe: it openeth the paſſages in them who labor for breath, and cannot take their wind but ſitting upright: it confirmeth alſo the teeth loſe in the head. Marie it hurteth the bladder, and doth harme in all infirmities of the ſinewes. The Phyſicians were ignorant heretofore of the ſoveraigne vertue that vinegre had againſt the ſting of the ſerpent called Aſpis, untill by a meere chaunce they came to the knowledge thereof. And thus ſtood the caſe: It fortuned that a certain fellow carying about him a bottle of vinegre, trode upon the ſaid adder or ſerpent, which turned upon him againe and ſtung him: howbeit he felt no harme at all ſo long as he caried the vinegre: but ſo often as hee ſet the bottle downe out of his hands, the ſting put him to ſenſible paine. By which experiment it was found and knowne, that vinegre was the onely remedie: and ſo with a draught thereof he had helpe out of hand, and was cured. But behold another proofe and triall thereof: They that uſe to ſucke out the poyſon of venomed wounds given by ſerpents and ſuch like, uſe no other collution to waſh their mouths withall, but onely vinegre. Certes, the force of vinegre is ſuch, that it conquereth not only the ſtrength of our viands and meats, but alſo many other things. For the very hard rockes, which otherwiſe it was unpoſſible to cleave before with the violence of fire, ſoon breake and give way, when vinegre is poured aloft. This ſingular gift moreover it hath, that no liquour in the world giveth a better taſt to our meats and ſauces, or quickeneth them more than vinegre doth: for which purpoſe, if it be overſharpe and ſtrong, there is a meanes to mitigat and dull the force thereof, either with a toſt of bread, or ſome wine: againe, if it be too weake and appalled, the way to revive it againe, is with Pepper or the ſpice Laſer: but nothing doth moderat it better than ſalt. And to knit up and cloſe this diſcourſe of vinegre, I cannot forget nor overpaſſe one rare and ſingular accident that befell of late: *M. Agrippa* in his latter daies was much troubled and afflicted with a greevous gout of his feet; and being not able to endure the intollerable paines thereof, tooke counſell of a certaine leaud leech, ſome bold and venterous Empiricke, who made great boaſt of his deepe skill and admirable knowledge (for the Emperour *Auguſtus Cæſar*, whoſe daughter hee had eſpouſed, hee made not acquainted with the matter;) who gave him counſell to bath his legs with hote vinegre, and to ſit therein above his knees, at what time as his diſeaſe tormented him moſt: True it is indeed, that hee was eaſed of his paine by this meanes, for hee loſt the very feeling of his feet. Howbeit, *Agrippa* choſe rather to be paralyticke in ſome ſort, and to want both uſe and ſence of his legs, than to abide the extremitie of his gout. H I K L

*For it ſtirreth the cough at the beginning. *Dioſcorides.*

Chap. II.

Of vinegre Scyllitick. Of Oxymel. Of the double cuit wine Sapa. The lees of wine: dregs of vinegre: and of the foreſaid cuit.

THe vinegre of Squilla or ſea-Onions, called Scillinum, the elder it is and longer kept, the more is it eſteemed. This vinegre, over and above the other vertues of common vinegre before rehearſed, hath this propertie, To helpe the ſtomack, in caſe the meats lie ſouring and corrupting therein: for no ſooner doth a man taſt thereof, but it diſpatcheth and riddeth away the foreſaid inconvenience. Moreover, it is good for them that are given to vomit, faſting, in a morning: for it hardeneth the throat and the mouth of the ſtomacke which is overſenſible, and knitteth the ſame. It cauſeth a ſweet breath, confirmeth the fleſh about the gums, faſteneth the teeth which are looſe, and maketh a bodie looke with a freſh and lively colour. Being gargarized, it draweth away and doth evacuat thoſe groſſe humours which cauſed hardneſſe of hearing, and openeth

A openeth the auditorie paſſages of the ears; and ſo by conſequence clarifieth the ſight of the eies. Soveraigne it is beſides for thoſe who have the falling ſickneſſe, and who are troubled in mind by occaſion of melancholy. It cureth the turning and dizzineſſe of the braine, the ſuffocation or riſing of the mother. It helpeth ſuch as be ſore and bruiſed with drie blowes; ſuch as are falne headlong from high places, and thereby have cluttered bloud gathered within their bodies: as many alſo as have the infirmitie or weakneſſe of ſinewes, or otherwiſe be diſeaſed in the kidnies: howbeit offenſive it is to thoſe that have any ulcer either within or without.

Touching the ſyrrup Oxymel, *Dieuches* ſaith, That the auncients in old time prepared and tempered it in this manner: They tooke of honey ten pounds, of old vinegre five hemines, of bay ſalt one pound, of Saverie three ounces, of ſea water five ſextars: Theſe togither in a kettle
B they did ſet to boile, and let them have ten walms over the fire: then they lifted the pan from the fire, powred this liquor out of one veſſell into another, and ſo kept it for their uſe. But *Aſclepiades* comes after, diſprooveth all the manner of this compoſition, and withall condemneth the uſe thereof; for the Phyſicians before his time, feared not to preſcribe it to be drunke even in fevers: and yet both he and all, do confeſſe and agree, That this was a good drink againſt the venomous ſerpent called Seps: alſo for them who were poiſoned with Opium, [*i.* the juice of Poppey] or with the gum Ixia, which commeth from the hearb Chamæleon. Moreover, they all commend it to be gargled hot for the ſquinancie, for the paine and deafeneſſe of ears, for the accidents and infirmities of the mouth and throat: like as at this day we uſe in all theſe caſes, the ſharpe brine or pickle called Oxalme; which, if it be made of ſalt and new vinegre that is freſh and quicke, it
C is better in operation.

As for the Cuit named in Latine Sapa, it commeth neare to the nature of wine, and in truth nothing els it is, but Muſt or new wine boiled untill one third part and no more do remaine: and this cuit, if it be made of white Muſt is counted the better. Vſe there is of it againſt the flies Cantharides and Bupreſtes; againſt the worms breeding in Pine trees, named thereupon Pityocampæ, againſt Salamanders, and generally all thoſe beaſts whoſe ſting or tooth is venomous. If a woman drinke thereof, togither with ſcallions or ſuch bulbs, it ſendeth downe the after-burden, and expelleth the dead infant out of the wombe. And yet *Fabianus* mine author ſaith, That it is no better than a very poiſon, if a man drinke it faſting preſently after he is come out of the baine.

A conſequent and appendant to theſe foreſaid things, is the lees of wine; which is to be con-
D ſidered according to the wine from whence it commeth: & verely the lees of wine are ſo ſtrong, that oftentimes it overcommeth and killeth thoſe, who go down into the vats and veſſels wherein the wine is made. But to know and prevent the daunger thereof, this experiment is found; namely, to let downe a candle into the ſaid vat: for ſo long as it will not abide light, but goe out ſtill, daungerous it is for a man to enter into thoſe veſſels. And yet wine lees without any waſhing at all, goe into the compoſition of many medecines. Take wine lees a certaine quantitie, and of the floure-de-lis or Ireos root a like weight, concorporat them togither into a liniment: ſingular it is to annoint the ſmall pocks and ſuch like cutanean eruptions. The ſame, either drie or wet, may be applied with very good ſucceſſe to the places ſtinged with the venomous ſpiders called Phalangia; to the inflammations likewiſe of the genetoirs or privie members; to the paps, or
E any other part of the bodie whatſoever. Now for the better preparing thereof, it ought to be ſodden in wine, togither with barley meale and the powder of frankincenſe; which done, to bee burned and ſo dried. And to know whether it bee ſufficiently ſodden or no, make this triall: If you touch it never ſo little at your tongues end and ſo taſt thereof, when it is throughly cold, it will ſeeme to bite and burne it, if it have had ſufficient boiling as it ought: but it ſoone looſeth the heart and force, if it be not kept in a place well encloſed: by the ſaid burning, it commeth to be much more ſtronger in operation. Sodden with figs, it yeeldeth an excellent decoction to repreſſe tettars, ſhingles, and ſuch like wildfires; to ſcoure away alſo ſcurfe and dandruffe: & in that ſort applied either as a cataplaſme or fomentation, it cureth the leprie, and running ſkalls of the head. Being taken in drinke, eſpecially raw, it is a ſoveraigne countrepoiſon for ſuch as have ea-
F ten venomous muſhroms. Boiled and waſhed, it it is mingled with colyries which ſerve for the eyes. A liniment thereof, cureth the accidents that befall to the cods and genetoirs. Taken in wine, it helpeth the ſtrangurie, and giveth them eaſe who otherwiſe could not piſſe but by dropmeale. Lees of wine, after it hath loſt the cauſticke operation and life that it had, will ſerve very well for a good lie or water to cleanſe the skin of our bodies, and to waſh or ſcoure cloaths: and

then verely, it hath the aſtrictive power of Acacia, and ſerveth for the ſame uſe. G

The dregs of vinegre, muſt of neceſſitie be much more ſharpe, biting, and ulcerative, than wine lees, in regard of the matter whereof it commeth: it driveth backe impoſtumes and biles, and keepeth them from ſuppuration. A liniment of it, helpeth the ſtomacke, belly, and entrails: it ſtaieth the flux of thoſe parts, and the overflow of womens moneths: it diſcuſſeth puſhes and ſmall biles, and ſquinances, if they be taken betimes before they feſter and impoſtumat: and a cerot made with it and wax togither, is good againſt S. *Anthonies* fire. The ſame drieth up the milke in womens breaſts, who would not be nources, or bee troubled with overmuch milke. It taketh away with eaſe the illfavoured rugged nails, and giveth roume for new to come up in their place. Applied with groſſe barly meale or groats, it is ſingnlar and moſt effectuall againſt the venome of the horned ſerpents, called in Greeke Ceraſtæ: and with Gith or Nigella Romana, it H is uſed for the biting both of crocodile and mad dog. The burning alſo of theſe dregs, doth quicken and fortifie the ſtrength thereof: and being thus burnt and incorporat with the oile of Lentiske, * it coloureth the haires of the head in one night red, if they bee annointed withall: The ſame lapped in a fine linnen cloth, and put up in forme of a peſſarie, cleanſeth and mundifieth the ſecret parts of women.

* *Serenus Samonicus* calleth this ointment *Vnguentum Cineris*, alledging *Plinie* for his author.

To conclude with the grounds or lees of the cuit Sapa; vinegre dregs are knowne to be verie good for to heale burnes; and the cure proceedeth better, in caſe they be mixed with the furrie cotton or downe of reeds: the ſame being ſodden, and the decoction thereof taken as drinke, cureth inveterat coughs. Laſt of all, they uſe to ſeeth or ſtew it betweene two platters with ſalt and greaſe, wherewith they make a liniment or ointment to take downe the ſwelling of the chaws I and the nape of the necke.

Chap. iii.

Of Olive trees: of the leaves of Olives, their floures and their aſhes. Of the white and blacke Olive berries: and of the mother or lees of Oile-olive.

NExt after the Vine, there is not a tree bearing fruit, of ſo great authoritie and account as the Olive. The Olive leaves, are exceeding reſtringent, good to cleanſe, good alſo to reſtraine or ſtop any flux: being chewed and applied to ulcers, they heale them: and reduced with oile into a liniment, they aſſuage the paine of the head. A decoction of their leaves, to- K gither with honey, is ſingular to bath and foment the parts cauterized by the Chirurgian, according to the direction of the learned Phyſician: the ſame uſed by way of a collution, cureth the inflammation of the gumbs, whitflaws, and excreſcences of ranke fleſh in filthie ulcers: with honey alſo it ſtauncheth the flux of bloud, proceeding from any nervous parts. The juice of Olive leaves is ſingular for the little ulcers in manner of carbuncles, with a cruſt or rouſe upon them, riſing about the eies; and all other ſmall wheals or bliſters: as alſo in caſe the ball or apple of the eye be readie to ſtart forth; and therefore it is uſed in collyries or eye-ſalves: for it healeth weeping eies that have run with water a long time, and the excoriations or frettings of the eye-lids. Now this juice is drawne out of the leaves, firſt ſtamped, and then well ſprinckled and wet with wine and rain water, & ſo preſſed forth; which being afterwards dried, is reduced into trochiſques. L The ſame rolled in wooll or bombaſt to the forme of a peſſarie, and ſo put up into the naturall parts of women, ſtaieth the immoderat flux of their fleurs. Good it is alſo for thoſe, who rid corrupt bloud by the inferiour parts. Moreover, it eaſeth the ſwelling piles or bigs ſticking out in the fundament; killeth the cholerique exulcerations called S. *Anthonies* fire; healeth corroſive and eating ſores, and allaieth the paine of night-foes or chilblanes, called by the Greeks Epinyctides. The ſame effects have their flours alſo. The tendrons or young twigs of Olives being in their floure, if they be burnt, yeeld a kind of aſhes which may ſerve as a ſuccedan in ſtead of Spodium: but the ſame muſt bee burnt a ſecond time, after they have been well drenched and ſoked with wine. Theſe aſhes applied as a liniment, or the very leaves onely ſtamped and tempered with honey, are good for impoſtumes growne to ſuppuration, and for the puſhes or biles named Pani: M but if they be mixed with groſſe barly meale or groats, they are in a liniment comfortable to the eyes. Take the green branches of an Olive and burne them, there will diſtill and drop from the wood a certaine juice or liquor, which healeth ringworms, tettars, and ſhingles, ſcoureth away the ſcales of the skin and dandruffe, and cureth the running skalls of the head.

Touching

A Touching the gum that iſſueth from the olive tree it ſelfe, and namely that wild olive which is called Æthiopica; I cannot wonder enough at ſome, who give counſell therewith to annoint the teeth which ake, conſidering that they themſelves give out, That it is a poiſon, and to be found as well in wild olives as others. The rind or barke pared from the root of a moſt tender and yong olive, reduced into an electuarie, and often licked and let downe by leiſure into the throat after the manner of a lohoch, cureth thoſe who reach up bloud, and cough out filthie and rotten matter. The aſhes of the very olive it ſelfe, mixed with ſwines greaſe, cure all tumors; draw forth corruption of fiſtulous ulcers; and when they are thus mundified, heale them up cleane. White olives agree very well with the ſtomacke, but they are not ſo good for the belly. A ſingular commoditie they yeeld before they be put up in their compoſt or pickle, for to be eaten greene by
B themſelves as meat: for they ſcoure away gravell with urine; and good they are for the teeth, whether they be worne, rotten, worme-eaten, or looſe in the head. Contrariwiſe, the blacke olive is not ſo friendly to the ſtomacke; better for the belly; but offenſive both to the head and the eies. Both the one and the other, as well the white as the blacke, being punned and applied to burned or skalded places, doe cure them: but the black have this propertie, That if they be chewed, and preſently as they be taken out of the mouth, laid to the burne or ſcald, they will keepe the place from bliſtering. Olives in pickle are good to cleanſe foule and filthie ulcers; but hurtfull to thoſe who piſſe with difficultie.

As touching the mother or lees of oile-olive, I might be thought to have written ſufficiently, following the ſteps of *Cato*, who delivered no more in writing: but I muſt ſet downe alſo the me-
C dicinable vertues obſerved therein: Firſt and foremoſt therefore, it helpeth the ſoreneſſe of the gumbs, cureth the cankers and ulcers of the mouth; & of all other medicines it is moſt effectuall to faſten the teeth in the head. If it be dropped or poured upon S. *Anthonies* fire, and ſuch other corroſive and fretting ulcers, it is of ſingular operation to heale them: but for kibed heeles, the grounds or dregs of the black oile-olive is the better; as alſo therewith to foment ſmall children. As for that of the white olives, women uſe to apply it with wooll unto their ſecret parts, for ſome accidents thereto belonging. Be it the one or the other, generally it is more effectuall ſodden than otherwiſe. Boiled it ought to be in a copper or braſſe veſſell, untill it come to the conſiſtence of honey. Vſed it is with vinegre, old wine, or with muſt, according as the cauſe requireth, in curing the infirmities of the mouth, teeth, and ears; in healing running skalls; and finally, in
D the cure of the genetoirs or privie members, and of the fiſſures or chaps in any part of the bodie. In wounds it is uſed with linnen cloth or lint; but in diſlocations, it is applied with wooll. And verely in theſe caſes and in this practiſe, it is much employed, eſpecially if the medicine be old and long kept: for being ſuch, it healeth fiſtulous ſores. And being injected by a ſyringe into the ulcers of the fundament and genetoirs, or otherwiſe by a metrenchyte into the ſecret ſores within the naturall parts of women, it cureth them all. Alſo a liniment thereof is ſingular for to be applyed to the gout of the feet: alſo in the reſt, whether they be in the hands, knees, hucklebone, or any other joynt; ſo they be not ſetled and inveterat, but taken at the firſt. But in caſe it bee ſodden againe in the oile of greene olives, untill it come to the conſiſtence of honey, and ſo applyed, it cauſeth thoſe teeth to fall out of the head without paine, which a man would willingly be rid of.
E It is wonderfull to ſee how it healeth the farcines and manges of horſes, being uſed with the decoction of Lupines and the hearbe Chamæleon. To conclude, there is no better thing than to foment the gout with theſe lees of oile, raw.

Chap. iiii.

*Of the wild Olive leaves. The oile of the floures of the wild vine Oenanthe. Of the oile Cicinum, i. of Palma Chriſti. The oile of Almonds: of Bayes, of Myrtles, of * Ruſcus or Chamæmyrſine, of Cypreſſe, of Citrons, and of Nuts.*

* i. Butchers broome.

F THe leaves of the wild olive have the ſame nature that the leaves of the tame. As for Antiſpodium, or the aſhes made of the tender braunches of the wild olive, it is of greater force and operation in ſtaying and repreſſing of rheume, catarrhes, and fluxes, than that above-named in the former chapter. Over and beſides, it aſſuageth the inflammations of the eyes, it mundifieth ulcers, it doth incarnat and fill up the void places where the fleſh is gone, it gently

eateth away and without mortdication, the excreſcence of ranke and prowd fleſh, drieth the G
ſores, healeth and skinneth them up. In other caſes, this olive is uſed as the other olives: and yet one peculiar propertie hath the wild olive, That a ſpoonefull of the decoction of their leaves with honey, is given with good ſucceſſe to them that ſpit and reach up bloud. Howbeit, the oile made hereof is more ægre and ſharpe, yea and mightier in operation, than that of the other olives: and a collution thereof to waſh the mouth withall, ſetleth the teeth that be looſe. The leaves of the wild olive reduced into a cataplaſme with wine, and ſo applied, doe cure whit-flaws about the root of the nails; carbuncles, and generally all ſuch apoſtemations: but with honey, the ſaid cataplaſme ſerveth well to cleanſe and mundifie where need is. The decoction of the leaves, yea and the juice of the wild olive, is put into many compoſitions and medicines appro-priat to the eies. To good purpoſe alſo the ſame is dropped into the ears with hony, yea although H
they ran filthie atter. A liniment made with the flours of the wild olive, is ſingular for the ſwel-ling piles and the chilblans that be angrie in the night: and the ſame applied with barley meale to the belly, or with oile to the head for the ach thereof, occaſioned by ſome rheume, is knowne to doe verie much good. The young tendrons or ſprings of the wild olive, being boiled and laid too with honey, do rejoyne and reunite the skin of the head which was departed from the bones of the skull. The ſame tendrils pulled ripe from the wild olive, and eaten with meat, doe knit the belly and ſtay laskes: but torrified, and ſo beaten to powder and incorporat with honey, they doe mundifie the corroſive and eating ulcers; they breake alſo carbuncles.

As touching oile of Olives, the nature and manner of making it, I have alreadie treated of at large. But foraſmuch as there be many kinds thereof, I purpoſe to ſet downe in this place ſuch as ſerve for Phyſicke onely: And firſt to begin with the oile made of unripe olives, called in Latine I
Omphacinum, and which commeth neare to a greene colour, it is thought of all others to be moſt medicinable: moreover, the ſame is beſt when it is freſh and new (unleſſe it be in ſome caſe when it were requiſit to have the oldeſt that may be found) thin and ſubtile, odoriferous, and no-thing at all biting; which bee qualities all of them contrarie to that oile which wee uſe with our meats. This greene or unripe oile (I ſay) is good for the ſores of the gumbs: and if it be held in the mouth, there is no one thing preſerveth the whiteneſſe of the teeth better: it repreſſeth alſo immoderat and diaphoreticall ſweats.

The oile Oenanthinum, made of the flours of the wild vine Oenanthe, hath the ſame opera-ons that oile roſat hath. (But note by the way, that any oile howſoever it doth mollifie the body, yet it bringeth vigor and addeth ſtrength thereto.) Contrarie it is to the ſtomacke: it encreaſeth K
the filthineſſe in ulcers, doth exaſperat the throat, and dull the ſtrength of all poiſons, eſpecially of ceruſe or white lead, and plaſtre; namely, if it bee drunke with honyed water, or the broth of dried figs: but it is taken againſt Meconium or Opium, with water: againſt the Cantharides, the Bupreſtis, Salamanders, and the worms Pityocampæ, if it be drunk alone without any thing els: but if it be vomited and caſt up again out of the gorge, it hath no fellow in all thoſe caſes above-named. Moreover, in laſſitudes and extreme colds, oile is a preſent refreſhing and remedie. Ta-ken hot to the quantitie of ſix cyaths, it mitigateth all wrings and torments of the belly; the ra-ther, if rue be ſodden with it: and in that manner it expelleth wormes out of the guts. Drinke it to the meaſure of one hemina, with wine and hot water, or els with the juice of husked barley, it L
looſeth the belly. It ſerveth in good ſtead for vulnerarie ſalves and plaſtres: it ſcoureth and clean-ſeth the skin of the face. Conveied up into the head of kine and oxen, untill they belch and deli-ver it againe, it doth allay and reſolve all their ventoſities: but old oile doth heat more, and is of greater force to reſolve a bodie into ſweats than the new: as alſo to diſſipat all hard tumors and ſwellings. More helpfull alſo it is to thoſe who lie of the lethargie, and eſpecially when the diſeaſe is in declining and wearing away. Somewhat it is thought to clarifie the eyes, namely if it be ap-plyed with an equall quantitie of honey that never came neare ſmoake. A proper remedie it is for the head-ach: likewiſe in ardent fevers, it is very good with water, to allay their heat: and if there cannot any old oile be gotten, it ought to be well ſodden, that therby it may ſeeme to have age ſufficient. M

The oile of Ricinus or Tick-ſeed, called Cicinum, taken as a drinke with the like quantitie of hot water, is ſingular to purge & evacuat the belly: and it is ſaid to have a ſpeciall vertue to clenſe the midriffe, and thoſe precordiall parts neare the heart. Soveraigne it is for all gouts, hard tu-mors, the infirmities of the matrice, of the ears, and for all burns or ſcaldings. And if it be med-

led

A led with the ashes of the shell-fishes called Burrets, it cureth the inflammation of the fundament; and any scab or mange whatsoever. It giveth a fresh colour to the skin of the visage, and causeth the haire to grow plentifully where it is applied. The seed whereof it is made, there is no living creature will touch. Of the grapes which this Palma Christi or Ricinus doth carie, there be made excellent weiks or matches for lamps and candles, which will cast a most cleare light: and yet the oile which is drawn out of the seed, giveth but a dim blaze or obscure flame, by reason of the exceeding grosseneſse and fatneſse thereof. Of the leaves tempered with vinegre, there is a liniment made, which is good for S. *Anthonies* fire: and of themselves alone being fresh and greene, they be applied with good succeſse to the paps, and any violent fluxion whatsoever. The same, boiled in wine, and laid too, with grosse barley meale or groats and saffron, are singular for all inflamma-

B tions: and if they be applied by themselves without any other thing, to the visage, they doe embelish and polish the skin passing well within three daies. Oile of Almonds is laxative: it serveth to soften the body & make it tender; the skin which was riveled, it causeth to looke neat, smooth,

5 and cleare: and being applied with honey, it taketh away freckles and spots out of the face. Boiled with oile rosat, honey, the * rind of pomegranats, it is comfortable to the eares, it killeth the * *Tegmine.*
worms therein, resolveth those grosse humors which were the cause of hard hearing, of the thumping, tinging, and other inordinat sounds within the ears; and withall, easeth the head-ach and cureth the dimneſse of the eies. Reduced into a cerot with wax, it healeth felons, and cleareth the skin of those who be tanned and sunburnt. Wash the head with it and wine togither, it killeth the running scall, and riddeth away the dandruffe: applied with Melilot, it discusseth the swelling

C piles and biggs in the fundament: if the head bee annointed with it alone, it procureth sleepe. Oile de-baies, the newer that it is and greener of colour, the better it is thought to be: hot it is of nature, and therefore good in a palsie, crampe, sciatica, and for bruised places looking blacke and blew upon stripes: and being heat in the rind or coat of a pomegranat, and so applied as a cataplasme, it helpeth the head-ach, old rheums, and infirmities of the ears. Oile of Mirtles is made after the same manner: astringent it is, and serveth to harden any part of the bodie: it knitteth the flaggie gumbs, helpeth the tooth-ach and bloudie flix: it cureth the exulceration of the mattice and bladder; healeth all old ulcers which run and yeeld filthie matter, if it bee brought into a cerot with the skales of brasse, and wax. Likewise it cureth the meazles and angrie wheals: and so it doth all burns and skalds. It healeth and skinneth any gall and raw place: it scoureth

D dandruffe, and represseth the breeding therof: it cureth clifts and chaps: piles and swelling bigs in the fundament, it bringeth downe and resolveth: it knitteth dislocations of joynts, and taketh away the strong and ranke savor of the bodie. A countrepoison it is against the Cantharides and the Bupreſtis: as also against all other venome which is corrosive and hurteth by exulceration. Touching the ground-Myrtle Chamæmyrsine, or Oxymyrsine, it hath the same nature that the other Myrtle hath; and the oiles be of semblable vertues. The oile of Cypresse also, and likewise of Citrons, be not unlike to the oile of Myrtles in operation. But the oile drawn from the Wall-nut kernels (which we called Caryinum) is singular to bring haire againe, where it is falne away by some infirmitie: and instilled into the eares, it helpeth the hardneſse of hearing: if the fore-head be annointed therewith, it cureth the head-ach. Otherwise, it is but dull in operation, and

E yet a stinking smell it hath with it. If but one nut kernell be corrupt and rotten, it marreth all the oile that is made of the rest, were there a pecke of them. The oile which is made of the graine or seed of the plant Thymelæa, is of the same vertue that the oile of Palma-Christi or Tickseed above-named. The oile of the Lentiske is passing good to make an ointment of, against lassitude and wearineſse: and verely it were æquivalent every way to oile-rosat, but that it is found to bee more astringent: it is used much in represſing of immoderat sweats, and those angrie pimples which rise after much sweating. Nothing is there so effectuall to heale the farcines or skab in horses, and such like beasts. The oile of Ben, doth mundifie freckles, cure felons and biles, take away spots and mols, and healeth the impostumations in the gumbs.

As for Cypiros, what a plant it is, and how there is an oile made thereof, I have shewed alrea-

F die. By nature it is hot, and softeneth sinews which be stiffe and starke. The leaves serve to make a good liniment for to annoint the pitch of the stomacke: and their juice applied in manner of a pessarie, setleth the mother when it rolleth every way and is out of her place. The greene leaves chewed and applyed, cure the running scalls in the head, the cankers and sores in the mouth, all risings and apostemations, and likewise the piles. A decoction of the said leaves, is singular for

burns and ſcalls; likewiſe for lims out of joynt, if they be bathed therein. The very leaves in ſubſtance ſtamped & incorporat with the juice of a peare-quince into an ointment, ſet a reddiſh yellow colour upon the haire of the head. The flours brought into a liniment with vinegre, aſſuage the paine of the head: the ſame calcined and burnt into aſhes within a pot of unbaked or rather earth, either alone or with hony, healeth corroſive ſores and putrified ulcers. Theſe flours have a certain ſavour with them, which procureth ſleepe. The oile called * Gleucinum is aſtringent; and yet it cooleth after the ſame ſort that the oile Oenanthinum. The Balſame oile, called Balme, is of all others moſt pretious (as heretofore I have ſaid in my treatiſe of odoriferous ointments) and of great efficacie againſt the venome of all ſerpents. It clarifieth the eye-ſight mightily, and diſpatcheth miſts and clowds which dimmed the ſame: it eaſeth all thoſe who draw their breath with difficultie: it aſſuageth impoſtumations and hard ſwellings: it keepeth bloud from clottering, and is excellent to mundifie foule ulcers: ſingular comfortable to the ears in caſe of paine, hardneſſe of hearing, and ſinging within: to the head alſo for to aſſuage the ach: for the nerves, againſt ſhaking, trembling, and convulſions; and withall, a proper remedie for ruptures. It danteth and mortifieth the poiſon of Aconitum, if it be taken with milke. If the Patient lying ſicke of an ague, be annointed all over therewith, it mitigateth the fits comming with ſhaking and ſhivering. Howbeit, folke muſt be warie and uſe it with moderation; for being hot in the higheſt degree, it is cauſticke, and ſo doth enflame and burne: and therefore if a meane be not kept, it bringeth a miſchiefe for a remedie, and doth more harme than good.

* Some read *Melinum.*

Concerning Malobathrum, the nature and ſundrie kinds thereof, I have diſcourſed heretofore. Now for the vertues which it hath in Phyſicke; firſt, it provoketh urine: being ſtamped, the juice drawne out of it with wine by way of expreſſion, is excellent to bee applied unto the eyes, for to ſtay their continuall watering: the ſame laid to the forehead as a frontall, procureth ſleepe unto them that would gladly take their repoſe. And more effectually it worketh, in caſe the noſethrils alſo be annointed therewith, or if it be drunke with water. The leafe of * Malobathrum, if it be but held under the tongue, cauſeth the mouth and the breath to ſmell ſweet: like as, if it lie among appparell, it giveth them a pleaſant ſavour. The oile of Henbane is emollitive, howbeit an enemie to the ſinews: certes, if it be taken in drinke, it troubleth the braine. The oile of Lupines, called Therminum, is likewiſe an emollitive, and commeth neareſt of any to the operation and effects of oile-roſat.

* *Folium Indicum.*

Touching the oile of Daffodils, I have ſpoken of it in the treatiſe of the flours thereof. Radiſh oile, cureth the lowſie diſeaſe; and namely, when lice are engendred upon ſome long and chronicke diſeaſe: it cleanſeth the skin of the face from all roughneſſe, and maketh it ſlicke and ſmooth. The oile of Seſama, cureth the paine of the ears; and healeth ulcers which eat as they ſpread, even ſuch as be morimals and checke the Chirurgians hand. Oile of Lillies, which wee have named Lirinon, Phaſelinum, and Syrium, is moſt agreeable and holeſome for the kidnies; alſo to procure and maintaine ſweat; to mollifie the matrice and naturall parts of women, and to promote digeſtion inwardly. The oile or ointment Selgiticum (as we have alreadie ſaid) is comfortable to the ſinews: like as the * graſſe-greene oile, which the Inguinians (dwelling upon the cauſey or ſtreet-way Flaminia) uſe to ſell. * Elæomeli, an oile which (as I have declared before) iſſueth forth from olive trees in Syria, carrieth a certain taſt of honey: howbeit their ſtomacks it maketh to riſe at it, who licke thereof; and it is of power to ſoften the bellie. It purgeth choller *Electivè*, if two cyaths thereof be given to drinke in one hemine of water: howbeit theſe ſymptomes or accidents do follow them who drinke thereof: They lie as it were in a dead ſleepe, and muſt eftſoons be awakened. Our luſtie drunkards who make profeſſion of carouſing, uſe to take one cyath thereof before they ſit downe to drinke one another under bourd. The oile of Pitch is uſed every where, for to heale the ſcurfe, mange, and farcins in beaſts.

* *Herbaceum.*
* Called likewiſe *Oleum Syriacum.*

Next to vines and olives, Date trees are to be raunged in the higheſt place, and doe carrie the greateſt name. Dates, if they be freſh and new, doe inebriat and overturne the brain: and if they be not very well dried, they do cauſe head-ach: neither are they (ſo far as I can ſee) any way good for the ſtomacke: againe, they do exaſperat the cough and make it worſe, yet they be great nouriſhers, and cauſe them to feed who eat of them. Our auncients in old time drew a certaine juice or liquor out of them when they were boiled, which they gave unto ſicke perſons in ſtead of an hydromell or honeyed water, to drinke; and that for to refreſh them, to reſtore their ſtrength, and to quench thirſt: and for this purpoſe, they preferred the Dates of Thebais in high Ægypt

before

A before all others. Being eaten as meat eſpecially at meales, they are good for them who reach up bloud. The Dates Caryotæ ſerve to make a liniment for the ſtomack, the bladder, belly and guts, with an addition of Quince among. Being incorporat with wax & ſaffron, they reduce the black and blew markes remaining after ſtripes in the skin, to their naturall colour. Date ſtones with their kernels are burnt in a new earthen veſſell which was never occupied before, and beeing thus calcined, and their aſhes waſhed, they ſerve in ſtead of Spodium, and doe enter with other ingredients into collyries or eye-ſalves: and with ſome Nard among, they make fukes to paint and embelliſh the eye-browes. *Calliblepharis.*

Chap. v.

B ❧ *Of the Myrabolane Date, and the Date Elate.*

THe beſt Palme or Date tree which beareth a fruit like to Myrabolanes, is that which groweth in Ægypt. Theſe Dates have no ſtones, like to others. Beeing taken in unripe and hard wine, they ſtop the flux of the bellie, and ſtay the extraordinarie courſe of womens fleurs, and doe conſolidat wounds.

As touching the Date tree, called Elate or Spathe, it affourdeth for uſe in Phyſicke, the young buds, the leaves, and the barke. The leaves ſerve to bee applied unto the midriffe and precordiall parts, the ſtomacke, liver, and ſuch corroſive ulcers, as hardly will bee brought to heale and skin up. The tender rind thereof incorporat with wax and roſin, healeth all manner of skals, within 20
C daies. The ſame boiled and applied accordingly, cureth the accidents befalling to the cods and genetoires. The very perfume thereof coloureth the haire of the head blacke: and the ſuffumigation fetcheth downe the dead infant out of the mothers bellie. It is given inwardly in drinke for the infirmities of the kidneies, bladder, and precordiall parts: howbeit, an enemie it is unto the head and ſinewes. A decoction or bath thereof, if a woman ſit in it, ſtaieth the immoderat flux both of Matrice and bellie. Likewiſe, the aſhes taken in white wine, are ſingular for the pains and torments of the collicke: as alſo a collution therewith, is as effectuall to cure the fall of the *Vvula and other defects incident to that part.

**Vvulariũ vitijs.* Some read *vũlvarum*, *i.* of the matrice and naturall parts of women.

Chap. vi.

D ❧ *The medicinable vertues conſidered in the flowers, leaves, fruit, boughs, branches, barke, wood, juice, root, and aſhes of many trees of ſeverall kinds.*

IT remaineth now to decipher the manifold medicines which apples & ſuch like fruits tender-skinned, doe affourd, according to the varietie of trees which bring them forth. Of which, thus much in generall is to be noted, That all fruits which ripen in the Spring, while they bee ſoure and harſh, be enemies to the ſtomacke; they trouble the belly, diſquiet the guts and bladder, and withall, be offenſive to the ſinews: but if they be full ripe or ſodden, they are the better. But to grow unto particulars: Quinces if they be boiled, baked, or roſted, are ſweeter and more pleaſant to the taſt, than raw. Yet being throughly ripe upon the tree, although they be eaten raw, they are good
E for thoſe that ſpit and reach bloud, and are diſeaſed with the bloudie flix: ſuch alſo as upon the violent motion of unbrideled chollericke humors void upward and downeward: as alſo for them who be ſubject to continuall looſeneſſe of the bellie, occaſioned by the feeblenes of the ſtomack. Being once boiled or baked, they are not of the ſame operation: for they looſe therby that aſtringent vertue which their juice had. In hote and ſharpe feavers they ſerve for to be applied unto the breaſt. And yet if they be ſodden in raine water, they will doe well in thoſe caſes above recited. But for the paine of the ſtomacke, it matters not whether they be raw, ſodden, or baked, ſo they be reduced into the forme of a cerot, and laid too. Their downe or moſſineſſe which they bear, if it be boiled in wine, and reduced into a liniment with wax, healeth carbuncles. And the ſame maketh
F the haire to grow againe in bald places occaſioned by ſome diſeaſe. Raw Quinces, condited and preſerved in honey, doe ſtirre the bellie, and moove to ſeege. They impart unto the honey a pleaſant taſt, whereby it is more familiar and agreeable to the ſtomacke. But ſuch as being parboiled before, are then kept and confited in honey, bethought good for the ſtomack, in the opinion of ſome, who ordaine and preſcribe to ſtampe them firſt, and then to take them in manner of a meat or conſerve, being incorporat with Roſe leaves boiled, for the infirmities of the ſtomacke.

The

The juice of raw Quinces is a ſoveraigne remedie for the ſwollen ſpleene, the dropſie, and difficul- G
tie of taking breath, when the patient cannot draw his wind but upright. The ſame is good for the accidents of the breaſts or paps, for the piles, and ſwelling veines. The flower or bloſſome of the Quince, as well green and freſh gathered, as drie, is held to be good for the inflammation of the eyes, the reaching and ſpitting of bloud, and the immoderat flux of womens monthly tearmes. There is a mild juice drawn alſo from theſe flowers, ſtamped with ſweet wine, which is ſingular for the flux proceeding from the ſtomacke, and for the infirmitiees of the liver. Moreover, the decoction of them is excellent for to foment either the matrice when it beareth downe out of the bodie, or the gut Longaon, in caſe it hang foorth. Of Quinces alſo there is made a ſoveraigne oyle, which is commonly called Melinum: but ſuch Quinces muſt not grow in any moiſt tract, but come from a ſound and drie ground: which is the reaſon, that the beſt Quinces for this purpoſe H
be thoſe that are brought out of Sicilie. The ſmaller Peare-Quinces called Struthia, are not ſo good, although they be of the race of Pome-Quinces. The root of the Quince tree tied faſt unto the Scrophules or Kings evill, cureth the ſaid diſeaſe: but this ceremonie muſt bee firſt obſerved, That in the taking up of the ſaid root, there be a circle made round about it upon the earth with the left hand, and the partie who gathereth it, is to ſay, What root hee is about to gather, and to name the patient for whom he gathereth it: and then, as I ſaid, it doth the deed ſurely.

The Pome-Paradiſe, or honey Apples called Melimela, and other fruits of like ſweetneſſe, do open the ſtomacke, and looſen the bellie, they ſet the bodie in a heat, and cauſe thirſtineſſe, but offenſive they be not to the ſinewes.

*Orbiculata. The *round Apples bind the bellie, ſtay vomits, and provoke urine. Wildings or Crabs are I
like in operation to the fruits that bee eaten foure in the Spring, and they procure coſtiveneſſe. And verely for this purpoſe ſerve all fruits that be unripe.

As touching Citrons, either their ſubſtance, or their graines and ſeed within, taken in wine, are a counterpoyſon. A collution made either with the water of their decoction, or their juice preſſed from them, is ſingular to waſh the mouth for a ſweet breath. Phyſicians give counſell to women with child for to eat the ſeed of Citrons, namely, when their ſtomackes ſtand to coles, chalke, and ſuch like ſtuffe: but for the infirmitie of the ſtomacke, they preſcribe to take Citrons in ſubſtance: howbeit, hardly are they to be chewed but with vinegre.

*Nonnih, and yet heretofore he named but five. As for Pomgranats, needleſſe altogether it were now to iterate and rehearſe the *nine kinds thereof. Sweet Pomgranats, all the ſort of them, which by another name we called Apyrena, are K
counted *hurtfull to the ſtomacke: they engender ventoſitives, and be offenſive to the teeth and gums. But ſuch as in pleaſant taſt are next unto them, which wee called Vinoſa, having ſmall kernels within, are taken and found by experience to be ſomewhat more holeſome. They do ſtay the bellie, comfort and fortifie the ſtomacke, ſo they be eaten moderatly, and never to ſatisfie the appetite to the full. And yet ſome there be who forbid ſick perſons once to taſt of theſe laſt named: yea, and in no hand will allow any Pomgranats at al to be eaten in a fever; for as much as neither their juice and liquor, nor the carnous pulpe of their graines is good for the patient. In like manner they give a charge and caveat not to uſe them in vomits, nor in the riſing of choller. Certes, Nature hath ſhewed her admirable worke in this fruit: for at the very firſt opening of the rind, ſhe
preſently maketh ſhew of a perfect wine, without apparence of any grape at all, nor ſo much as of L
Muſt, which ordinarily is the rudiment of wine. All Pomgranats, as well ſweet as tart, are clad with a very hard coat and rough rind. And verely, the coat which the ſour kind hath, is much uſed and in great requeſt: and namely the Curriers know full well how to dreſſe their skins therewith: and this is the cauſe, that the Phyſicians name it in Latine *Malicorium. And they would beare us in hand, That the ſame doth provoke urine: as alſo, that the decoction thereof in vinegre, with gall-nuts among, doth confirme and keepe the teeth faſt, which doe ſhake and are looſe in the head. Women with child, and given to longing after a ſtraunge and unreaſonable manner, find much good and contentment hereby: for no ſooner taſt they of it, but the child dooth ſtirre and ſprunt in their wombe. The Pomgranat devided into quarters or parcels, and laid to ſteep and infuſe in raine water, for three daies or thereabout, yeeldeth a good and holeſome drinke for them M
to take actually cold, who are troubled with looſeneſſe of the bodie, occaſioned by a flux from the ſtomacke; and with caſting and reaching up bloud. Of the tart and ſoure Pomgranat, there is a ſingular compoſition, which the Greekes call Stomatice: for that it is a moſt ſoveraigne medicine for the infirmities incident to the mouth: and yet it is as holeſome for the accidents of the

*Dioſcorides affirmeth the contrarie.

*For corium ſignifieth a skin or leather.

noſthrils

A noſthrils and eares, as alſo for the dimneſſe of the eyes, for the troubleſome overgrowing & turning up of the skin and fleſh about the roots of the nailes, for the genetoirs or privie members, for corroſive ulcers which they call Nomæ, and for the prowd fleſh and all excreſcences in ſores. Againſt the poyſon or venome of the ſea-Hare, there is an excellent compoſition made with Pomgranats in this manner: Take the graines or kernils of Pomgranats, after they be deſpoiled and turned out of their outward rind or skin, ſtampe them well, and preſſe out the juice or liquor from them: ſeeth the ſame untill a third part be conſumed, together with Saffron, Roch allome, Myrrhe, and the beſt Atticke honey, of each halfe a pound. Others doe compound and prepare a medicine after another ſort in this wiſe: They take and pun many foure Pomgranats, and draw out of them a juice, which they ſeeth in a new cauldron or pot of braſſe, never uſed before, to the
B thickneſſe of honey: this they uſe in all infirmities of the fundament & privie parts; for all greefs and maladies which be cured with the medicinable juice Lycium: with this they cleanſe eares that run with filthie matter; reſtraine all violent fluxes of humors newly begun, and eſpecially taking a courſe to the eyes; and rid away the red pimples and ſpots that ariſe in any part of the bodie. Whoſoever carieth in his hand a branch of the Pomgranat tree, ſhall ſoone chaſe away any ſerpents. The pill or rind of a foure Pomgranat boiled in wine, and ſo applied, cureth kibes. A Pomgranat ſtamped and then ſodden in three hemines of wine untill one remaine, is a ſingular remedie for the torments of the collicke, and driveth wormes out of the bellie. A Pomgranat torrified in an oven within a new earthen veſſell never occupied before, well ſtopped and covered with a lid; and ſo beeing calcined, and drunke in wine, ſtaieth the flux of the bellie, and aſſuageth the
C wrings in the guts. The firſt knitting of this fruit, when the tree *beginneth to flower, is called by the Greekes Cytinus. Of which there be obſerved ſtrange properties, approoved by the experience of many men: For if any perſon, man or woman; unbraced, unlaced, unpointed and unbuttoned, with girdle looſe, hoſe ungartered, and ſhoes unbuckled, and having not ſo much as a ring about any finger, come and gather one of theſe tender buds or knots, with two fingers onely, to wit, the thumbe and the fourth ring-finger of the left hand; and after this ceremonie performed proceed forward to another, namely, to touch lightly with the ſame bud the compaſſe of the eyes round about, as if the prieſt ſhould ſacre or hallow them; and withall, when this is done, conveigh the ſame into the mouth, and ſwallow it downe whole, ſo as a tooth touch it not: there goeth an opinion, That he or ſhe for certaine ſhall feele no impediment or infirmitie of the eyes that year
D throughout. The ſame knots or young Pomgranats, if they bee dried and beaten to pouder, are very good to keepe downe all excreſcences of ranke fleſh, and bee holeſome for the gums and teeth. Moreover, the very juice drawne out of them after they be ſodden, do faſten the teeth in the head, although they were looſe and readie to fall out before. The very *yong Pomgranats themſelves alone newly knit, and making ſhew upon the tree, if they be ſtamped to the forme of a liniment, are ſingular for any corroſive ulcers, and ſuch as tend to putrifaction. Likewiſe, they bee excellent good in that ſort prepared and applied, for the inflammation of the eyes, and of the entrailes, and in manner for all thoſe occaſions wherein the outward rinds and pils doe ſerve. And here before that I proceed any farther, I cannot ſufficiently admire and wonder at the carefull induſtrie and diligence of our auncients beforetime, which they emploied in the conſideration of
E Natures workes, ſearching as they did into every ſecret, and left nothing behind them unaſſaied and untried: inſomuch, as they tooke regard of thoſe little pretie flowers appearing upon theſe knots or buds beforeſaid, ſuch I meane as breake forth and ſpring, before the Pomgranat it ſelfe is formed, and maketh any apparence; which ſmall bloſſomes as I ſaid before, *are called Balauſtium. For even theſe, as little as they bee, our auncitours have found by their experiments to bee adverſe unto ſcorpions. And true it is, that being taken in drinke, they do reſtraine the extraordinarie flux of womens fleurs: they heale the cankers and ſores in the mouth, the diſeaſes of the Tonſils or Amygdales, and of the Vvula: they doe helpe the ſpitting and reaching up of bloud: they cure the feebleneſſe both of bellie and ſtomacke, with the fluxes thereupon enſuing: they are ſingular beſides for the greevances of the privie members, and for all running ulcers, ſpreading
F in any part of the bodie whatſoever. Moreover, they made proofe of the ſaid flowers dried, and this high magiſterie they found, That beeing beaten to pouder, they cured thoſe of the bloudie flix, who lay at the very point of death upon that diſeaſe; as alſo that there was not a better thing in the world to ſtay any laske or flux of the bellie. Nay, they ſtaied not here (ſo inventive were our forefathers) nor thought much to make triall of the very kernils or ſtones, within their graines, to

ſee

* *Florere incipientis*: rather *defluentis*, according to *Galen*. For then the fruit is ſaid to knit, when a tree ſheddeth the bloſſome.

* *Ipſa corpuſcula*. Some read *Vaſcula*, meaning the veſſels containing the grames.

* Here is *Plinie* out of the way

ſee if they could meet with any goodneſſe therein, for to deliver unto poſteritie and the age fol- G
lowing. And in good faith, they found, That even thoſe as contemptible as they ſeeme, beeing torrified and ſo pulverized, doe helpe and comfort the ſtomacke, if either the meat be ſtrewed or ſprinckled, or the cup ſpiced with the ſaid pouder. And in truth, if they be drunke with rain water, they bind the bodie. The root of the Pomgranat tree, if it bee boiled, yeeldeth a liquour or juice, which being taken in drinke to the weight of a Roman victoriat, [*i.* halfe a denier, or halfe a dram] killeth the wormes in the bellie. The ſame throughly ſodden in water, is of the ſame operation that Lycium is for any purpoſe that it ſhall be put unto.

Finally, there is a wild Pomgranat, ſo called for the reſemblance that it hath to the planted Pomgranat: The roots are red without-foorth, *which being taken to the poiſe of one denier or dram in wine, doe procure ſleepe. The graines or ſeeds in drinke, drie up the waterie humours H
which are gotten betweene the skin and the fleſh, in that dropſie which is called Intercus. To conclude, a perfume made with the rind or pill of a Pomgranat, chaſeth Gnats out of the place, where it burneth.

*I doubt that *Plinie* miſtakes here: and is caried away with the ſimilitude of two Greeke names, to wit, φοινὶξ, *i.* the red wandering Poppie; and φοινὰ the Pomgranat. For ſurely the properties by him aſsigned unto his wild Pomgranat, in ſome ſort accord with thoſe of *Papaver erraticum*, or *Corne Roſe*.

Chap. VII.

Of Peares, and the properties obſerved in them. Of tame Figge trees, and their Figges. Of the wild Figge tree. Of Erineus, and other plants, with the medicines which they affourd.

ALL Peares whatſoever, are but a heavie meat, even to them that are in good health. And I
ſicke folke are debarred for eating them, as well as for drinking wine. And yet if the ſame bee well boiled or baked, they are marvellous holeſome and pleaſant to the taſt, eſpecially thoſe of Cruſtuminum. There is no kind of Peare at all, but if it be ſodden or baked with honey, agreeth with the ſtomacke. Of Peares there be uſually made certaine cataplaſmes, which are ſingular good to diſcuſſe all puſhes, riſings, and pimples upon the bodie: and their decoction ſerveth well to reſolve all hard tumours. Peares in ſubſtance bee a good countrepoyſon againſt venomous Tadſtooles and Muſhromes; for either they drive them down by their very weight and ponderoſitie, or elſe chaſe them out of the ſtomacke, through a certaine ſecret antipathie in Nature, that their juice hath. The wild choke Peares be very late ere they ripen. The manner is to cut them into certaine ſlices or roundles, and ſo to hang them up a drying, for to ſtay the laske and K
knit the bellie; which their decoction alſo will doe ſufficiently, if the patient doe drinke it. The leaves likewiſe, together with the Peare, are uſed to bee ſodden for the ſame purpoſes. The aſhes alſo of the Peare tree *wood, in caſe of peſtilent Muſhromes is of more efficacie than the Peare it ſelfe. Poore jades that carie Apples and Peares upon their backes in paniers, are ſhrewdly loaden: and wonderfull it is to ſee, how heavie they doe weigh, and how a few of them will make the poore beaſts to ſhrinke under their burden: but what is the remedie? Let them eat ſome of thoſe Peares before, or do but ſhew them unto them, they will undergoe (as folke ſay) their load more willingly, and goe away with it more roundly.

*Pyrorum ligni. *Quere*, if he meane not the ſtonie kernils of ſome Pears, which he uſeth otherwhiles to call *lignum*.

The milke or white juice that the Figge tree yeeldeth, is of the ſame nature that vinegre: and therefore it will cruddle milke as well as rennet or rindles. The right ſeaſon of gathering this mil- L
kie ſubſtance, is before that the figs be ripe upon the tree, and then it muſt bee dried in the ſhadow. Thus prepared, it is good to breake impoſtumes, and keepe ulcers open: alſo to bring down the monthly tearmes of women, either applied with the yolk of an egge, or taken in drinke with *Amyl or *Starch pouder. If the ſame be tempered with the flower of Fenigreeke ſeed and vinegre, and ſo applied in maner of a liniment, it helpeth the gout. Alſo it is depilatorie, and fetcheth off haires: it taketh away the skurfe of the eye-lids. In like manner it killeth tettars, ringworms, and any wild ſcabs. It openeth the bodie, and maketh it ſoluble. This Figge-tree milke is naturally adverſe unto the venomous ſtings of Hornets, Weſpes, and ſuch like, but particularly to the pricke of Scorpions. The ſame if it be incorporat with hogs greaſe, taketh away werts. Figge tree leaves and greene figs unripe, reduced into a liniment, doe diſcuſſe and reſolve the Scrophules, called M
commonly the kings evil, yea, and all ſuch nodoſities as are to be mollified. The leaves alſo alone will doe as much. There is another uſe of them beſides, namely, to rub therewith tettars & bald places, which through ſome infirmitie have loſt haire: and generally all thoſe parts that had need to be bliſtered. The tender tops and twigs of Figge-tree braunches are ſingular to cure the biting

of

*Amylo. Dioſc. hath *Amygdala*, *i.* Almonds.

A of mad dogs,if they be applied to the skin where it is broken. The ſame brought to a liniment with honey,healeth the wens or impoſtumations which be called Ceria, yeelding foorth an humor like to honey out of the combe. And if they be tempered with the leaves of the wild Poppie, they draw forth broken ſpils of ſhivered bones. Figg tree leaves ſtamped with vinegre,do reſtrain the venome,occaſioned by the biting of mad dogs. The white tendrils or ſprigs of the black Figtree made into a cerot with wax,and ſo applied,doe cure fellons and the biting of hardiſhrewes. The aſhes made of blacke Fig tree leaves,heale gangrenes, and conſume all excreſcence of dead or proud fleſh. Ripe Figgs provoke urine,make the bellie ſoluble, move ſweat,and bring foorth ſmall pockes and meaſels:In regard of which operation thus to open the pores,they bee unholeſome to be eaten in Autumne or at the fall of the leafe: for when by their meanes our bodies be
B ſet into a ſweat,they are more ſubject to take a through cold. Neither bee they holeſome for the ſtomacke: but the beſt is,their offence continueth but a while. Mary,they are well knowne to be enemies to the voice. The Figgs which be of a later breed(as it were) and come laſt,are wholeſomer than thoſe which ripen betimes.[Whereas verely,if they be brought unto their maturitie by medicining,that is to ſay,by caprification,then they are never good.] And theſe Figges encreaſe the ſtrength of young folke: preſerve elder perſons in better health, and make them looke more young and with fewer wrinckles. They doe quench and allay thirſt, and coole unkind heat. And therefore ſuch muſt not bee denied to the patient,in fevers proceeding from the conſtriction of the pores,which agues the Greekes call Stegnas. Drie Figges offend the ſtomacke: but for the throat and weaſant they are exceeding good. Theſe dried Figs are by nature hote in operation,
C and therefore engender thirſt. They ſet the bellie into a looſeneſſe: in which regard they are not good to bee eaten in any flux or catarrhes, taking a courſe either to it or the ſtomacke. Holſome they be at all times for the bladder, for ſuch alſo as bee ſhort winded and purſie. Semblably,they open the obſtructions of liver,kidneies,and ſpleene,and cure their infirmities. Nutritive they be, and therefore much eating of them cauſeth a man to grow corpulent,& natheleſſe to be ſtrong and luſtie withall: Which is the cauſe,that profeſſed wreſtlers and champions were in times paſt fed with Figs. For *Pythagoras*,a great maiſter and warden of theſe exerciſes,was the firſt man who brought them to eat fleſh meat. Moreover,Figs be reſtorative, and the beſt thing that they can eat who are brought low by ſome long and languiſhing ſickneſſe, and now upon the mending hand and in recoverie. In like manner they are ſingular for the falling evill and the dropſie. Figgs
D applied as a cataplaſm, are excellent either to diſcuſſe or els bring to maturitie any impoſtumes or ſwellings: but they do the feat more effectually,if either quick-lime or ſal-nitre be mixed therwith. Boiled with Hyſſope they cleanſe the breaſt, breake and diſſolve the phlegmatick humors, either fallen to the lungs,or there engendred; & ſo by conſequence rid away an old cough. Soddẽ in wine, and ſo applied as a liniment, they cure the infirmities incident to the ſeat or fundament,they mollifie and reſolve the ſwelling tumours of the paps, they diſcuſſe and heale fellons, puſhes,biles,and riſings behind the ears. A fomentation made with their decoction,is good for women. And the ſame being ſodden with Fœni-greeke, are excellent for the pleuriſie and Peripneumonie,that is to ſay,the inflammation of the lungs. Boiled with Rue, they aſſuage the ventoſities or collicke in the guts. The ſame being incorporat with Verdegreece or the ruſt of braſſe,
E cureth the morimals of the legs: and with Pomgranats,they heale the riſing and exulceration of the fleſh and skin about the naile roots. But made into a cerot with wax,they heale burnes, ſcaldings,and kibed heeles. Seeth Figges in wine with Wormewood and Barly meale,and put nitre to them,they are paſſing holeſome for thoſe who are in adropſie. Chew them,they *bind the bellie. Make a cataplaſme of Figges and ſalt together: the ſame is ſingular for the ſting of ſcorpions. Boile them in wine,and ſo applie them, you have an excellent remedie to draw forth carbuncles to the outward parts,and bring them to an head. Take the fatteſt and fulleſt Figs you can get,lay them upon the ugly and ill favored tumor called Carcinoma, *i.* the Canker,ſo it be not yet exul-
F cerat,I aſſure you it is a ſoveraigne remedie, and hardly can be matched againe: and ſo it is alſo for the feſtering and eating ulcer Phagedæna. There is not another tree againe growing upon the face of the earth that yeeldeth better or ſharper aſhes than the wood of the Figge tree doth, either to cleanſe *ulcers,or to incarnat,conſolidat,and reſtraine flux of humors. It is taken in drink for to diſſolve cluttered bloud within the bodie. Semblably,if it be given to drink with water and oile,of each one cyath,it ſerveth well for thoſe who are drie beaten & bruſed,who are fallen from ſome high place: ſuch alſo as have ſpaſmes and inward ruptures. And thus they uſe to give it in all crampes,

* *Siſtit*, rather *cient*, or *mileſſunt*. διχόθιλα &c. Ex Dioſcor.

* *Vlcera*, out of *Dioſcorides*, though ſome read *aciem*, *i.* the ſight of the eye: which hath no warrant from the author, whom he followeth and would ſeeme to tranſlate.

crampes,and namely,in that univerſall convulſion,which holdeth the bodie ſo ſtiffe, that it can ſtirre no way nor other,as if it were made of one entire peece without any joint.Likewiſe,both taken in drink,and alſo infuſed or injected by clyſtre,it helpeth the flux, occaſioned either by a feeble and rheumaticke ſtomacke,or els by the ulcer of the guts.If a man rub the bodie all over with it & oile together, it ſetleth it into an heat,were it before benummed. A liniment made of it,and wrought with wax and oile roſat together, skinneth a burnt or ſcalded place, moſt finely,leaving no skar at all to bee ſeene. Temper it with oile, and therewith annoint their eies who are pore-blind, ſandblind, or otherwiſe ſhort-ſighted, it amendeth their eye-ſight: and to conclude, rub the teeth often therewith,it preſerveth them white,neat,and from rotting. Thus much of Figge-tree aſhes. G

Moreover,it is commonly ſaid, That if one come to a Fig tree,bend a bough or branch thereof downeward to the ground,and bearing up his head without ſtooping,reach and catch hold of a knot or joint with his teeth,and ſo bite it off,that no man ſee him when he is doing of it; & then lap the ſame within a peece of fine leather,tied faſt by a thred,and hang it about his necke,it will diſpatch the kings evill and ſwelling kernils or inflammations behind the eares. H

The barke of the Figge tree reduced into pouder,mixed with oile,and ſo applied,healeth the ulcers of the bellie. Greene Figges taken raw,ſtamped and incorporat with nitre and meale,take away all werts,whether they bee ſmooth or rough. The aſhes made of thoſe ſhoots that ſpring from the root,is a kind of Antiſpodium,and may goe for Spodium indeed.If the ſame bee twice calcined and burnt,and then mixed with ceruſſe or white lead,and ſo reduced in trochiskes,they make a good collyrie or eye-ſalve,to cure the roughneſſe and exulceration of the eyes.

As many vertues as the mild Figge tree hath, yet the wild is much more effectuall in operation: howſoever ſhe yeeldeth leſſe milke or white juice than the other doth. For a braunch onely of it,is as good as rennet or rindles to make milke turne and run to a cheeſe-curd. Howbeit,that milkie liquor which it hath,if it be gathered and kept untill it be drie and wax hard,ſerveth to ſeaſon our fleſh meats,and give them a good taſt. For which purpoſe it is wont to be mixed and diſſolved in vinegre,and then the fleſh muſt be well rubbed and poudered therwith.The ſame is uſually mingled with cauſticke and corroſive medicines, when there is an intention to raiſe bliſters, and make an iſſue.It cauſeth the bellie to be laxative,and openeth the matrice, if it be uſed with Amyl pouder.Being taken in drinke with the yolke of an egge,it provoketh womens fleurs.Applied in a liniment with the flower of Feni-greeke, it eaſeth the paines of the gout: it cleanſeth the leproſie,and foule wild ſcab: it killeth ring-wormes and fell tettars: it ſcoureth away freckles and ſuch fleckes as diſfavor the face: likewiſe it cureth the parts ſtung with venomous ſerpents, or bitten with mad dogs.Moreover,this juice of the wild Figge tree,applied unto the teeth with a locke of wooll,allaieth their ach: ſo it doth alſo if it be put into them that bee worme-eaten and hollow. The tender young branches,together with the leaves,if they be mingled with Ervile,are good againſt the poyſon of venomous ſea-fiſhes. But then, according to ſome Phyſicians,there muſt be wine added to this receit. The ſaid tender braunches being put into the pot with Eœufe, and ſo boiled together, ſave much fewell, for leſſe fire by farre will ſerve to ſeeth the meat. The greene Figges of this wild Figge tree brought into a liniment,do mollifie and diſcuſſe the kings evill, and all other tumors and apoſtemes. And in ſome meaſure the leaves alſo have the ſame operation:Chuſe the ſofteſt and tendereſt of them,let them be ſtamped and mixed with vinegre, they will cure running ſcals and ſores,eaſe bloudie fals and chilblanes, yea, and ſcoure away filthie ſcurfe or dandruffe. The ſaid greene Figges,together with the leaves,incorporat with hony, doe cure the wens or exulcerat bunches,which yeeld matter out of them reſembling hony: likewiſe they heale the biting of mad dogs.The greene and freſh Figges newly gathered,if they bee laid too with wine, doe heale filthie eating ulcers: and mixed with Poppie leaves, they draw and fetch away broken bones out of the bodie. The greene Figs of the wild Fig tree,doe ſcatter and diſcuſſe inflammations, onely by their perfume,if they be burnt. They are a countrepoyſon, in caſe one have drunke Buls bloud,or ceruſſe: the ſame alſo put away the danger of milke crudled within the ſtomacke,if they be taken in drinke. Likewiſe,ſodden in water,and reduced into a liniment,they cure the riſings and tumors behind the eares.The tender branches and the leaſt green Figges of this wild Figg tree,being taken in wine,are very good for the ſting of ſcorpions: with this charge,that the milkie juice thereof bee inſtilled into the wound,and the leaves laied aloft. The ſame alſo ſerveth for the hardi-ſhrew. The aſhes of the ſmall tendrons being burnt,duly I K L M

applied,

A applied, bring the Vvula againe into the right place, and aſſuage the paine thereof. The aſhes of the very tree it ſelfe, being incorporat with honey, doe cure the rhagadies, fiſſures, and chaps in the feet, or elſewhere. The root boiled in wine, eaſeth the tooth-ach. The winter wild fig-tree; (which beareth fruit late in the yeare) if it be ſodden in vinegre, and ſo ſtamped and brought into a liniment, is ſingular to kill tettars and wild ſcalls. But to prepare this medicine, the wood and boughs of the tree muſt be deſpoiled of the barke, and then ſhaven or ſcraped ſo fine as any pouder or ſaw-duſt, that they may be reduced into an ointment. Yet there is one medicine more belonging to the wild figg-tree, which is admirable and may make a man to wonder at it: If a yong boy not yet undergrowne nor fourteene yeers of age, breake a braunch or bough of the wild fig-tree, and with his teeth doe pill the ſaid braunch, and fetch off the rind before it have gathered
B any downe or moſſe about it; then the marow or pith within the ſaid braunch, if it be taken forth and tied faſt about one that hath the kings evill (ſo that all this be done in a morning before the ſun-riſing) doth repercuſſe and ſmite backe the ſaid diſeaſe, ſo that it ſhall not ariſe and grow. Moreover, this wild figtree hath one ſingular propertie beſides, That if a collar made of the branches thereof be but about a bulls neck, it will make him perforce to ſtand ſtill and not to ſtir, how fell and fierce ſoever he be otherwiſe; ſuch a wonderfull vertue it hath to bridle and keepe under his courage.

Moreover, ſince that the Greeks do tearme this wild fig-tree in their language Erineos, which putteth me in mind of a certaine hearbe called Erineos alſo in their tongue, I cannot will nor chuſe but for affinitie and neighbourhood ſake, deſcribe the ſame in this place; and ſet downe
C the properties and vertues thereof. An hearbe it is, one good handfull high, riſing up commonly with five or ſix little ſtalks or braunches, much like unto Baſill; bearing a white floure, a black ſeed, and the ſame ſmall: which ſeed beaten to powder and medled with the beſt Atticke honey, cureth the rheume which falleth into the eyes and cauſeth them to weep and water continually. As touching the hearbe it ſelfe, if it be applied or uſed accordingly, with a little ſal-nitre put thereto, it is a paſſing good remedie for the paine of the ears. The leaves are a countrepoiſon.

To come now to the Plum-tree: the leaves thereof boiled in wine, are good for the infirmities incident to the amigdals, the gums, and the Vvula, in caſe the mouth be oftentimes waſhed with a collution made of their decoction. Plums themſelves make the bodie ſoluble, and very commodious they are to the ſtomacke; but this benefit continueth but a ſmall while.

D Peaches are much better than plums; and ſo is their juice, principally if it be drawne in wine or vinegre: and verely for a fruit, there is not in the world any more harmeleſſe than it. You ſhall not ſee a fruit againe, to have leſſe ſmell, & more juice within, than the Peach; and yet as liquid as it is, it cauſeth them to be drie and thirſtie who eat thereof. The leaves of the Peach tree, punned and applied, doe ſtaunch bleeding. The kernels of Peaches, incorporat in vinegre and oile to a liniment, and laid too as a frontall, allay the head-ach.

Bulleis, Skegs, and Slone (which are the berries, as it were, or fruit of the wild plum-tree) or the very barke and rind growing to the root, boiled in one hemine or ſmall pint of ſome hard and crabbed wine, untill a third part only remaine, doe yeeld a decoction effectuall to allay the pains of the chollique, and to ſtop the flux of the belly: Of this liquor, a cyath is a ſufficient draught to
E be taken at a time. As well in this wild kind as in planted plumtrees of the hortyard, there is to be found a certain skinnie gum, in Greek called Lichen, which hath a wonderfull operation to cure the Rhagadies or chaps, yea and the ſwelling piles or knobs that appeare in the fundament.

In Ægypt and Cypres both, there groweth the Sycomore, which is a kind by it ſelfe between a fig-tree and a mulberrie tree, as I have before ſaid; the fruit or berries whereof be full of liquor, which ſo ſoone as the uppermoſt rind or pill onely is pared away, appeareth in great abundance: Cut and gaſh them deeper in, they ſeeme drie, after a wonderfull and incredible manner. This juice iſſuing out of them, is a ſingular defenſative againſt the poiſon of ſerpents; a holeſome medicine for the bloudie flix; and * a notable carminative to diſcuſſe and reſolve puſhes, biles, and all impoſtumations. It ſoudereth and healeth up wounds, it allaieth head-ach, and aſſuageth
F the wens or pains of the ears. Such as alſo as be ſplenitick or diſeaſed in the ſplene, find much eaſe and comfort by drinking thereof. Moreover, a liniment made therewith, is good to chauſe and heat thoſe, who chill and quake for extremitie of cold: howbeit, laſt it will not, but breed worms very quickly. Certes, the juice of our mulberries which wee have, is of no leſſe operation and effect; for if it be taken in wine, it is a ſingular countrepoiſon for them who have drunke ei-

* The like is *Emplaſtrum διὰ συκαμίνου*: commended by *Galen*, and deſcribed by *Ægineta*.

ther the juice of Aconit, [*i.* Libard-bane] or ſwallowed a venomous ſpider. The ſame doth looſen the belly, evacuat ſlimie and roping fleame, and expelleth the broad worms and other ſuch vermin engendred in the belly. Of the like efficacie is the barke, if it be pulveriſed and ſo taken in drinke. The leaves boiled in raine water, togither with the bark of the black fig-tree and the vine, doe make a lavature or water to * colour the haire [blacke.] The juice of mulberries doth worke ſpeedily, and provoke to the ſeege: and the very fruit or mulberrie it ſelfe, for the preſent is comfortable to the ſtomacke; it cooleth for the time, but bringeth thirſt with it. If a man eat them alone, or laſt, and lay no other meat upon them, they ſwell in the ſtomacke and be very flatuous. The juice drawne out of unripe mulberries, are of vertue to bind the belly. In ſumme, there be ſtraunge and woonderfull properties worthy to be obſerved in this tree, which ſeemeth to have ſome ſenſe and underſtanding, as if it were a living and ſenſible creature, whereof I have alreadie * written more at large in the deſcription of it, and the nature thereof. There is a notable * compoſition made of mulberries, reſpective to the mouth and throat, called thereupon Panchreſtos Stomatice, and by another name, Arteriace: the receit and making whereof, is in this manner; *Recipe*, of the juice drawne out of mulberries, three ſextars, ſeeth it over a gentle and ſoft fire [or rather let it ſtew in balneo Mariæ] untill it be reduced to the conſiſtence of hony: afterwards put thereto of verjuice made of dried grapes, the weight of two * deniers or drams; of myrrhe, the poiſe of one denier; of ſaffron likewiſe, one dram or denier. Let theſe ingredients (I ſay) be firſt beaten to powder (ſuch I meane as need pulveriſing) and ſo mingle them togither with the foreſaid decoction, and put it up for your uſe. A better and more pleaſant medicine there is not, for the mouth, the windpipe, the uvula, and the ſtomacke. There is another way of making it in this ſort, Take of the juice aforeſaid, the quantitie of * two meaſures called ſextars, of Attick honey one ſextar, ſeeth them togither as before. Many marvails beſides are reported of this tree, of which I will give you a little taſt: Spie where the little mulberries that ſhall be are newly knit, to wit, when the tree firſt buddeth and before the leaves be fully out; gather their young knots of the fruit toward, which the Greeks call Ricinos, but in any caſe with the left hand; take heed alſo that they touch not the ground, howſoever you doe: and if when you have obſerved theſe circumſtances, you weare them about your wreſts, hang them about your necke, or otherwiſe tie them about you, be ſure they will ſtaunch bloud, whether it guſh down from your noſthrils, flow out of a wound, run out of the mouth, or iſſue by the hæmorrhoid veins. And in truth, folke uſe to keepe theſe little buds or knots very carefully for this purpoſe. The ſame vertue and operation the braunches have (as they ſay) but then they muſt bee broken from the tree at the full of the moon, when they begin to knit & give ſome hope of fruit: and if the ſame touch not the ground, then they have a ſpeciall propertie reſpective unto women, for to reſtrain the immoderat flux of their monthly terms, being tied or faſtened to their arms. And it is thought, that they worke this effect, if the woman her ſelfe do gather them at any time whenſoever; provided alwaies, that the braunch in any wiſe touch not the ground, and that ſhe weare it faſt about her in manner aforeſaid. The leaves of the mulberrie tree ſtamped greene, or beeing drie and boiled, ſerve in a cataplaſme to be applied unto thoſe places which are ſtung by ſerpents. The ſame good they do alſo, if they be taken in drinke. The juice of the barke which grew to the root, if it be drunke either in wine or oxycrat, [*i.* vinegre and water togither] is ſingular againſt the pricke of ſcorpions. But here I muſt ſet down the compoſitions that our auncients deviſed and made of mulberries: Firſt and foremoſt, They took a quantitie of the juice preſſed out of mulberries, as well ripe as unripe, which they ſod in a braſſe pan, unto the conſiſtence or thickneſſe of honey. Some uſed to put thereunto, myrrhe and cypreſſe, ſetting all to frie and take their fermentation in the ſun, untill it grew to hardneſſe in the foreſaid veſſell, ſtirring it thrice a day with a ſpatule: This was the ſtomaticall medicine of the auncients, which they uſed alſo in healing and skinning up wounds. And yet there was another kind made after this ſort: They preſſed forth the juice of the unripe mulberries, but firſt they let the ſaid fruit to be very well dried, and this ſerved them in lieu of ſauce, which gave an excellent taſt to their other meats. In Phyſick alſo, they employed it much, namely, about corroſive and eating ulcers, and for to evacuat tough fleame out of the breaſt: they uſed it alſo as need required, as an aſtrictive, to corroborat the noble and principall parts within the bodie. It ſtood them alſo in good ſtead for collutions, to waſh the teeth withall. Moreover, a third kind of juice they had, which they drew from the leaves and roots after they were well boiled: and with this juice and oile togither, they were woont to annoint any burnt or ſcalded place

of

Tingunt capillum: for the black colour was in moſt requeſt in thoſe daies.

* *Lib. 16. ca. 25.*

* *Diamorum*, or the compoũd ſyrrup of mulberries.

* *Pondus X duorum.*

* Somewhat under two wine quarts with us.

G H I K L M

A of the bodie: for which purpoſe, the leaves alſo they applyed alone without more adoe. As touching the root of the mulberrie tree, it yeeldeth in harveſt time (by way of inciſion) an excellent juice for the tooth-ach, for biles, and impoſtumes, eſpecially ſuch as are growne to ſuppuration, and be at hand to breake: the ſame purgeth the belly. The leaves of the mulberrie tree infuſed and ſoked in urine, fetch off the haire from thoſe skins which are to be courried & dreſſed.

Cheries looſen the belly, and be hurtfull to the ſtomacke: yet, if they be hanged up and dried, they doe bind the bellie, and provoke urine. I find a notable experiment in ſome authours, That if a man eat cheries ſtones and all in a morning, new gathered from the tree with the dew upon them, they will purge ſo effectually, that he ſhall find himſelfe cleane rid from the gout of the feet, if he were diſeaſed that way.

B Medlars, all of them, except thoſe great ones called Setania (which in deed are more like to apples) doe cloſe up the ſtomacke, and bind the belly. In like manner Sorveiſes, if they be dried; for being freſh and new gathered, they bee good to ſcoure and ſend excrements ſpeedily out of the ſtomacke and belly both.

Chap. XVIII.

Of Pine-nuts, or Pine-apples: of Almonds, Filberds, and Hazell-nuts: of Walnuts, Fiſticks, Cheſtnuts, Carobs, and Cornoils. Of the fruit of the Arbut or Strawberrie tree, and the Bay.

C THe Pine apples or nuts, which have roſin in them, if they be lightly bruiſed, and then ſodden to the halfe in water, with this proportion, to wit, one ſextar of water to every ſuch apple, do yeeld a decoction ſingular good for ſuch as reach and ſpit up bloud; ſo that the Patient drinke two cyaths thereof at one time. The decoction likewiſe of the Pine tree barke boiled in wine, is given to drink for the pains and torments in the belly. The kernels of the Pine-nuts quench thirſt; they pacifie and ſtill the frettings and gnawings of the ſtomack: they rectifie the corrupt and putrified humors there ſetled and bedded: they ſtrengthen weake bodies in maner of a reſtorative, and are right good and agreeable to the reins and bladder: howbeit they ſeeme to exaſperat the throat, and to encreaſe a cough. Being taken inwardly, either in water, wine, ſweet cuit, or the decoction of *Dates or Tamarinds, they purge cholerique humours. When
D the gnawing gripes within the ſtomacke bee exceeding violent and painefull, it is good to mix therewith Cucumber ſeed and the juice of Pourcellane: likewiſe in caſe either bladder or kidnies be exulcerat: for diureticall they be alſo, and provoke urine.

Balanorum decoctio.

Touching the bitter Almond tree, the decoction of the roots thereof, doth ſupple the skin and lay it even and ſmooth without wrinkles; it embeliſheth the viſage with a freſh, lively, and cheerefull colour. The bitter Almonds themſelves bring folke to ſleepe, and get them appetit to their meat: they moove urine, and ſtir the ordinarie courſe of womens monthly fleurs: they ſerve in a liniment for the head-ach, eſpecially in fevers; but if the ſaid head-ach come by occaſion of drunkenneſſe or a ſurfet of wine, they would be applied with vinegre, oile roſat, and a ſextar of water. They have a propertie to ſtanch bleeding, mixed with amylfloure and mints. They
E are good in a lethargie, and the falling ſickneſſe, if the head bee therewith annointed all over. They cure the angrie night-foes, called chilblans and bloudyfalls: applied with cold wine, they cure ulcers which grow to putrifaction; and with honey, the bitings of mad dogs: they take away the ſcales and dandruffe about the face, if ſo be there have been uſed before ſome convenient fomentation to prepare the skin for this medicine. An almond milke drawne with water, and taken as a drinke, eaſeth the pains of the liver and kidnies. Bitter Almonds reduced into a loch with Terpentine, worke the ſame effect, ſo that the Patient bee often licking thereof. For thoſe who be troubled with the ſtone and gravell, with difficultie alſo of piſſing, they be very effectuall if they be taken with ſweet wine cuit: alſo beaten with honyed water, they are ſingular to cleanſe the skin, and make it looke neat and faire. Reduced into the forme of a loch with honey, they be
F holeſome for the liver, good to ripen and diſpatch a cough, & excellent for to mitigat the pains of the cholique: and this electuarie muſt be taken, to the quantitie of an hazell nut at a time, with a little ſauge put thereto. It is ſaid, that our luſtie toſſe-pots and ſwill-bolls, if they eat foure or five bitter almonds before they ſit them downe to drinke, ſhall beare their liquor well, and never be drunke, quaffe they and poure they downe as much as they will: alſo, that if foxes chance

to eat of them, and cannot come by water neare at hand to lap, they will die thereof. Sweet al- G
monds are not so medicinable as the bitter, and yet they be purgative, absterſive, and diureticall. If they be new and freſh, they charge and ſtuffe the ſtomacke.

Hazle nuts and Filberds, otherwiſe called the Greekiſh nuts, beeing taken in vinegre with wormwood ſeed, cure the yellow jauniſe, as it is commonly ſaid: and a liniment made with them, doth helpe the diſeaſes incident to the ſeat, and particularly the piles and ſwelling bigs there appearing. The ſame medicine is good for the cough, and ſuch as ſpit and caſt up bloud.

As for Walnuts, the Greeks have given them a * name importing as much as the heavineſſe of head; and not without good cauſe, for the very ſhade of the tree and the ſent of the leaves, do pierce & enter into the head: ſo do the kernels alſo in leſſe while, if they be eaten: now the newer they be, the more pleaſant taſt they have: the drie are more oily and unctious, hurtfull to the H
ſtomacke, hard of digeſtion, cauſing headach, naught for them who have a cough, and for ſuch as would vomit in a morning faſting: good only in that trobleſome running to the ſtoole and ſtraining for nought, by reaſon of their propertie to evacuat fleame. The ſame beeing eaten before meat, doe dull the force of any poiſons: they helpe the ſquinancie alſo, applied with rue & oile. Adverſe and contrarie they are to the nature of onions, and doe keepe downe and repreſſe their ſtrong ſmell which riſeth from them, after a man hath eaten them. Applied with a little honey, they are thought to be very good for the inflammation of the ears; and with rue, for the breaſts and paps; as alſo for diſlocations and parts out of joynt. But if they be uſed with onions, ſalt, and honey, they are ſingular for the biting both of dog and man. The ſhell of a wallnut, is thought to be of a cauſtick qualitie, and good to burne or ſeere an hollow tooth: the ſame being burnt, pul- I
verized, and incorporat with oile or wine, ſerveth to annoint the heads of yong babes for to make the haire grow thicke: and in that maner it is uſed to bring the haire againe of elder folke, when through ſome infirmitie it is ſhed. The more Walnuts that one eateth, with more eaſe ſhall hee drive worms out of the belly. Walnuts that have been very long kept, doe cure carbuncles, gangrens tending to mortification, and reduce the blacke and blew ſpots (remaining after ſtripes) to their owne colour. The barke of the walnut tree, is a ſoveraigne remedie for the bloudie flix, and the foule tettars or ringworms. The leaves bruiſed and ſtamped with vinegre, and ſo applied, put away the paine of the eares. After that *Mithridates* (that moſt mightie and puiſſant king) was vanquiſhed, *Cneus Pompeius* found in his ſecret cloſet or cabinet, among other pretious jewels, the receit of a certain antidot or preſervative againſt poiſon, ſet downe under the hand of the ſaid K
prince, in a privat note-booke of remembrances, in this manner following: Take two drie walnut kernels, as many figs, of rue, twentie leaves: ſtampe all theſe togither into one maſſe, with a grain or corne of ſalt among. Vnder which receit, was thus much ſubſcribed, Whoſoever uſe to eat of this confection in a morning next his heart, there ſhall no poiſon hurt him that day. It is ſaid moreover, that the kernels of walnuts chewed by a man or woman faſting, doe cure the biting of a mad dog, ſo that the place be annointed and dreſſed therewith.

But to returne againe to Hazle nuts and Filberds, they doe cauſe head-ach, they breed wind in the ſtomacke: and a man would not thinke nor beleeve how ſoone they will make one fat, but that experience approoveth it. If they bee roſted or torrified, they cure a rheume: and if they be beaten to powder, and given to drinke in honeyed water, they rid away an old cough that hath L
ſtucke to one a long time: ſome put thereto certaine pepper cornes, and others drinke them in wine cuit that is ſweet. Fiſticks are uſed in the ſame ſort, and have the ſame operation and effects as the Pine-nut kernels have: Over and above, they are ſoveraigne for the ſting of ſerpents, whether they be eaten or taken in drinke.

Cheſtnuts be exceeding aſtringent, and mightily ſtay all fluxes both of the ſtomacke and the belly: for ſuch as ſcoure overmuch and have * a great laske upon them: alſo for them who reach up bloud, they be paſſing holeſome; and withall, nutritive and breeding good faſt fleſh.

Carobs, which be freſh and greene, are hurtfull to the ſtomacke, and do looſe the belly; yet the ſame, if they be dried, do bind, and are more holeſome for the ſtomacke: diuretical they be alſo, and provoke urine. As for thoſe Carobs or Cods of Syria, ſome uſe to ſeeth three of them M
in a ſextar of water untill halfe be conſumed, and drinke that juice or liquor thereof for the paine of the ſtomacke. If a man take the greene twigs of a Corneil tree, there will (by the meanes of a red hot plate or ſlice of yron ſet unto them) ſweat or frie out a certain liquid humor, which muſt be received ſo, as no wood touch it: the ruſt of yron beſmeared with this liquor, cureth foule tettars

* κάρυον, of κάρη. i. the head: like as in Latine, *Nux*, à *nocendo*.

* *Alvo cite*, and not *alvũ cient.*

A tars and ringworms called Lichenes, if they be taken at the firſt before they have run far. The Arbut or Strawberrie tree, otherwiſe named Vnedo, beareth a fruit hard of digeſtion, and offenſive
2 to the ſtomacke. The Lawrell, both leafe, barke, and berrie, is by nature hot; and therefore it is agreed among all writers, That their decoction, eſpecially of the leaves, is comfortable to the bladder and naturall parts of women: the ſame being applied as a liniment, be ſingular good for the pricke or ſting of waſps, hornets, and bees; and likewiſe againſt the poiſons of ſerpents, eſpecially of the viper, & Seps otherwiſe called Dipſas. Boiled with oile, they are good to bring down womens fleures. The tender leaves of the Bay ſtamped, and mixed with groſſe barley meale or groats, cure the inflammations of the eies: with rue, they helpe the hot tumors and ſwellings of the cods: but incorporat with oile roſat, or with oile of Ireos or floure-de-lis, they aſſuage the
B head-ach. Whoſoever doth chew and ſwallow downe three Bay leaves, for three daies togither, ſhall be delivered by that means from the cough. The ſame, if they be beaten to powder and reduced into an electuarie or loch with honey, are good for ſuch as be purſie and labour for wind. The barke or rind growing to the root, is daungerous for women great with child, and ſuch muſt
2 take heed how they meddle with it. The very root it ſelfe, breaketh or diſſolveth the ſtone, and is holeſome for the liver, if it be taken to the weight of three oboli in odoriferous wine. Bay leaves given doe drinke, doe provoke vomit. Bay berries bruiſed and ſo applied, or otherwiſe pulveriſed and taken in drinke, draw downe the iſſue of womens terms. Take two Bay berries, rid or cleanſe
2 them from their huske and drink them in wine, it is a ſingular medicine for inveterat coughs, and the difficultie or ſtraightneſſe of breath, when a man is forced to ſit upright for to fetch and de-
C liver his wind: howbeit, if the Patient be in a fever, it is better to take theſe berries in water; or els by way of a loch or electuarie, after they have been ſodden in honeyed water or ſweet cuit. And in this manner they be good in aphthiſicke or conſumption of the lungs, and all catarrhs which fall to the pectorall parts; for they ripen fleame, and ſend it out of the cheſt. Foure Bay berries drunk with wine, are a good remedie for the ſting of ſcorpions. The ſame being brought to powder and reduced into a liniment with oile, and ſo applyed, doe heale the bloudy-falls called Epinyctides; rid away freckles and pimples; cure running ſcalls and ulcers, cankers and ſores in the mouth; and cleanſe the bodie of ſcurfe, ſcalls, and dandruffe. The juice drawne out of Bay ber-
2 ries, killeth an itch that fretteth the skin, and beſides, the lice that crawle and ſwarme all over the bodie. The ſame, mingled with old wine and oile roſat, and ſo dropped into the ears, cureth their
D paine and deafeneſſe: and whoſoever be annointed all over therewith, need feare no venomous things, for they will flie from them. The ſame juice, eſpecially if it be drawne from the berries of that Lawrell which hath the ſmaller and thinner leaves, may be taken in drinke, and ſo it is effectuall againſt all ſtings. The berries drunke in wine, withſtand the venome of ſerpents, ſcorpions, and ſpiders. Brought into a liniment with oile and vinegre, and ſo applied, they helpe the ſplene and liver; but with hony, they heale gangrens. Such as be wearied with travaile, or otherwiſe ſtiffe and benummed with cold, find much good by being annointed with the ſaid liniment or juice, if ſome ſal-nitre be put thereto. Some are of opinion, That if a woman in labour drinke the quantitie of one acetable of the Lawrell root in water, ſhee ſhall have the more ſpeedie deliverance: and for this purpoſe (they ſay) that a freſh and greene root is better than a drie. Others preſcribe,
E to give in drinke ten Bay berries againſt the pricke of ſcorpions. Alſo when the Vvula is falne, ſome give counſell to take three ounces of the leaves and berries, and ſeeth them in three ſextars of water to the thirds, & to gargarize with this decoction hot: alſo for the head-ach, to take ſome odd number of Bay berries, and ſtampe them with oile into a liniment, and therwith to annoint the forhead and temples, as hot as the patient can well abide it. The leaves of the Delphick Lawrell beaten to powder, and held to the noſe and ſmelled unto ever and and anon, ſerve for a good preſervative in time of the contagious peſtilence; and the rather, if they bee burnt, their perfume doth rectifie the infection of the aire. The oile of the ſaid Bayes of the Iſle Delphos, is good for to make thoſe cerots which put away laſſitude & wearineſſe, to diſcuſſe and reſolve the cold humors which cauſe quivering and quaking, to mollifie and ſtretch the ſinewes, to allay the
F pain of the ſides in a pleuriſie, and laſt of all to drive away the cold fits of agues. Semblably, if the ſame be warmed in the rind of a Pomegranat, and inſtilled into the ears, it eaſeth their pain. The leaves boiled in water to the conſumption of a third part, keep up the Vvula, uſed by way of a gargariſme: but the ſaid decoction taken inwardly, allayeth the pains of belly and guts. The tendreſt leaves that may be had, ſtamped with wine into a liniment, doe repreſſe and keepe down wheals

and itching, if the bodie be annointed therewith every night. Next unto this, the other kinds are G
to be raunged according to the validitie of their operation. As for the Lawrell Alexandrica or Idæa, if a woman in travaile of child-birth take three deniers weight of the root, and drinke the same in three cyaths of sweet wine, she shall be quickly delivered and brought to bed. The same drinke sendeth forth the after-birth, and provoketh womens monthly terms.

Daphnoides, or the wild Lawrell (or call it by any other of those names before rehearsed) hath many good vertues: It purgeth the belly, if you take the leafe either greene or drie, to the weight of three drams with salt, in hydromel or honyed water: being chewed, it draweth downe phlegmaticke and waterie humors. The leafe also mooveth to vomit, and is offensive to the stomack. The berries likewise be purgative, if a man take five or ten of them at once.

H

Chap. ix.

Of the tame or gentle Myrtle tree planted. Of Myrtidanum, and the wild Myrtle.

OF garden Myrtles, the white is not so medicinable as the blacke: the fruit or berries of the Myrtle, helpe those that reach up bloud: taken with wine, they put by the danger of venomous mushroms: chew them in your mouth, your breath will bee the sweeter for it two daies after. It appeareth by the Poët *Menander*, that the good-fellows Synaristeusæ were woont to eat Myrtle berries. The weight of one denier in wine, is good for the bloudie flix. If they have a little sivering or waulme over the fire in wine, they make a good water or liquor to cure untoward ulcers to heale, especially such as be in the extreame parts of the bodie. Of them and barley I
groats, there is made a cataplasme for bleered eies: for the fainting also and trembling of the heart, being applied to the left pap or breast. In like manner, the same beeing used with pure undelaied wine, is singular for the pricke of scorpions: for the infirmities of the bladder, the headach, and the apostemations betweene the angle of the eies and the nose, if they be taken before they yeeld filthie matter: and so they cure other tumors or swellings: and if their pepins or kernels be taken foorth, and then incorporat with old wine, they be singular for the small pocks and meazles. The juice of Myrtle berries bindeth the belly, but provoketh urine. A liniment also is made thereof with wax, for the said pocks and meazles: also against the sting of the venomous spiders Phalangia. The said juice doth colour the haire black. Of the same Myrtle there is an oile made, more lenitive and mild than the juice or liquor above-named: and yet there is a wine of K
Myrtles more kind and gentle than it, which will never overturne the brain or make one drunke. The same, if it have lien and bee stale, bindeth the belly and staieth a laske: it strengtheneth the stomacke also, and represseth vomits: it assuageth the griping paines in the guts, and restoreth appetit to meat. The powder of drie Myrtle leaves, restraineth sweats, if the bodie bee strewed therwith, though it were in a fever. The same powder is good for the feeblenesse of the stomack, and the flux from thence proceeding: it reduceth the matrice into the right place, when it beareth downe out of the bodie: it cureth the infirmities of the seat; healeth running scalls and ulcers; warisheth S. *Anthonies* fire, and the shingles, being used thereto in some fomentation; retaineth and staieth the haires readie to shed; scoureth away dandruffe; drieth up wheals, pocks, and meazles; and last of all, skinneth burns and skaldings. The powder entreth into those unguinous or oleous plasters which the Greeks call Liparas. And such a kind of plastre in like maner as the oile of these Myrtle beries, is most effectuall in those sores which light upon moist parts, as for example, the mouth, and the matrice. The leaves in substance, beaten to powder and tempered with wine, are a countrepoison against venomous mushroms; but incorporat with wax into a liniment, they do ease the gout of any joints, and drive backe risings and impostumations. The same leaves boiled in wine, are given to drinke for the bloudie flix, and the dropsie. When they be dried and brought into powder, they serve to cast and strew upon ulcers; also to restraine any bleeding. They scoure away freckles, and such like spots of the skin: they heale the rising, overgrowing, and parting of the skin about the naile roots; also whitflaws, chilblanes, piles, and swelling biggs in the fundament; the accidents befalling to the cods; filthie maligne and morimall M
ulcers; and last of all, burns (applied in manner of a cerot.) For the ears running with filthie matter, there is good use of the leaves burnt; also of their juice and decoction. The same are likewise burned, to serve for certaine antidots or countrepoisons. In like manner, to the said purpose the tender sprigs of the Myrtle with the floure upon them, are gathered and calcined within an

oven,

A oven, in a new earthen pot, well covered and cloſe luted: after which they bee reduced into pouder, and mixed with wine. The aſhes of the leaves burnt, healeth burnes. To keepe the ſhare or groine from ſwelling, although there bee an ulcer there, it is ſufficient, if the partie have about him a ſhoot or braunch onely of the Myrtle; provided alwaies, that it touched neither yron nor the earth.

As touching Myrtidanum, how it is made I have ſhewed alreadie. Applied unto the matrice or naturall parts of a woman either by way of fomentation or liniment, it doth much good. And much better, if it be made with the barke, leafe, and berrie of the Myrtle. Moreover, of the ſofteſt leaves braied and ſtamped in a morter, there is a juice preſſed foorth, by pouring greene wine by little and little among, and otherwhiles raine water: which is uſed much for the ulcers and ſores
B of mouth, ſeat, matrice, and bellie: to die the haire blacke: to waſh and *bath the arme-holes with: to ſcoure away ſpots and freckles: and in one word, when and whereſoever there is need of aſtriction.

*Alarum perfuſiones.

The wild Myrtle or Oxymyrſine, called alſo Chamæmyrſine, differeth from the civile and gentle Myrtle, in the redneſſe of the berries, and the ſmall grouth. The root is highly eſteemed: for boiled in wine, and ſo taken it drinke, it cureth the paine in the raines, the difficultie of urine, eſpecially when it is thicke, and of a ſtrong ſavour. The jaundiſe alſo it helpeth, and cleanſeth the matrice, if it be brought into pouder, and mixed with wine. The young and tender buds eaten after the manner of Sperage crops with meat, firſt roſted in the embers; the ſeed likewiſe taken in wine, oile, or vinegre, breake the ſtone. The ſame ſeed ſtamped and drawne with vinegre and oile
C roſat, allaieth the head-ach; but in drinke it cureth the jaundiſe. *Caſtor* called Oxymyrſine (with the ſharpe prickie leaves like the Myrtle, and wherewith beeſomes be made) by the name of Ruſcus, and ſaith it hath the ſame properties. Thus much for planted trees, and their medicinable vertues, proceed we now forward to the wild.

D

THE XXIIII. BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

E

¶ The Proëme.

CHAP. I.

& Medicinable vertues obſerved in wild Trees.

F NAture, that ſacred and bleſſed mother of all things, willing and deſirous that man, whom ſhe loveth ſo well, ſhould find every place ſtored with proper & convenient remedies for all maladies incident unto him; hath ſo diſpoſed of her works, and taken that order, that the rough woods and forreſts, even the moſt hideous parts of the earth, and fearefull to ſee unto, be not without their plants medicinable. Nay the very wilds and deſerts are enriched and furniſhed therewith: inſomuch, as in every coaſt and corner of the world there may be obſerved both ſympathies and antipathies (I meane thoſe naturall combinations and contrarieties in thoſe her creatures.) From whence proceed the greateſt miracles which are to be ſeene in this round fabrick and admirable frame.

frame. For first and formost, the Oke and the Olive tree beare such mutuall rancour and mallice (as it were) and are so stiffely bent to warre one with another, that if a man replant one of these trees in the trench or hole from whence the other was taken up, it will surely die. Also, if an Oke be set neare unto a Walnut tree, it will not live. The Colewort and the Vine hate one another to the very death; in such sort, that if a Vine stand neare unto it, a man shall sensibly perceive the same to shrinke away and recule backward from it: and yet this wort, which maketh the vine thus to retire and flie, if it chaunce to grow overagainst Origan or Cyclamine, will soone wither and die. Moreover, it is commonly said, That trees in the forrest fully growne, which have stood many a yeare, and namely such as are readie to be fallen and laid along for timber, prove harder to be hewed and sooner wax drie, if a man touch them with his hand before hee set the edge of the ax to their butt. And some say, that pack-horses, asses, and other labouring beasts which have Apples and such like fruit aload, will quickly shrinke and complaine under their burden, yea, and presently run all to sweat (carrie they but a very few to speake of) unlesse the said fruit, wherewith they are to be charged, be first shewed unto them. Asses find great contentment and good by feeding upon Fennell-geant or Ferula plants: and yet, to horses, garrons, and other beasts of cariage and draught, they are present poyson, if they eat them: which is the cause, that the Asse is a beast consecrated unto the god *Bacchus*, as well as the foresaid plant Ferula. Over and besides (see the admirable operation in Nature) the very insensible and liveleſse creatures, yea, the least that be, meet every one of them with some contrarie thing or other, which is their bane and poyson: For, as our cookes know well ynough, the inner barke of the Linden tree slived thin into broad flakes and fine boulted flower together, doe drinke and suck up the salt of viands, overmuch poudered, and make it fresh againe. Likewise, salt giveth a good rellish to any meat that is over sweet, and tempereth those that have a lushious and wallowish tast. If water be nitrous, brackish, & bitter, put some fried Barley meale into it, within two hours and lesse it will be so well amended and sweet, that a man may drinke thereof: and this is the reason that the said Barley meale is put ordinarily in those strainers and bags through which wines doe passe, that thereby they may be refined and drawne the sooner. Of the same operation also and effect there is a kind of chalke in the Island of Rhodes: and our cley here in Italie will doe as much. Thus you see what enmitie & discord there is in some things. Contrariwise, wee may observe in others, how wonderfully they accord and agree together: For pitch will dissolve, spread, and be drawne out with oile, being both as they are of a fattie nature; oile alone will incorporat and mingle well with lime: and they hate water, the one as well as the other. Gums are sooner dissolved and more easily tempered with vinegre than with any thing els; & inke with water: besides an infinit number of other such, which I shall have occasion to write of continually in their due places. And indeed, this is the very ground and foundation of all our Physicke. For (to say a truth) Nature ordained at the first such things and none but such, for to be the remedies of our diseases, which wee feed and live daily upon; even those which are soone found and as soone prepared, which bee readie at hand, common every where, and cost us little or nothing at all. But afterwards the world grew to bee so full of deceit and cousenage, that some fine wits and nimble heads devised to set up Apothecarie shops, promising and bearing us in hand, that every man might buy his life and health there for money. Then anone a sort of compositions, mixtures, & confections were set on foot, then there was no talke but of strange and intricat receits, and these were bruited abroad for the only medicines, of wonderfull and unspeakeable operations. So that now adaies we use no other drugs but those that come from Arabia and India. And if a man aile never so little, or have the least push or wheale about him, hee must have some costly Physicke forsooth for it: and a plastre that came from as farre as the red sea: whereas in truth, the right remedies appropriat for every maladie, be no other than such as the poorest man that is feedeth upon every night ordinarily at his supper. But if we went no farther than to the garden for medicines, and sought after hearbes, shrubs, and plants onely, for to cure our sickneſse or maintaine our health, certes there were not a baser occupation in the world than the profession of Physick, and Physicians would be nought set by. But will you have the truth? To this passe are we come, the old world we have bidden farwell unto: the auncient manners and rites of Rome citie are dead and gone; our state is grown so much in greatneſse, as there is no goodnes left. Our victories and conquests bee these, and nothing els, which have vanquished and subdued us: for subject we must acknowledge our selves to strangers and forraine nations, so long as Physicke (one of their arts) is able to command our commanders,

A ders,and overrule our Emperours.But the discourse of this matter in more ample manner,I will reserve to some other time and place.

Chap. II.

Of Lotos.

AS touching the hearbe*Lotos,the Ægyptian plant likewise of that name: as also, of another tree about the Syrtes so called, I have written sufficiently in their due places. As for this Lotos,which our countreymen call in Latine the Greekish Beane,hath a property for to bind and knit the flux of the bellie,with the fruit or berries which it beareth. The shavings or
B scrapings of the wood therof,boiled in wine,and so taken inwardly,cure the bloudie flix and exulceration of the guts; represse the immoderat flowing of womens months; helpe the dizzinesse and swimming of the braine; and those who be subject to the falling sickenesse. The same decoction also*keepeth the haires from shedding,if the place be bathed therewith. But wonderfull it is, that these small shavings should be so bitter,as nothing more, when the fruit it selfe is as sweet as any other.Moreover,of the fine dust sawed or filed from this wood,sodden in Myrtle water, then kneaded and wrought into paste, and so reduced into severall trochiskes,there is a soveraine medicine made for the bloudie flix: if the patient drinke the weight of one Victoriat or halfe dram of these troches in three cyaths of water.

* Called otherwise *Cola casia* and the Ægyptian Beane.

* *Cohibent capillum. Dioscor.* hath ξηρᾶίζει, *i. Rufans, i.* colloureth them yellow.

C

Chap. III.

Of Mast.

ACorns or Mast of the Oke, beaten to pouder, and incorporat with Hogs lard salted,heale all those hard and swelling cankerous ulcers, which they call in Greeke Cacoëthe. In all these trees bearing Mast, the very substance of the wood is more forcible than the fruit;
3 the outward barke more than the wood; and the inner rind or tunicle under it, more than the barke or all the rest.This membrane or pellicle if it bee boiled,is singular for the flux of the stomacke,proceeding of weakenesse. The very Mast or Acorne it selfe reduced into a liniment and applied,staieth the bloudie flix. And the same resisteth the venom of serpents stings,restraineth
D rheumes and catarrhes, and namely that flux of humors which causeth apostemations. As well the leaves,the mast or berries of this tree,as the barke or juice drawn from it,after boiling,are excellent against the poysons called in Greeke Toxica. The barke sodden and brought into a liniment with Cow milke,is very good to bee applied unto the place where serpents have bitten or stung: it is given also in wine for the bloudie flix.Of the same vertue & efficacie is the Holm-oke.

Chap. IIII.

Of the [Scarlet] graine of Holme-oke: of Gals and Misselto: of certaine little bals growing upon the Oke: of Mast: of the root of *Cerrus: and of Corke.

* The great Holme Oke.

E THe *Skarlet grain growing upon the Oke-holme,is very good to be laid unto fresh wounds with vinegre.It is applied with water for the flux of waterie humors unto the eyes: and dropped likewise into them when they be bloudshotten.Now there is a kind of it growing commonly in the region of Attica and throughout Natolia,which very quickly turneth to be a grub or maggot (whereupon it is called Scolecion) and is rejected,as being of no worth. Many more sorts there be of it,whereof the cheefe and principall I have shewed alreadie.

* *Coccum Ilicis*, our Kermes, or Kutchenel,as some thinke.

As touching the Gall-nuts,I have likewise made of it as many kinds: for some bee solide and massie,others full of holes,as if they were bored through. You shall have of them white,& black: some great,and others small: But how different soever they bee in substance,colour,or quantitie, they bee all of like nature.The best are those of Comagene.Gals are good to eat away the superF fluous excrescences in the bodie. They serve very well for the infirmities of the gums and Vvula; for the cankers and exulcerations breeding in the mouth.Beeing first burnt,and then quenched in wine,they are singular for the fluxes occasioned by a feeble stomacke.Applied in manner of a liniment,they helpe the bloudie flix.Incorporat in honey,they cure whitflawes,risings, and partings of the flesh and skin about the naile roots; the roughnesse of the nailes; the running skals and

and ulcers in the head: the knobs or ſwelling piles in the fundament, and in one word, all thoſe corroſive and eating ulcers, which conſume the fleſh to the very bone. Boiled in wine, and ſo inſtilled into the eares, they cure the infirmities of that part: So doe they likewiſe helpe the eyes, if they be annointed therwith. Applied with vinegre, they diſcuſſe phlegmaticke wheales and ſuch like breakings out, as alſo the flat biles & impoſtumes called Pani. The round kernill within them if it bee chewed, allaieth the toothach. The ſame is good to skin raw and galled places, and any burne or ſcalded place. Take unripe Gall-nuts, and drinke them with vinegre, they will conſume and weare away the ſwelled ſpleene. Burne the ſame, and quench them with ſalted vinegre; a fomentation thereof, ſtaieth the immoderat flux of womens fleurs, and reduceth the matrice (fallen downe) into the right place. All the ſort of theſe Gals do colour the haires of the head blacke. G

Concerning Miſſelto: That the principall and beſt is found upon the Oke, how it is cut, and in what manner birdlime is made therof, I have alreadie ſhewed. Some for to make the ſaid glew or birdlime, ſtampe Miſſelto firſt, and then ſeeth it in water, *untill it ſwim aloft. Others uſe to chew the graines or kernils onely which they beare, and ſpit out their outward pils or skins. But the very beſt is that, which hath no husk or skin at all: which alſo is the *ſmootheſt: without forth of a light tawnie or yellowiſh red: within, as greene as a leeke: for indeed, there is not a thing more glutinous or glewie than it. This Miſſelto is a great emollitive; for it ſofteneth, diſcuſſeth, and reſolveth alſo hard tumors: it is exiccative beſides, and drieth up the Scrophules or ſwelling kernils, knowne by the name of the Kings evill. If it be incorporat with roſin and wax, it mittigateth all ſorts of impoſtumes or flat biles whatſoever. Some put thereto Galbanum alſo, in equall quantitie or weight: and ſo uſe it in the ſame manner for to heale wounds. It polliſheth and maketh ſmooth the rough and uneven nailes, if it be laid too for ſeven daies, and the medicine not removed before: but the nailes ought to be well waſhed with Sal-nitre. Some obſerve certain ſuperſtitious ceremonies herein, and are of opinion, That it will worke the better and with more efficacie, in caſe it be gathered from the Oke, the firſt day of the new Moone; alſo if it be not cut downe with any bill, hooke, knife, or edged yron toole. Moreover, they doe hold, That if it touch not the ground, it cureth thoſe who are troubled with the falling ſickneſſe. Semblably, if women doe but carie it about them, it helpeth them to conceive. Finally, if it bee chewed and ſo applied unto ulcers, it is moſt effectuall to heale them perfectly. H I

Donec innatet. Some read *Donec nihil innatet:* that is, ſo long untill it ſettle all to the bottom, which may ſtand well with the firſt reading in this ſence, ſo long as it ſwimmeth aloft.
**Sæpiſſimum.*

As for the little round bals or apples found upon the Oke Robur, if they bee incorporat with Beares greaſe, they cauſe the haire to come thick againe, where it is ſhed, in caſe the bare or bald place be annointed therewith. K

Of the great Oke Holme Cerrus, thus much I have to ſay, That the leaves, the bark, and maſt thereof doe diſcuſſe and drie up all gathering of impoſtumations, even ſuch as grow to ſuppuration or mattering; and ſtay the flux of humors which feed them. A decoction thereof doth corroborat any member or part of the bodie which groweth to bee ſenceleſſe or benummed, if the ſame be fomented therewith. Alſo for to drie, bind, & confirme any part which is feeble & weake, it is ſingular good to ſit in a bath of this decoction. The root of this Cerrus is powerfull againſt the pricke of ſcorpions.

The barke of the Corke tree beaten into pouder and taken in hot water, is excellent for to repreſſe any flux of bloud, whether it bee upward or downeward. The aſhes of the ſaid barke given in wine hote, is greatly commended for the reaching and ſpitting of bloud. L

Chap. V.

Of the Beech and Cypreſſe trees. Of the great Cedars and their fruit called Cedrides: of Galbanum.

THe leaves of the Beech tree being chewed, doe much good to the gums and lips, in any accidents that befall unto them. The aſhes of Beech maſt is ſingular for the *ſtone, if it be applied as a liniment. The ſame alſo bringeth haire againe, when by occaſion of ſickneſſe it is ſhed and fallen away, if the place be annointed with it and honey together. M

Calculis. Some read *oculis*, *i.* eyes: others, *Callis*, *i.* hard knots or calloſities: and both to better ſence in mine opinion.

Cypreſſe tree leaves ſtamped and ſo applied, are a convenient remedie from the ſting of ſerpents. Alſo laid unto the head with dried groats of Barley, they eaſe the paine thereof, occaſioned by the heat of the Sunne. In like ſort, the ſame cataplaſme cureth ruptures. For which cauſe a drinke made of them is very good. A liniment alſo of Cypreſſe leaves and wax mingled together,

A ther, aſſuageth the ſwelling of the cods. Tempered with vinegre, they will make the haire cole blacke. Moreover, if they be ſtamped with two parts either of ſoft dough or the tender crums of bread, and ſo incorporat together with Amminean wine, they doe allay the paine of the feet or the ſinewes. The little bals or apples hanging upon Cypreſſe trees, are ſoveraigne for to be taken in drinke againſt the ſting of ſerpents, and for the caſting up of bloud out of the bodie. Brought into an ointment, they ſerve for the ſwellings or impoſtumes gathered to a place. Take them whiles they be young and tender, ſtamp them with Swines greaſe and Bean floure, they do much good to thoſe that are burſten: and for that purpoſe a drinke made of them, is paſſing effectuall. With ordinarie meale they ſerve in a cataplaſme to be applied upon the ſwelling kernils behind the eares, as alſo the Kings evill. There is a juice drawne out of theſe apples after they have beene
B ſtamped together with their graines or ſeed within: which if it bee mingled with oile, helpeth them to their cleare ſight againe, whoſe eyes are overcaſt with a web and dimmed. The ſame effect it hath if it be taken in wine to the weight of one Victoriat or halfe dram. But Cypreſſe Apples rid and cleanſed from their graines within, and reduced into a liniment with fat dried Figges, and ſo applied unto the cods, cure their infirmities, and namely, reſolve the tumors incident to thoſe parts: but incorporat with levaine, they diſpatch the Scrophules or Kings evill. The root and leaves punned together, and then taken in drinke, do comfort the bladder, and helpe ſuch as are diſeaſed with the ſtrangurie: they ſerve alſo againſt the pricke of the venomous ſpiders Phalangia. Their ſmall ſhavings or ſcrapings if a woman take in her drinke, procure her monethly termes, and are ſingular for the ſting of ſcorpions.

C The great Cedar, called by the Greekes Cedrelate, as one would ſay, the Fir-Cedre, yeeldeth a certaine pitch or parroſin named Cedria, a ſingular medicine for the toothach; for it breaketh them, fetcheth them out of the head and eaſeth all their paine. As touching the liquor that runneth from the Cedar, and the manner how it is made, I have written alreadie. This *kind of pitch were excellent for the eyes but for one diſcommoditie, in that it cauſeth headach. It preſerveth dead bodies from corruption, a world of yeares: contrariwiſe, living bodies it doth putrifie and corrupt: A ſtrange and wonderfull propertie, thus to mortifie the quicke, and quicken (as it were)
2 the dead. It marreth and rotteth apparell, as well linnen as woollen: and it killeth all living creatures. And therefore I would not adviſe as ſome have done, to taſt this medicine and take it inwardly for the Squinancie or crudities of the ſtomacke: neither would I be bold, but fear rather,
D to preſcribe it in a collution with vinegre to waſh the mouth withall for the toothach, or to drop it into their eares who be hard of hearing or otherwiſe have vermine within them. But a monſtrous and beaſtly thing it is which ſome report of it, That if a man doe annoint therewith the inſtrument or part ſerving for generation, at what time as he is minded to know a woman carnally, it will bring her to an *abortive ſlip, if ſhe were conceived before; or hinder conception, if ſhe were cleare. Howbeit, I would not make doubt to annoint therewith the head and other parts, for to kill lice, or to rid away the skurfe and skalie dandruffe among the haire, either in head or face. Some give counſell for to drinke it in ſweet wine cuit, unto them who are poyſoned with the ſea-Hare. For mine owne part, I hold it a ſafer way and an eaſier to annoint therwith the leproſie. But
E ſome of the foreſaid authours have applied it to filthie, putrified, and ſtinking ulcers, and the excreſcences therein: as alſo to rub or annoint therewith the eyes againſt the pin and web, & ſuch accidents as dim and darken the ſight. Moreover, they have preſcribed to drinke a cyath of it for to cure the ulcer of the lungs, and to expell wormes and vermine out of the bellie. Of this pitch or roſin there is an oile made, which they call Piſſelæon, and the ſame is farre more ſtrong in operation for all the infirmities abovenamed, than the ſimple roſin it ſelfe. Certaine it is, that the fine duſt ſcraped or filed from the Cedar wood, chaſeth away ſerpents: ſo doe the Berries alſo of the Cedar beaten to pouder and reduced with oile into a liniment, in caſe a man annoint his bodie all over with the ſame.

As touching Cedrides, that is to ſay, the fruit of the Cedar, it is ſoveraign for the cough and
F provoketh urine, bindeth the bellie, & healeth ruptures. It cureth ſpaſms, convulſions or cramps: yea, and helpeth the infirmities of the matrice, if it *be applied accordingly. Alſo it is a countrepoyſon againſt the venomous ſea-Hare: and a medicine for other maladies abovenamed, and namely for apoſtemes and inflammations.

Of Galbanum I have written heretofore. Good Galbanum ſhould be neither moiſt nor drie but ſuch in all reſpects as I have deſcribed alreadie. Beeing taken of it ſelfe alone in drinke, it cureth

*Cedrium.

* *Abortum fieri. Græcorum φθόριον ἢ ἀπόκιον.*

* *Admoti.* Some read *poti*, i. take in drinke.

reth an inveterat cough, ſhortneſſe, and difficultie of wind, ruptures, crampes and convulſions. G
Outwardly applied, it is ſingular for the Sciatica, pleuriſie, or paines of the ſide, angrie biles and
fellons. It is good alſo to bee uſed, in caſe the fleſh (corrupted by meanes of corroſive ulcers, as
wolves and ſuch other) is departed and eaten from the bone: moreover, for the wens called Scro-
phules or the Kings evill: the knots and nodoſities growing upon the joints: and the tooth-ach:
it ſerveth alſo in a liniment with honey for to annoint skald heads. With oile of Roſes or with
Nard, it is good to be infuſed or dropped into ears that run with matter. The very perfume alone
or ſmell thereof is good to raiſe them who are taken with the epilepſie or falling ſickneſſe: alſo
to recover women, lying (as it were) in a trance or dead, upon a fit of the mother: & to bring them
again who are gone in a ſwoune. If a woman fall to travaile before her time, it is good to fetch out
that untimely fruit of hers (if it be loth to come away) either by way of cataplaſme or ſuffumigati- H
on. The ſame effect it hath, if the braunches or ſmall roots of Ellebore bee well annointed there-
with, and ſo put up as a peſſarie. The ſmoke of it frying in the fire (as I ſaid before) driveth ſerpents
away: and more than ſo, ſerpents will not come neare unto them that are beſmeared with Galba-
num. And ſay that one be ſtrucken with a ſcorpion, a plaſtre of Galbanum will heale the wound.
If a woman have been long in labour of childbirth, and cannot be delivered, let her drink in one
cyath of wine, as much Galbanum as the quantitie of a Beane, ſhe ſhall fall to her buſineſſe and
be delivered anone. The ſame is a good medicine to reduce the mother into the right place, if it
be unſetled or turned. If Galbanum be taken in wine with Myrrhe, it ſendeth out the dead infant
in the mothers wombe. Alſo with Myrrhe and *wine, it is good againſt all poyſons, and eſpecial- I
ly thoſe which be called Toxica. Incorporat Galbanum with oile and *Spondylium together, it
will kill any ſerpents, if they be but touched therewith. Howbeit, there is an opinion of Galba-
num, that *in difficultie of urine it is not good to be uſed.

* *Vino.* Rather *aceto, i.* vineger, after *Dioſcor.*
* Cow-Parſnep or Madnepe.
* *Dioſcorides* reporteth the contrarie.

Chap. vi.

Of Gum Ammoniacke: of Storax: Spondylium: Spagnos: Terebinth: Chamapitys: of Pityuſa: of Roſius: of the Pitch tree: and the Lentiske.

Since we are fallen into the mention of Gums, it will not be amiſſe to treat of Ammoniacke; being as it is ſo like in nature (as I have ſaid) to Galbanum: for it hath vertue to mollifie, to heat, diſcuſſe, and diſſolve. Vſed in collyries, it is a proper medicine to clarifie the eyeſight: K
and ſerveth well to take away the itch, the ſpots or cicatrices, the pin and web alſo of the eyes. It allaieth the toothach, but more effectually, if it be ſet a burning, and the fume received into the mouth. Taken in drinke, it helpeth thoſe who hardly fetch and deliver their wind. It cureth the pleuriſie, Peripneumon or inflammation of the lungs, the infirmities of the bladder, piſſing of bloud, the ſwelled ſpleene, and the Sciatica. And in that manner it eaſeth the bellie, and maketh it ſoluble. Boiled with the like weight of pitch or wax and oile roſat together, and ſo reduced into an ointment, it is good for all gouts, and eſpecially that which lieth in the feet. It ripeneth the biles called Pani, if it be applied to them with honey: and fetcheth away any cornes by the roots. In which ſort it doth ſoften any hardneſſe. Incorporat with vinegre and Cyprian wax, or els with oile roſat, it maketh an excellent plaſtre for to mollifie the hard ſpleene. Moreover, if it be redu- L
ced into an ointment with vinegre, oile, and a little ſal-nitre, it is ſingular to annoint thoſe that have a laſſitude or wearineſſe upon them.

Touching Storax and the nature thereof, I have ſaid ynough in my Treatiſe of ſtraunge and forraine trees. But over and above the qualities or properties before required, I take that for the beſt Storax, which is fatteſt, pure, and cleane, and whereof the peeces or fragments doe breake white. This drug cureth the cough, the ſoreneſſe of the throat, and the accidents of the breaſt: it openeth the obſtructions of the matrice, and mollifieth the hardneſſe thereof. Whether it be taken inwardly in drinke, or outwardly applied, it provoketh womens fleurs, & moveth to the ſeege. I read in ſome authors, that if one doe drinke Storax Calamita, in ſmall quantitie, it will procure gladneſſe and mirth of heart: but if it be taken in greater quantitie, it breedeth heavineſſe of the M
mind. Inſtilled or poured into the eares, it riddeth away all the ſinging therein: and in a liniment it reſolveth the wens called the Kings evill, and the nodoſities of the ſinews. Soveraign it is againſt thoſe poyſons which hurt by meanes of their coldneſſe, and therefore it is good for them that have drunke the juice of Hemlocke.

Likewiſe

A Likewiſe of Spondylium, a kind of wild Parſnep or Madnep, I have ſpoken thereof heretofore, togither with Storax. An embrachotion made of it, to be infuſed upon the head, is excellent for ſuch as be in a frenſie or lethargie: alſo to cure the inveterat pains of the head. Taken in drinke with old oile, it helpeth the infirmities of the liver, the jaundiſe, the falling ſickneſſe, the ſtreightneſſe of breath (whereby one cannot take his wind but ſitting upright) and the riſing or ſuffocation of the mother; in which caſes, a ſuffumigation thereof is good. This Spondylium is effectuall to mollifie the belly, and make the bodie ſoluble. Reduced into a liniment with rue, it ſerveth fitly to be applied unto ulcers that ſpread and eat as they goe. The juice of the flours is of great effect, if it be poured into the ears that run with filthie matter: but when this juice is a preſſing or drawing forth, it had need to be kept well covered, for feare of flies and ſuch like, which
B are very greedie thereof, and love a-life to ſettle upon it. The root of Spondylium, or a peece thereof ſcraped, if it be put in manner of a tent into a fiſtula, eateth away all the hardneſſe and calloſitie thereof. Being dropped into the eares, togither with the juice, it is exceeding good for them. The root given alone in ſubſtance, cureth the jaundiſe, the infirmities of the liver and matrice. If the head be all over annointed therewith, the haire will curle and frizle.

Concerning the ſweet Moſſe, called of the Greeks * Sphagnos, Sphacos, or Bryon, growing (as I have ſhewed before) in Fraunce, it is good for the naturall parts of women to ſit over the decoction of it, in manner of a bath: likewiſe if it be mingled with creſſes, and ſo ſtamped togither in ſalt water, it ſerveth well to be applied as a cataplaſme to the knees and thighs for any tumors or ſwellings in thoſe parts. Taken in wine with drie per-roſin, it cauſeth one moſt ſpeedily
C to make water. Stamped with juniper, and drunke with wine, it doth evacuat the aquoſities in the dropſie. * *Vſnea.*

The leaves and the root of the Terebinth tree, applied in forme of a cataplaſme, are good for the collection of humors to an impoſtumation. A decoction made with them, doth comfort and fortifie the ſtomacke. In caſe of head-ach, of ſtopping and difficultie of urine, it is paſſing good to drinke the ſeed or grains of the Terebinth tree in wine. The ſame gently eaſeth and ſofteneth the belly; it provoketh alſo carnall luſt. The leaves of the * Pitch tree and * Larch tree bruiſed and ſodden in vinegre, doe eaſe the tooth-ach, if the mouth be waſhed with the decoction. The aſhes made of their barks, skin the places that be chafed, fretted, and galled between the thighs; and heale any burne or ſcald. Taken in drinke, they bind the belly, but open the paſſages of the
D urine. A perfume or ſuffumigation therof, doth ſettle the matrice, when it is looſe and out of the right place. But to write more diſtinctly of theſe two trees; The leaves of the Pitch tree have a particular propertie reſpective to the liver, and the infirmities thereof, if one take a dram weight of them and drinke it in mead or honyed water. It is well known and reſolved upon, That to take the aire of thoſe woods and foreſts only where theſe trees be cut, launced, and ſcraped, for to draw pitch and roſin out of them, is without all compariſon the beſt courſe which they can take who either be in a conſumption of the lungs, or after ſome long and languiſhing ſickneſſe, have much adoe to recover their ſtrength. Certes, ſuch an aire is far better, than either to make a long voiage by ſea into *Ægypt, or to go among the cottages in ſummer time for to drinke new milke comming of the freſh and greene graſſe of the mountains. * *Picea.* * *Laricij.* It ſeemeth that *Plinie* tooke πίτυν, which is the Pine, for *Picea*; and πίτυς, which is the Pitch tree, for *Larix*. * *i.* Into a more groſſe aire.

E As for Chamæpitys, it is named in Latine by ſome Abiga, for that it cauſeth women to ſlip their conception before time: of others, *Thus terræ*, [*i.* ground Frankincenſe:] This hearbe putteth forth braunches a cubit long; and both in floure and ſavour reſembleth the *Pine tree. A ſecond kind there is of Chamæpitys, lower than the other, ſeeming as though it bended and ſtooped downward to the ground. There is alſo a third ſort, of the ſame odour that the reſt, and therefore ſo named. This laſt Chamæpitys, riſeth up with a little ſtalke or ſtem of a finger thickneſſe; it beareth rough, ſmall, ſlender, & white leaves; and it groweth commonly among rocks. All theſe three be hearbs in deed and no other, and ſhould not be raunged among trees: yet for names ſake, becauſe they carrie the denomination of Pitys, [*i.* the Pitch tree] I was induced the rather to treat of them in this preſent place, & to ſtay no longer. Soveraigne they be all againſt
F the pricks or ſtings of ſcorpions: applied in manner of a liniment, with dates or quinces, they be holeſome for the liver: their decoction, togither with barley meale, is good for the infirmities of reins and bladder. Alſo the decoction of theſe hearbs boiled in water, helpeth the jaundiſe and the difficultie of urine, if the Patient drinke thereof. The third kind laſt named, taken with hony, is ſingular againſt the poiſon of ſerpents: and in that maner only applied as a cataplaſme, * Or rather, the Pitch tree.

it cleanſeth the matrice & naturall parts of women. If one drinke the ſame hearbe, it will diſſolve and remoove the cluttered thick bloud within the bodie: it provoketh ſweat, if the bodie be therwith annointed; and it is eſpecially good for the reins. Being reduced into pils, togither with figs, it is paſſing holeſome for thoſe that be in a dropſie; for it purgeth the belly of wateriſh humors. If this hearbe be taken in wine to the weight of a victoriat peece of ſilver, *i.* halfe a Romane denier, it wariſheth for ever the paine of the loins, and ſtoppeth the courſe of a new cough. Finally, if it be boiled in vinegre, and ſo taken in drinke, it is ſaid that it will preſently expell the dead infant out of the mothers wombe. G

For the like cauſe and reaſon, I will do the hearbe Pityuſa this honour as to write of it among trees, ſince that it ſeemeth by the name to come from the Pitch tree: this plant ſome doe reckon among the * Tithymals: a kind of ſhrub it is, like unto the Pitch tree, with a ſmall floure, and the ſame of purple colour. If one drinke the decoction of the root, to the quantitie of one hemina, it purgeth downward both fleame and choller: ſo doth a ſpoonfull of the ſeed therof, put up into the bodie * by ſuppoſitories. The decoction of the leaves in vinegre, doth cleanſe the skin of dandruffe and ſcalls: and if the decoction of rue be mingled therwith, it is ſingular for ſore breſts, to appeaſe the wrings and torments of the cholique, againſt the ſting of ſerpents, and generally for to diſcuſſe and reſolve all apoſtemations and botches a breeding. H

* *i.* Spurges.

* *In balanis*: unleſſe wee reàd, *cum Phœnicobalanis*, *i.* a kind of Date, as ſome thinke, Tamarinds.

But to returne againe to our former trees; how roſin is engendred in them, of their ſeverall kinds, and the countries where they grow, I have ſhewed before, firſt in the treatiſe of Wines, and afterwards in the diſcourſe and hiſtories of Trees. And to ſpeake ſummarily of roſins, they may be divided into two principall kinds, to wit, the drie and the liquid roſin. The drie is made of the Pine and the Pitch trees; the liquid commeth from the Terebinth, Larch, Lentiske, & Cypreſſe trees; for theſe beare roſin in Aſia and Syria: and wheras ſome there be of opinion, That the roſins of the Pitch and Larch trees be all one, they be much deceived; for the Pitch tree yeeldeth a fattie roſin, and in manner of frankincenſe, unctuous: but from the Larch tree there iſſueth * a ſubtile and thin liquor, running like to life honey, of a ſtrong and ranke unpleaſant ſmell. Phyſicians ſeldome uſe any of theſe liquid roſins, and never preſcribe them but to be taken or ſupped off with an egg. As for that of the Larch tree, they give it for the cough and exulceration of ſome noble parts within: neither is that per-roſin of the Pine tree much uſed: as for the reſt, they be not of any uſe unleſſe they be boiled. Touching the divers manners of boiling them, I have ſhewed them ſufficiently. I

* Which is thought to be our Terpentine.

But if I ſhould put a difference betweene theſe roſins according to the trees from whence they come; the right Terpentine in deed which the Terebinth yeeldeth, liketh and pleaſeth me beſt, being of all others lighteſt and moſt odoriferous. If I ſhould make choice of them in regard of the countries where they are found; certes they of Cypreſſe and Syria be beſt, and namely thoſe that in colour reſemble Atticke honey: and for the Cyprian roſin, that which is of a more fleſhie ſubſtance and drier conſiſtence. Of the drie per-roſins, thoſe are in moſt requeſt, which be white, pure, tranſparent or cleere, quite through. In generall, thoſe that come from trees growing upon mountains, be preferred before them of the plains: alſo regarding the Northeaſt, rather than any other wind. For ſalves to heale wounds, as alſo for emollitive plaſters, roſins ought to be diſſolved in oile: for drinks or potions, with bitter almonds. As touching their medicinable vertues, they be good to cleanſe and cloſe up wounds: to diſcuſſe and reſolve any apoſtemes which be in gathering. Moreover, they be uſed in the diſeaſes of the breaſt (and namely true Terpentine) by way of liniment; for then it is ſingular good, eſpecially if it be applied hot: alſo for the pains of the lims, and for thoſe that be plucked with the crampe, in caſe the grieved parts be well rubbed therewith in the ſun; which they know well enough who buy ſlaves and ſell them for gaine, after they have trimmed and ſet them out for ſale: for they eſpecially are very curious to annoint their bodies all over with this Terpentine, for to looſen the skin when they bee hidebound, lanke, and carrion leane, to give more libertie and ſpace for every part to receive nutriment, and ſo to make their bodies ſeeme fat and faire liking. Next unto the right Terpentine, is the roſin of the Lentiske tree: this hath an aſtringent or binding qualitie; but of all others it provoketh urine moſt: all the reſt doe mollifie the belly and make it ſoluble, concoct and digeſt all crudities, ſtent the inveterat cough, and draw downe all the ſuperfluous burdens of the matrice: for which purpoſe laſt named, their fume received by a ſuffumigation, is very effectuall. They are more particularly as good as a countrepoiſon againſt the venomous gum Ixia, growing upon K L M

A the plant Chamæleon. Incorporat with bulls tallow and honey, they cure the biles called Pani, and ſuch riſings in the fleſh. The Lentiske roſin, is ſingular good for to lay even and ſtreight the haires of the eyelids when they grow into the eyes. In fractures and broken bones, it is moſt neceſſary; as alſo for the ears running with filthie matter: likewiſe to kill the itch in the privie members. Finally, the per-roſin of the Pine tree, is a moſt ſoveraigne medicine to cure all the wounds of the head.

Chap. VII.

Of Stone-pitch: of Tarre: of Pitch twice boiled: of Piſſaſphalt or Mummie: of Zopiſſa: of Torch-wood, and the Lentiske.

B FRom what tree Pitch commeth, and the ſundrie wayes of making it, I have declared heretofore: alſo that there be two principall kinds thereof, to wit, the thicke or faſt Pitch, and the thin or liquid: of the former ſort, the beſt for uſe in Phyſicke is the Brutian Pitch; for that (being of all others fattieſt and fulleſt of gum) it yeeldeth a twofold commoditie both for medicines, and alſo to trim and roſin wine-veſſels: for which purpoſes, that which enclineth to a reddiſh yellow is counted the chiefe. But wheras ſome do ſay moreover, that the better Pitch commeth from the male tree, I cannot conceive what they ſhould meane therby, neither do I thinke it poſſible to diſcerne any ſuch difference. True it is, that Pitch by nature is hot, and a good incarnative: a ſpeciall and particular propertie it hath againſt the venom inflicted by the ſting or
C tooth of the horned ſerpent Ceraſtes, if it bee made into a cataplaſme with fried barley groats; and being applied with honey, it healeth the ſquinancie, cureth catarrhs, and reſtreineth ſneezing: with oile of roſes, it ſerveth well to be poured into running ears, out of which there doth ooſe filthie matter: or being applied in manner of a liniment with wax, it is paſſing good: it healeth the illfavoured tettars called Lichenes, and it looſeneth the belly: licked or let downe leiſurely in maner of a loch, it is a good means to void and reach up from the breaſt, tough fleame: and to annoint the tonſils or almonds in the mouth with it and honey togither, is a proper medicine: being in that manner prepared and uſed, it cleanſeth ulcers: and if it be incorporat with raiſins and ſwines greaſe, it doth incarnat and fill them up againe with new fleſh: carbuncles alſo it doth mundifie; ſo doth it ſores that begin to putrifie and gather corruption: but if they be ſuch
D as ſpread & be corroſive withall, then there would be an addition of the Pine tree barke, or brimſtone. Some have preſcribed, for the conſumption of the lungs, and a cough of long continuance, to drinke the quantitie of one cyath in Pitch. The fiſſures & chaps as well about the ſeat as in the feet, it cureth: for the flat biles named Pani, it is very good: as alſo to take away the rough nails that be ſo troubleſome. The very odour or perfume thereof, helpeth the hardneſſe of the matrice; and ſetleth it againe, being either falne downe, or turned out of the due place: likewiſe it helpeth ſuch as be ſurprized with the lethargie. Moreover, if it be boiled in the urine of a yong boy under fourteen years of age with barly meale, it is a good maturative, and bringeth the wens called the Kings evill to ſuppuration. As for drie Pitch or ſtone Pitch, it helpeth much to make the haire grow againe, where it is ſhed by ſome diſeaſe. The Pitch called Brutia, or of Calabria,
E boiled in wine to a waulme or two, with the fine floure of the bearded wheat Far, and ſo applied in a cataplaſme as hot as may bee ſuffered, is ſingular good for womens paps. Concerning liquid Pitch or Tar, as alſo the oile which they call Piſſelæon, and how it is made, I have alreadie written at large. Some boile it a ſecond time, and then they name it Palimpiſſa. With this liquid Pitch it is good to anoint the ſquinzie that groweth inwardly; as alſo the uvula within the mouth. The ſame is ſingular for the paine in the ears, to clarifie the ſight, to cleanſe the mouth furred as it were, ſo as it hath no taſt of meat: likewiſe for thoſe who are ſhort winded: for women who are diſeaſed in their matrice: to ripen & rid away old coughs; and to eaſe them that can do nothing but ſpit and reach out of the cheſt: for ſpaſmes, cramps, ſhaking, and trembling: moreover, it
F helpeth them whoſe heads or bodies are drawne backward: it cureth palſies, and any paines or griefs of the ſinews. There is not a better thing to kill either the mange in dogs, or the ſcab and tarcines in horſes, aſſes, and ſuch like travailing beaſts.

Moreover, as touching Piſſaſphalt, which is of a mixt nature, as if Pitch and Bitumen were mingled togither, it groweth naturally ſo, in the territorie of the Apolloniats: yet ſome there be who make an artificiall Piſſaſphalt, and meddle the one with the other, and hold it for a remedie

to cure the fatcins and ſcabs of cattaile; as alſo when the young ſucklings doe hurt the teats of their dams. Of this kind, that is beſt which is of it ſelfe, and come to maturitie and perfection: the ſame in boiling ſwimmeth aloft. * Zopiſſa; is that Pitch, which (as I ſaid heretofore) is ſcraped from ſhips, and is confected of wax well ſoked in the ſalt water of the ſea: the beſt is that which commeth from ſhips that have been at ſea and made ſome voiages: it goeth into emollitive plaſtres, for to reſolve the gathering of impoſtumes. As for Tæda or Torch-wood, if it be ſodden in vinegre, it maketh a ſingular collution for to waſh the teeth withall when they ake.

*Pix navalis.

Let us come now to the Lentiske tree: The wood, the ſeed or fruit, the barke and gum therof, doe provoke urine, and bind the belly: a fomentation made with their decoction, is excellent good for eating and corroſive ulcers: it ſerveth in a liniment for all ſores in moiſt and phlegmatick parts: likewiſe to cure S. *Anthonies* fire, and to waſh the gumbs withall: chew the leaves therof and cruſh them well between the teeth, the ſame will eaſe their ach: waſh them with their decoction, and they will ſet them faſt in the head. The ſame are good to colour the haire blacke. The gum which this tree doth yeeld, is ſovetaigne for the infirmities of the ſeat, eſpecially ſuch as require either drying or heating. The very decoction of Maſticke is comfortable to the ſtomacke, it cauſeth it to rift, and is beſides diuretical. Applied unto the head as a liniment, incorporat with the fried groats of barley, it cureth the ach or paine thereof. The tender leaves be applied to right good purpoſe, for the inflammation of the eyes. Moreover, this Maſtich, which is the gum of the Lentiske tree, is uſed ordinarily to lay the hairs of the eyelids even, and to extend or make plaine and ſmooth the riveled skin of the face: therefore it is uſed in ſope, and waſh-bals. Moreover, there is good uſe thereof, for ſpitting and reaching up of bloud, & for an old cough. In one word, it ſerveth all thoſe turns whereto the gum Ammoniacke is uſed. It healeth all places galled and chaufed, where the skin is rubbed or fretted off; and if the cods and members of generation be fomented either with the oile made of the ſeed of the maſtich tree mixed with wax, or with a decoction of the leaves boiled in oile or els in water, it will skin any raw part therof. To knit up this diſcourſe, I am not ignorant that *Democritus* the Phyſician, who had in cure *Conſidia* the daughter of *M. Servilius* late Conſull of Rome, for an *infirmitie or maladie of hers, (for that this damoſell could not abide to heare of any unpleaſant Phyſicke) cauſed her to be fed a long time with the milke of goats which were kept with the Lentiske tree leaves, and did eat nothing elſe, and ſo he cured her of her maladie.

* It ſhould ſeeme the ulcer of the lũgs or kidnies, or els ſome outragious flux of bloud.

Chap. viii.

Of the Plane tree, the Aſh, and Maple: of the white Poplar and Elme, the Tillet or Linden tree, the Elder, and the Iuniper.

THe Plane tree is an enemie to Bats or Reremice: their little balls which they beare, if they be taken to the weight of foure Romane deniers in wine, doe cure all poiſons of ſerpents and ſcorpions: likewiſe they heale any burn. Being braied or ſtamped with ſtrong & ſharp vinegre (which if it be Squilliticum is the better) they ſtaunch any bleeding whatſoever. Incorporat in honey, they mundifie and cleanſe all cancerous ulcers, the red pimples and ſpecks, with all blacke ſpots and marks in the skin which have remained a long time. The leaves and barke reduced into a liniment, their decoction alſo, helpe to rid away any gathering of humors to an head, and namely if they matter and run. The decoction of the barke ſodden in vinegre, is a ſingular remedie for the tooth-ach; like as the tendreſt leaves boiled in white wine, for the infirmities of the eyen. The aſhes which come of the foreſaid little balls, doe heale up any burne, occaſioned either by fire or extreame cold. The barke taken in wine, repreſſeth the venome of the ſcorpions ſting, ſo that it ſhall goe no farther.

As touching the Aſh tree, of what effectuall operation it is againſt ſerpents, I have declared heretofore: it beareth a * ſeed encloſed within certaine * cods, which being taken in wine, is an ordinarie remedie for the obſtructions and infirmities of the liver; as alſo for the pain in the ſides. The ſame alſo doe evacuat the aquoſities or wateriſh humours ſpread between the skin and the fleſh in the dropſie Leucophlegmatia. The leaves do take down by little and little and make lean a bodie over-groſſe, and doe eaſe it of the troubleſome carriage that it hath of ſo much fat, if the ſame be ſtamped and given in wine: but herein good regard ought to be had of the ſtrength of the partie, after this proportion: If it be a child, five leaves of the Aſh are ſufficient to be infuſed

* Called *Lingua avis.*
* Which are named Keyes.

in

A in three cyaths of wine; but elder folke and of a ſtronger complexion, may abide ſeven well
7 enough in five cyaths, and drinke the infuſion. But before I doe leave this tree, it would not be forgotten that the ſmall chips and ſhavings, yea and the ſaw-duſt or filed powder of this wood, are thought to be hurtfull unto ſome, and they are forbidden to meddle withall. The root of the Maple tree, ſtamped into a cataplaſme, is ſingular to bee applied for the griefs of the liver, and worketh mightily.

As touching the white Poplar or the trembling Aſpe, I have ſhewed heretofore how the perfumers uſe the berries or * grapes thereof in their ſweet ointments. The barke infuſed and taken in drinke, is good for the ſciatica and the ſtrangurie. The juice drawne out of the leaves, dropped hot into the ears, eaſeth their paine. Whoſoever carrieth a twig of Poplar in their hands,
B ſhall not need to feare any ſurbating of the feet, or galling between the legs. The beſt black Poplar and of greateſt operation in Phyſicke, is that reputed which groweth in the Iſland Creta; the fruit or graine thereof if it be drunke in wine, is ſingular for thoſe who be taken with the falling ſickneſſe. This Poplar yeeldeth a certaine ſmall gum or roſin, which is much uſed by Phyſicians in emollitive plaſters: the leaves ſodden in vinegre, make a proper cataplaſme to be ap-
3 plied unto the gout: the liquor or humor that iſſueth out of the pores or concavities of the black Poplar, taketh away werts and wheals; it skinneth alſo galled and raw places in any part of the bodie. Theſe Poplars as well white as blacke, beare upon their leaves certain werts like to drops of water ſtanding upon them, out of which the Bees doe gather that cereous ſubſtance named Propolis. The drops alſo of water, which the ſaid Propolis doth yeeld, if they be mingled with water,
C is a very effectuall remedie for many things.

Now for the Elme: the leaves, the barke, and the woodie ſubſtance of the braunches, have a glutinous nature to conſolidat, unite, and heale wounds: the thinner rind or tunicle verely which lieth between the outward barke and the tree, doth aſſuage the leproſie, called of ſome S. *Magnus* evill: ſo doe the leaves alſo, applied with vinegre. The barke of the Elme pulverized and taken to the weight of a Roman denier in one hemine of cold water, is a very purgative, and doth evacuat
2 flegmaticke and wateriſh humors particularly. The liquor that iſſueth from the tree as a jelly, is ſingular good for apoſtemations, wounds, and burns; but if the places were fomented before with the decoction, it would be the better. The Elme beareth certain ſmall bladders or husks, wherin there is engendred and contained a wateriſh humor, which is very proper to embeliſh the skin,
D and beautifie the face. The firſt tender ſprouts of the leaves boiled in wine, do aſſuage all tumors, and * draw filthie matter and corruption foorth of fiſtulous ſores: the ſame doe the inward thin rinds within the barke. Many are of opinion, That the very barke chewed onely, and applied to
2 greene wounds, is ſingular good to heale them. They affirme moreover, That the leaves bruiſed and applied to the feet, allay their ſwelling, ſo there be water ſprinckled among. Furthermore, the watet or liquor which runneth from the heart or pith of the wood when the tree is lopped or disbraunched (as I have ſaid before) if the head bee annointed or bathed withall, cauſeth the haire to grow againe if it be loſt, and keepeth it on if it be readie to ſhed and fall.

As touching the Tillet or Linden tree, the very wood thereof is uſed for all things in a manner that the wild olive is emploied unto, if the ſame be lightly bruiſed or ſtamped: howbeit, the
E leaves only are occupied; which, if they be chewed and ſo applied, doe cure the cankers breeding in the mouth of ſmall infants. Beeing boiled and their decoction inwardly taken, they provoke urine: outwardly applied, they doe ſtay the inordinat and exceſſive flux of womens fleures; but given in drinke, they evacuat the ſame ſuperfluous bloud.

There is a ſecond kind of Elder more wild of nature, which ſome of the Greeke writers call * Chamæacte, others Helion, and it groweth much lower than the other. The decoction of the leaves as well of Walwoort as Elder, boiled in old wine, is contrarie and noiſome to the ſtomacke, and purgeth downward waterie humors: even ſo doth the decoction either of the ſeed or the root, if it be taken inwardly to the quantitie of two cyaths: the ſame is excellent to coole any inflammation, and namely, to take out the fire of any new burne or ſcald. The young and
F tender leaves, as well of Elder as Wallwort, reduced into a cataplaſme and laid too with barley groats, doe cure the biting of a dogge. The juice both of the one and the other, infuſed and conveyed accordingly into the head, is a ſoveraigne lenitive for all impoſtumes of the braine, and eſpecially thoſe which are growing in the fine membrane or pellicle called Pia Mater, which immediatly lappeth and enfoldeth the braine. The fruit or berries either of the Elder or

* And yet heretofore he ſaith, that it hath neither the one nor the other.

* *Extrahúntque pus fiſtulis.*

* *i.* Ground-Elder, Wall-wort, or Dane-wort.

of Walwoort, are weaker in operation than the other parts of the tree or plant: howbeit, they G
ſerve well to colour the haire of the head blacke. The ſame alſo taken in drinke, to the meaſure of one acetable, be diureticall and provoke urine. The ſofteſt and tendereſt leaves are eaten ordinarily in a ſalad with oile and ſalt, for to purge fleame and choller. In ſum, the leſſer plant, which is the Wallwort, is in all things more effectuall than the elder it ſelfe; for if the root thereof be ſodden, and a draught of two cyaths be given to them who are in a dropſie, it will purge mightily and evacuat waterie humors. A decoction of the roots and leaves of Danewort, is ſingular to mollifie the matrice and naturall parts of a woman, if ſhe ſit over the ſame and take the vapor thereof into her bodie. The tender ſprigs of the milder Elder, boiled between two platters, doe make the bodie ſoluble, and move to the ſeege. The leaves drunke in wine, reſiſt and kill the poiſoned ſting of ſerpents. The tendrons of the Elder, incorporat with goats tallow, and reduced H
into a liniment, are ſingular good for the gout, if they be applied to the grieved place. The water of their infuſion, if it be caſt or ſprinkled in any roume of the houſe, killeth fleas: and if the place be likewiſe ſprinkled with the decoction of the leaves, it will not leave a flie alive. There is a kind of diſeaſe [much like to purples or meazles] when the bodie is bepainted all over with red bliſters: a braunch of the Elder tree is excellent good to laſh the ſaid wheals or riſings, for to make them fall againe and go downe. Take the inner barke or rind of the Elder, beat it into powder, and ſo drinke it in white wine, it is a ſufficient purgation.

The Iuniper of all other trees, paſſeth, either for to heat any part, or to extenuat and make ſubtile any humors: in operation much like to the Cedar. Of it there be two kinds; the greater, and the leſſe: a perfume made with the one as well as the other, driveth away ſerpents. The ſeed I
or berries of Iuniper, aſſuage the pains of ſtomacke, breaſt, and ſides: the ſame ſerve well to breake wind and reſolve all ventoſities, yea and to evaporat all cold and chilneſſe: they ripen any cough, and mollifie all hardneſſe: a liniment made therof applied outwardly, cauſeth any tumor to goe down, and repreſſeth the riſing thereof: likewiſe if the berries be drunke in ſome groſſe or thicke red wine, it will ſtay a laske: like as they will abate the ſwelling of the belly, if they be laid too by way of a cataplaſme or liniment. The Iuniper berrie is reckoned among the ingredients
* Oxyporis, which goe into antidots, or preſervatives againſt poiſon; ſuch I meane, as be * penetrative and of quicke operation. It is diureticall and mooveth urine. In caſe the eyes doe water much by reaſon of a continuall rhewme taking to them, it is good to apply a liniment unto them made therewith. Foure Iuniper berries are given in white wine, or twentie of them boiled in wine, for K
convulſions, cramps, ruptures, wrings, and torments in the bellie, for the grieſes of the matrice and the Sciatica. To conclude, ſome there be, who fearing to be ſtung with ſerpents, uſe ordinarily to rub or annoint their bodies with a liniment made of Iuniper ſeed or berries.

Chap. ix.

Of the Sallow, Willow, or Withie: of the twig Withie or Oiſier Amerina. Of twigs or binding rods. Of Heath or Lings.

THe fruit which the Willow or Sallow yeeldeth, if it be ſuffered to hang, before it doth ripen is converted into a certaine ſubſtance reſembling a cobweb; but beeing gathered ere it be L
thus transformed, it is ſingular good for ſuch as reach or caſt up bloud. The aſhes of the rind pilled from the firſt braunches that the willow putteth foorth, and tempered with water, taketh away corns and calloſities of the feet: they ſerve alſo to rid the ſpots and ſpecks which diſfigure the viſage, the rather if they be incorporat with the juice of the willow. Now there be found in the ſaid willow, three ſorts of juice: The firſt ſweateth out of the tree it ſelfe in manner of a gum: the ſecond iſſueth forth by way of inciſion, when the tree is in the bloum; provided alwais that the cut or gaſh in the barke, bee made three fingers broad: this liquor is ſingular good to cleanſe the eies, and to rid away ſuch impediments as hinder the ſight; likewiſe to incraſſat or thicken where need requireth; to provoke urine, and draw forth all inward impoſtumes outwardly: the third juice is that which diſtilleth from the braunches preſently after the bill or cutting- M
hooke, when the tree is lopped, or the boughs cut from the bodie. Take any one of theſe juices, and heat the ſame well with oile of roſes in the rind of a pomegranat, excellent it is for to bee dropped into the ears: likewiſe the decoction of Sallows, or the leaves ſtamped and incorporat with wax, and ſo applied, do the like: as alſo laid too in maner of a cataplaſme, they eaſe the pain

of

A of the gout. The decoction of the leaves & barke boiled in wine, is paſſing holeſome to foment the nerves withall. The bloumes or chattons of the Willow, ſtamped together with the leaves, cleanſe the brannie skales that appeare in the face. The leaves of the Willow punned and taken in drinke, doe coole them that are given too much unto laſcivious luſt, and over-hote in the acti-
2 on of *Venus*: and if they uſe to take the ſame often, they will diſable them altogether for the act of generation. The ſeed of the blacke Oiſier or Willow called Amerina, mixed in like weight with white litharge of ſilver, and brought into a liniment, is a depilatorie, and fetcheth off the haire, if the place be annointed therewith preſently after the baine.

There is a kind of tree named Vitex, not much different from the Willow, in regard of the uſe that the twigs bee put unto, as alſo of the leaves which reſemble thoſe of the Willow in out-
B ward ſhew, but that their ſmell is more pleaſant and odoriferous: the Greeks, ſome call it Lygos others Agnos, *i.* chaſt; for that the dames of Athens, during the feaſts of the goddeſſe *Ceres*, which were named Theſmophoria, made their pallets and beds with the leaves thereof, to coole the heat of luſt, and to keep themſelves chaſt for the time. And two ſorts there be of it. The greater riſeth up to a tree in manner of a Willow: the other, which is leſſe and lower, brancheth thicke, bearing white leaves, and thoſe full of downe and cotten. The former of theſe two, which is called the white Agnus Caſtus, putteth forth white flowers & purple one with another: wher-
C as contrariwiſe, all the flowers of the leſſe, which is called the blacke, be purple onely. Both the one and the other love to grow in plaines and moores. The ſeed of Agnus Caſtus, if it be taken in drinke, hath a certaine relliſh or taſt of wine, and it is commonly thought that it cureth feavers: and whoſoever is annointed therewith, beeing incorporat into a liniment with oile, ſhall ſoone ſweat: and by that meanes it is good to rid away wearineſſe. Agnus Caſtus, as well the one as the other, provoketh urine and the monthly termes of women. Both of them fume up into the head as wine doth: and no marvell, for they have the very ſmell of wine. They bee ſingular to ſend all ventoſities downeward. They ſtop the flux of the bellie, and be excellent good for thoſe who are in a dropſie, or troubled with the ſpleen. They have this ſpeciall propertie beſides, to breed good ſtore of milke in milch nources. Adverſe they be to all poyſons of ſerpents, ſuch eſpecially as do miſcheefe by their cold qualitie. The leſſe is more effectuall againſt ſerpents. And for this pur-
D poſe they uſe to give either one dram of the ſeed to drinke in wine or Oxycrat, which is vinegre and water; or els two drams of the moſt tender leaves. There is neither of them both, but as well the ſeed as the leaves, reduced into a liniment, bee ſingular good for the pricke of ſpiders. And there is not any venomous creature that will come neare thoſe who are but annointed therwith: nay they will flie from the very perfume thereof, or the couch which is made of the leaves. They abate the heat of wanton luſt: and in that regard eſpecially they bee contrarie to the venomous ſpiders Phalangia, which by their ſting doe pricke a man forward that way, and cauſe his fleſh to riſe. The flowers and yong tendrils of Agnus Caſtus, incorporat in oile roſat, do allay the head-ach, occaſioned by drinking overliberally. But if the ſaid headach be exceeding great, it is good to foment the head with a decoction of the ſeed of the ſaid Agnus: for it will reſolve and diſpatch the extremitie thereof. The ſame likewiſe by way either of ſuffumigation or cataplaſme, mundifi-
E eth and cleanſeth the matrice. And being taken as a drinke with peniroyall and honey, it is a pur-gative, and ſcoureth the bellie. Mixed with Barley meale, and applied pultiſſe-wiſe, it mollifieth thoſe botches and biles which hardly grow to ripeneſſe. The ſeed tempered with ſalt-petre and vinegre, healeth tettars, ringwormes, and red pimples: and with hony cureth the cankers or ſores in the mouth, yea, and any wheales and breaking forth whatſoever. The ſame reduced into a lini-ment with butter and vine leaves, wariſheth the infirmities incident to the cods: and if the ſeat be annointed with it and water medled together, it taketh away the chaps and fiſſures in that part. Brought into a cerot with ſalt, nitre, and wax, it is ſingular good for all diſlocations. Both the ſeed and leaves of Agnus, enter into many cataplaſmes or mollitive plaſtres, deviſed for the ſinews and the guts. The ſeed boiled in wine, maketh a good decoction, which if it be dropped upon the head by way of embracation, is right ſoveraigne for lethargie and phrenſie both. It is ſaid, that who-
F ſoever beareth in his hand a twig of Agnus, or gird himſelfe about the middle therewith, ſhall not be galled or fretted betweene the legs.

As touching Heath or Lings, which the Greekes call Erice, it is a ſhrub not much different from Tamariske, in colour and forme of leafe, ſuch as it is, reſembling Roſemarie. The leafe of this plant (they ſay) is an enemie to ſerpents.

As

As for Broome, it ſerveth alſo very well to make halters and cords of. The flowers pleaſe Bees passing well. I am in doubt and not able to ſay, Whether this Geniſta or Broome, be that which the auncient Greek writers called Sparton; for, I have ſhewed, that they uſed therof to make their fiſhing nets: and I wot not well whither *Homer* meant it, when he ſaid, That the ſhip-ſparts were untwiſted and looſe. For this is certaine, that neither the ſpart of Affrick, ne yet the Spaniſh ſpart was as yet in any uſe: and at what time as barges and veſſels were ſowed together with ſeames, it is well known, that the ſtitches were made with linnen thred, & not with ſpart. The ſeed that it beareth, which the *Greeks give one and the ſame name unto, growing within ſmall cods in manner of Phaſeols, is as ſtrong a purgative [of Melancholie] as Ellebore; if it bee taken when one is faſting, to the weight of a dram and halfe, in foure cyaths of honied water. The branches and leaves (ſuch as they be) of Geniſta or Broome, being ſtamped after they have lien many daies infuſed in vinegre, yeeld a certaine juice ſingular good for the Sciatica, if it bee drunke to the quantitie of one cyath. Some chuſe rather to ſteepe it in ſeawater, and to draw forth the juice, and ſo miniſter it with a clyſtre for the ſaid purpoſe. The ſaid juice incorporat with oile, ſerveth for an ointment alſo to be applied outwardly for the Sciatica. Some uſe the ſeed for the ſtrangurie. The ſubſtance of Broome ſtamped with Swines greaſe, helpeth the ach or paine in the knees.

* For they call it *Sparton*, as well as the plant.

To come now to Tamariske, which the Greekes call Myrice, *Lenæus* affirmeth, That it is uſed in manner of the Amerian Willow for beeſomes: and more than ſo, that if it be ſodden in wine, ſtamped and reduced into a liniment with honey, it healeth cankerous ulcers. And in very truth, ſome hold, That the Myrice and Tamariske bee both one. But doubtleſſe, ſingular it is for the ſpleene, in caſe the patient drinke the juice preſſed out of it, in wine. And by report, there is that wonderfull antipathie and contrarietie in Nature betweene Tamariske and this one part alone of all the other bowels, that if the troughs out of which Swine drinke their ſwill, bee made of this wood, they will be found when they are opened, altogether without a ſpleen. And therfore ſome Phyſicians doe preſcribe unto a man or woman alſo diſeaſed in the ſpleene, and ſubject to the opilations therof, both do drink out of cups and cans of Tamariske, and alſo to eat their meat out of ſuch treen diſhes as be made of that wood. One renowmed writer above the reſt, and for knowledge in great credit and authoritie among Phyſicians, hath affirmed and avouched conſtantly, That a twig of Tamariske ſlipped or broken from the plant, ſo as it touched neither the ground, nor any yron toole, aſſuageth all bellie-ach, in caſe the patient weare it about him ſo, as that his girdle and coat hold it faſt and cloſe to the bodie. The common people call it The unluckie tree, as I have heretofore ſaid, becauſe it beareth no fruit, & is never with us ſet or planted. In Corinth and all the territorie or region round about, they name it Brya, and make two kinds thereof; to wit, the wild, which is altogether barren, and that which is of a more tame and gentle nature. This Tamariske in Ægypt and Syria beareth in great plentie a certain fruit, in ſubſtance hard & woodie, in quantitie bigger than the Gall-nut, of an unpleaſant and harſh taſt; which the Phyſicians doe uſe in ſtead of the Gall-nut, and put into thoſe compoſitions which they name Antheras. Howbeit, the very wood of this plant, the flower, leaves, and barke alſo, bee uſed to the ſame purpoſe, although they bee not ſo ſtrong in operation as the ſaid fruit. The rind or barke beaten to pouder, is given with good ſucceſſe to them that caſt up bloud: alſo, to women who have a great ſhift of their fleurs: likewiſe to ſuch as bee troubled with a continuall flux, occaſioned by the imbecilitie of the ſtomacke. The ſame bruiſed and applied as a cataplaſme, repreſſeth and ſmiteth backe all impoſtumations a breeding. The juice preſſed out of the leaves, is good for the ſame infirmities: moreover, they uſe to boile the leaves in wine, for the ſame intent. But of themſelves alone being brought into a liniment with ſome honey among, they are good to be applied unto gangrenes. The foreſaid decoction of the leaves beeing drunke in wine, or the leaves applied with oile of Roſes and wax, mitigat the ſaid gangrenes, namely, when the fleſh tendeth to mortification. And in this manner they cure the night-foes or chilblanes. Their decoction is holeſome for the paine of teeth or eares: for which purpoſe ſerveth the root likewiſe & the leaves. Over and beſides, the leaves have this propertie, That if they be brought into the forme of a cataplaſme with Barley groats and ſo applied, they keepe downe and reſtraine corroſive ulcers. The ſeed, if it be taken to the weight of a dram in drinke, is a preſervative and counterpoyſon againſt ſpiders, and namely thoſe which be called Phalangia. And if the ſame be incorporat with the tallow or greaſe of any fatlings or beaſts, kept up in ſtall, ſtie, or mow, into a liniment, it is ſingular good for any uncom or fellon. Of great efficacie it is alſo againſt the ſting of all ſerpents, except

the

A the Aspis. The decoction likewise of the seed clysterized, is singular for the laundise, it killeth lice and nits, and staieth the immoderat flux of womens months. The ashes of the very wood of the tree, is good in all those cases beforesaid: which if they be mingled in the stale of an Oxe, and so taken of man or woman, either in meat or drinke, it will disable them for having any mind to the sports of *Venus* ever after. And a burning coale of this wood, when it is quenched in that stale or beasts pisse, they use to save and lay up in the shade for that purpose: but if one list to kindle lust, *then they set it on fire againe. To conclude, the Magicians say, That it would doe as much, if the urine onely of a guelded man were taken for the said purpose. *Rursum uritur.

Chap. X.

B *Of the bloud-rod. Of Siler. Of Privet. The Alder tree, and Ivie. Of Cisthus and Cissos. Of Erithranos. Of Chamæcissos or Ground-Ivie. Of Smilax or Bindweed. Of Clematis.*

THe plant called the Sanguin-Rod, is as unhappie as the foresaid Tamariske. The inner bark thereof is singular good to open again those ulcers, which are healed aloft onely and skinned before their time.

The leaves of *Siler, brought into a liniment and applied as a frontall to the forehead, allay the paine of the head. The seed thereof driven into pouder and incorporat with oile, is good for the lousie disease, and keepeth the bodie from lice. The very serpents cannot abide this plant or C shrub, but flie from it: which is the cause, that the peasants of the countrey make their walking staves thereof. *Some thinke it is the broad-leafed Oisier.

Our Ligustrum or Privet, is the very same tree that Cypros is in the East parts. To good use it serveth amongst us here in Europe: for the juice of it is holesome for the sinewes, the joints, and any extreame cold. The leaves applied with some cornes of salt, heale all inveterat ulcers in any part whatsoever, and particularly the Cankers in the mouth. The graines or berries that it beareth, are good to kill lice: also for any gall, where the skin is fretted off betweene the legs: and so be the leaves likewise. The foresaid berries doe cure the pip in Hens and Pullain.

As for the Alder tree: the leaves if they be applied hote as they be taken out of scalding water, doe cure without faile any tumor or swelling.

D As touching the Yvie tree, twentie kinds thereof and no fewer I have alreadie shewed: and of all these there is not one, but the use of it in Physicke is doubtfull and daungerous. For first and formost, Yvie, if it be drunk in any quantitie, howsoever it may purge the head, surely it troubleth the braine. Taken inwardly, it hurteth the sinewes: applied outwardly, it doth them much good. Of the very same nature it is, that vinegre. All the sort of Yvies be refrigerative. In drink they provoke urine. But the soft and tender leaves, sodden in vinegre and oile rosat, and then stamped, F and so tempered with more oile of roses put too afterwards, untill they be reduced into an ointment, are a singular remedie for the paines of the head; and especially for the brain and the thin pellicle Pia mater, which enwrappeth the braines: To which effect the forehead ought to bee annointed with the foresaid liniment, the mouth to be fomented and washed with the decoction, E and the whole head afterwards well rubbed also with the abovesaid unguent. They are good for 2 the spleene, both taken inwardly in drink, and outwardly applied as a liniment. The decoction of the same leaves may be drunke very well against the fit of an ague, to drive away the shaking cold: also for the small pockes and measels: for which turne likewise they serve, if they bee pulverized and taken in wine. The berries of the yvie cure the oppilation and hardnesse of the liver, either given in drinke, or applied outwardly. So doe they open also the obstructions of the liver, if a liniment be used onely. The same applied accordingly to the naturall parts of women, draw down their monthly sicknesse. The juice of Ivie (and specially of the white, which is planted in gardens) cleanseth the nosthrils of the foule ulcers and vermine therein breeding, it rectifieth also the filthie smell proceeding from thence. If the same bee conveighed up into the nose, it purgeth the F head: but more effectually, if sal-nitre be put therto. Moreover, it is to right great purpose dropped into the eares with oile, in case they either run matter, or be pained. It reduceth cicatrices or wounds and ulcers newly skinned, to the naturall colour of the other skin. The juice of the white Ivie is of more force and better operation for the oppilations of the spleene, & the swelling hardnesse thereof, if it bee made hot with a red hot yron, than otherwise: whereof six berries in two

cyaths

cyaths of wine, is a ſufficient doſe. Moreover, three berries of the ſame white Ivie drunk at a time G
in Oxymell, doe expell the wormes in the bellie: during which cure, it were not amiſſe to applie
* Golden berrie Ivie. them outwardly alſo. As for the Ivie, which I called *Chryſocarpos, if one take twelve of the golden yellow berries thereof beaten to pouder, and put them to a ſextar of wine, three cyaths thereof given to drinke, according to *Eraſiſtratus*, purge by urine the waterie humors betweene the skin and the fleſh, which engender the dropſie. The ſame *Eraſiſtratus* was wont to take five ſuch berries ſtamped into pouder and mixed with oile roſat, which after they were made hote in the rind of a Pomgranat, he uſed to drop into the eare of the contrarie ſide, for the tooth-ach. The berries of Ivie, which yeeld a juice as yellow as Saffron, if a man take before he ſit down to drink, may be aſſured, that he ſhall not be drunke at that ſitting. Likewiſe, they eaſe them much who are given to caſt and reach up bloud, or be ſubject to the collicke and wrings of the bellie. The white H
berries of the blacke Ivie if a man take in drinke, dull the vigour of his genetall ſeed, and diſable him for getting children. Any wine whatſoever, being boiled in wine, & ſo brought to a liniment and applied, doth cure all ulcers, even morimals, and ſuch as be untoward for to bee healed. The liquor iſſuing out of Ivie, is depilatorie, but as it taketh away haire, ſo it riddeth lice and vermine. The flowers of any kind of Ivie, taken (as much as a man may comprehend with three fingers) twice a day in ſome green and hard wine, helpe the dyſenterie or bloudie flix, yea, and any other laske. The ſame reduced into a liniment with wax, are very good to skin and heale burns or ſcaldings. The berries of Ivie, colour the haire of the head blacke. The juice of the Ivie root drawne with vinegre and taken in drinke, is ſingular againſt the poyſon of the venomous ſpiders Phalangia. Moreover, I find in ſome writers, That the drinking out of a cup or diſh of Ivie wood alſo, as I
well as of Tamariske, cureth thoſe who have hard ſpleenes. The ſame authors preſcribe to bruiſe the berries, afterwards to burne them, and with the aſhes to dreſſe and beſtrew the place that is burnt or ſcalded, ſo that it be firſt waſhed and bathed in hot water. There are Phyſicians who give order to cut and launce the Ivie tree, for to draw a juice or liquour from the place of the inciſion, which is to bee uſed for rotten and worme-eaten teeth: and by their ſaying, the faultie teeth will breake and crumble into peeces if they be annointed therewith; provided alwaies, that the ſound and good teeth ſtanding next, bee well defended with wax for catching harme by this medicine. Moreover, they ſeeke and lay for the gum of Ivie, which they would perſuade us aſſuredly upon their word to be ſingular for the teeth, being applied thereto with vinegre.

For the vicinitie and likeneſſe of the name of Ivie in Greeke, which is Ciſſos, I may take occa- K
ſion to ſpeak in this place of another ſhrub or plant called Ciſthos, bigger than Thyme, & leaved like Baſill. Of it be two kinds, namely, the male, with a red Roſe coloured flower; the female with a white: Both ſorts are good for dyſenteries or bloudie flixes, and all looſeneſſe of the belly, if there be drunke twice aday in ſome greene and hard wine, as much of their flowers as may bee held at three fingers ends: which if they be made into a cerot with wax, heale old ulcers, burns, and ſcaldings: and alone of themſelves cure the cankers or ſores in the mouth.

Vnder this plant eſpecially groweth Hypociſthis, wherof I have written in my treatiſe of Ivies.

Likewiſe, there is another plant like unto the Ivie, and the Greekes call it Ciſſos Erythranos: which being taken in drinke, helpeth the Sciatica, and is good for the loines: but they ſay it is ſo vehement and forcible in operation, that together with urine it will evacuate bloud. L

Moreover, there is an Ivie which creepeth and traileth alwaies cloſe by the ground, and the ſame the Greekes call Chamæciſſos. This hearbe being ſtamped and taken in wine to the quantitie of one Acetable, cureth the infirmitie of the ſpleene. The leaves incorporate with Swines greaſe, ſerve to cure burnes.

Furthermore, the Bindweed Smilax, knowne alſo by the name of Nicephoros, reſembleth Ivie, but that it hath ſmaller leaves. They ſay, that a chaplet or guirland made of this Smilax, is ſingular for the headach; provided alwaies, That the leaves which goe to the making of it, bee in number odde. Some have ſaid that Smilax is of two ſorts: the one, which continueth a world of yeares, groweth in ſhaddowie vallies, climbing trees, & tufted in the head with cluſters (as it were) of berries in manner of grapes; a ſoveraigne plant againſt all poyſons, inſomuch, as if the juice M
or liquor of the berries be oftentimes dropped into the eares of young babes or little infants, no poyſons (by report) will ever hurt them afterwards. As for the other Smilax or Bindweed, it loveth places well toiled and husbanded, wherein it uſually groweth: but of no vertue it is and operation. The former Bindweed is that, the wood whereof we ſaid would give a ſound, if it were held

cloſe

A cloſe to the eare. Another hearbe there is like to this, which ſome have called Clematis. This plant creepeth & climbeth upon trees, having many joints alſo or knots. The leaves are good to mundifie the foule leproſie. The ſeed drunke to the meaſure of one acetable, in a hemin of water or mead, maketh the bellie looſe. The decoction thereof is given likewiſe to the ſame effect.

Chap. xi.

The vertues and properties of Canes or Reeds, of the Papyr reed, of Ebene, Oleander, Sumach otherwiſe called Rhus Erythros, Madder, Allyſſon, Sopewort or Fullers-weed, Apocynon, Roſemarie, Cachrys, Savine, Selago, and Samulus. Alſo of Gums.

B HEretofore have we ſhewed nine and twentie ſundrie kinds of Reeds, all endued with their medicinable vertues: and in no plants more appeareth the admirable power of dame Nature, the onely ſubject matter handeled in all theſe bookes of ours. For in the firſt place, there preſenteth it ſelfe unto us the root of Reeds or Canes, which being bruiſed and applied accordingly, draweth forth of the bodie any ſpils of Fearne ſticking within the fleſh: So dooth the Fearne root by the Reed. And for as much as we have ſet down many ſorts of Canes, that among the reſt, which commeth out of India and Syria, and wherof perfumers have ſo great uſe in their ſweet ointments and odoriferous compoſitions, hath this propertie beſides, That if it be boyled with the graſſe called Dent de Chien [*i.* Quoich graſſe, or Perſely ſeed] it is diuretical and provo-
C keth urine. Applied outwardly, it draweth downe the deſired ſickneſſe of women. Taken in drinke to the weight of two oboli, it cureth thoſe who are ſubject to convulſions or crampes: it helpeth the liver and the reines: it is a remedy alſo for the dropſie. As for the cough, a very perfume therof will ſtay it, and the rather, if it be mixed with Roſin. The root ſodden in wine with Myrrhe, cleanſeth ſcurfe and dandruffe, it healeth alſo the ſpreading ulcers and running ſcals of the head. There is a juice beſides drawn from it, which becommeth like to Elaterium, or the juice of the wild Cucumber. Moreover, in any Reed, the beſt and moſt effectuall part thereof is that holden to bee, which is next to the root. The joints alſo and knots be of great efficacie. The Cyprian Cane is named Donax, the rind whereof, if it bee burnt and brought into aſhes, is ſingular for to bring hair again in places where it is ſhed: it healeth likewiſe ulcers growing to putrefaction. The leaves
D thereof are uſed, to draw forth any prickes or thornes. The ſame be of great vertue againſt S. *Anthonies* fire, the ſhingles, and ſuch like, yea and againſt all impoſtumations. The common and ordinary Reeds have an extractive or drawing facultie, if they be ſtamped green: which is not ment of the root onely, but alſo of the very ſubſtance of the Reed it ſelfe, which they ſay is of great operation. The root being reduced into a liniment, and applied with vinegre, cureth all diſlocations and eaſeth the pains of the chine bone. The ſame punned greene and new, ſtirreth to luſt, if it be drunke in wine. The downe or cotton growing upon the cane, if it bee put into the eares, cauſeth hardneſſe of hearing.

There groweth in Ægypt a certain plant named Papyrus, which reſembleth much the Cane or Reed: a thing of great uſe and commoditie, eſpecially when it is drie; for it ſerveth as a ſpunge
E both to ſucke up the moiſture in Fiſtulaes, and alſo to enlarge them. For ſwelling as it doth, it keepeth the ulcer open, and maketh way for the medicines to enter accordingly by that means. The paper made thereof when it is burnt, is counted to be cauſticke. The aſhes of it beeing drunke in wine, cauſe ſleepe: and applied outwardly, taketh away hard calloſities.

Touching Ebene, it groweth not (as I have alreadie ſaid) ſo neare unto us, as in Ægypt. And albeit my meaning & purpoſe is not to deale with any medicinable plants growing in the ſtrange and unknown countries of another world: yet in regard of the wonderfull properties that Ebene hath, I will not paſſe by it in ſilence. For, firſt and formoſt, the fine duſt or pouder filed from it, hath the name to be a ſingular medicine for the eyes: as alſo, that the wood therof being ground upon an hard ſtone, together with wine cuit, diſpatcheth away the cloudy miſt which overcaſteth
F the eyes. As for the root, if it bee uſed likewiſe and applied with water, it conſumeth the pin and web, and other ſpots in the eyes. The ſame being taken with equall quantitie of the hearb Dragon in honey, cureth the cough. In ſumme, Phyſicians repute and raunge Ebene among the medicines which be corroſive.

Oleander, called in Greeke Rhododendros, which ſome name Rhododaphne, and others Nerion,

rion,hath not been ſo happie yet,as to find ſo much as a name among the Latines. A ſtraunge G
and marvellous qualitie of this plant:The leaves are a very poyſon to all fourefooted beaſts; and yet they ſerve man as a preſervative and countrepoyſon againſt ſerpents,if they be taken in wine with Rue among.Alſo ſheepe and goats if they chance to drinke of the water wherin thoſe leaves lay ſoaked,will(by report)thereupon die.

Neither hath Rhus a Latine name,notwithſtanding it be much uſed in Phyſicke,& otherwiſe. For it is a wild plant growing of it ſelfe,bearing leaves like unto the Myrtle, upon ſhort ſtalks and branches;ſingular for to expell any poyſon and wormes out of the bodie: and beſides, called it is the Curriers ſhrub,for that they uſe to dreſſe their skins with the drie leaves therof,inſtead of pomgranat rinds.Of a reddiſh colour it is,a cubit in height,and a finger thick.Moreover,Phyſicians employ the medicines whereinto this Rhus is put, for bruiſes: likewiſe, for the flux proceeding H
from a feeble ſtomacke,as alſo for the ulcers in the ſeat.But the leaves ſtamped and incorporat with honey,and ſo brought into a liniment or ſalve with vinegre,doe heale cankerous ſores,ſuch as with inflammation doe eat away the fleſh to the very bone. Their decoction is ſingular to bee inſtilled into eares that run with filthie matter. Moreover,there is made a ſtomaticall compoſition of the branches of this Rhus,boiled,which ſerveth in the ſame caſes as the abovenamed Diamoron,*i.*of Mulberries: but if it have allum joined withall, it is of greater efficacie. The ſame
*This kitchin Rhus or meat-Sumach, is all one with the other: but that the cooks uſed the ſeed, and the curriers occupied the leaves and the branches.

being brought into a liniment,is paſſing good for the ſwellings in a dropſie. As for the *Rhus, which is called Erythros, *i.*the red, it is a ſhrub,and the ſeed thereof is both aſtringent and refrigerative.Much uſed is the graine or ſeed of this Rhus in ſtead of ſalt to pouder and ſeaſon meats. Laxative it is, and giveth a pleaſant taſt to any fleſh meats, eſpecially if Silphium bee mingled I
withall.Tempered with honey,it cureth and healeth all running ulcers: and in that manner prepared,it is excellent for the roughneſſe of a furred tongue,for places bruiſed,looking blacke and blew,or otherwiſe raw where the skin is raſed and pilled off.Nothing ſo ſoon healeth any wounds in the head, and bringeth them ſo quickly to cicatrice. And taken inwardly with other meats, it ſtoppeth the immoderat flux of womens fleurs.

As touching Madder,which ſome Greekes call Erythrodanus, others Ereuthodanus,and we in Latine Rubia,it is an hearbe different from Rhus Erythros abovenamed.Diers uſe it much to colour their wooll and woollen cloth,ſo doe curriers about their skins and leather. In Phyſicke it ſerveth to provoke urine: it cureth the jaundiſe,if it bee taken in mead or honied water: and reduced into a liniment with vinegre,it healeth the illfavoured tettars call Lichenes.Over and beK
ſides,it is good for the Sciatica and the palſie: in caſe the patient who drinke therof, do likewiſe bath every day. The root and ſeed both of Madder,draw downe womens months, ſtop the laske, and diſcuſſe or reſolve any apoſtumations breeding. The braunches and leaves thereof reduced into a cataplaſme and laid too,are good for the ſting of ſerpents. The leaves alſo have a ſpeciall propertie to colour the haire of the head.I read in ſome writers,That if this hearbe be tied about the necke or ſome other part of the bodie, and the patient doe no more but looke thereupon, it is ſufficient to cure the jaundiſe.

*Some take it to be *Aſperula*, *i.*Woodroſe.

The hearbe *Alyſſon differeth from this Madder,in regard of the leaves and branches only, which be leſſe.It tooke that name Alyſſon,becauſe thoſe that bee bitten with a mad dog,if they drinke it with vinegre,or weare it tied faſt about them, ſhall not likewiſe run mad. But it is very L
ſtrange which is ſaid moreover of this hearbe, namely,That the very ſight thereof is ynough to drie up and conſume that venomous matter or humour infuſed by the tooth of the ſaid dog, and which is the cauſe of madneſſe.

As for the Fullers weed,which the Latines call Radicula,and the Greekes Struthion,as I have beforeſaid,it ſerveth to ſcoure and prepare wooll and woollen cloth for the diers hand. In Phyſicke the broth or decoction thereof drunke,cureth the jaundiſe,and the infirmities or diſeaſes of the breaſt. It provoketh urine, looſeth the bellie, and cleanſeth the matrice, which is the cauſe, that Phyſicians call it Aureum poculum, *i.*the golden cup, or golden drinke. The ſame taken with honey in manner of an electuarie,to the quantitie of one ſpoonefull at a time,is of ſingular operation for the cough and ſhortneſſe of breath, when the patient cannot draw and deliver his M
wind but ſitting upright.Reduced into a liniment with parched Barley groats and vinegre, it cureth and cleanſeth the foule leproſie. Drunke with Panaces and Caper-roots, it breaketh the ſtone,and expelleth it out of the bodie. Sodden with Barley meale in wine, and brought to a pulteſſe,it diſpatcheth riſings in the fleſh,or broad flat biles called Pani.It is uſuallyput into emollitive

A litive cataplaſmes, yea, and into collyries ordained for to cleare the eyeſight. I know few things ſo good to provoke ſneeſing as this Radicula: neither is there a better hearbe for the ſpleene and the liver. The ſame alſo if it be drunke to the weight of a Romane denier or dram, in mead or honied water, helpeth thoſe that be ſhortwinded. So doth the ſeed thereof taken with water, cure the pleuriſie and any ſtitches or paine in the ſides.

To come now to Apocynon: a ſhrub it is bearing leaves like unto Ivie, but that they be ſofter and the ſhoots or tendrils thereof not ſo long: the ſeed is ſharp pointed, clift, or divided, full of a ſoft downe, and of a ſtrong or unpleaſant ſavor. Being given either to dogs or any other fourfooted beaſts in meat, it is their bane and killeth them. Moreover, there is the Roſemarie, whereof be two kinds: the one is barren & beareth no ſeed: the other, which riſeth alſo up in a ſtem or main
B ſtalke, carieth ſeed or a roſinous gummie fruit, called Cachrys. The leaves in ſmell reſemble frankincenſe. The root freſh and new gathered, reduced into a ſalve, healeth greene wounds. Applied unto the ſeat, it reduceth the fundament when it is fallen, into the right place, reſolve the ſwelling piles, and cureth the running hæmorrhoids. The juice both of the braunches and hearbe it ſelfe as alſo of the root, is ſingular for to ſcour the jaundiſe, and all things els which have need of clenſing and mundification: it cleareth and quickeneth the eyeſight. The ſeed is given to drinke with great ſucceſſe for all old accidents of the breaſt: but with wine and pepper it is good for the matrice, and helpeth to ſend downe womens monthly termes. Made into a cataplaſme with *cocle flower, it is applied with good effect unto the gout. It cleanſeth and ſcoureth away morphew: it
C ſerveth well to bring any part to heat that hath need of chauſing, yea, and to procure ſweat, if the caſe require, ſo the place be annointed therwith: alſo it helpeth any convulſion or cramp. Drunk in wine, it encreaſeth milke, ſo doth the root likewiſe. The very ſubſtance of the hearbe reduced into a liniment, cureth the wens called the Kings evill, if it bee applied unto them with vinegre: and taken with honey, it is good for the cough. As for Cachrys, there be many kinds of it, as I have ſhewed before. But this Cachrys of the Roſemarie aboveſaid, if it be rubbed, yeeldeth a ſubſtance or liquor of roſin. Contrarie it is to poyſons and ſtings of all venomous beaſts, but only of Snakes. It moveth ſweat, diſpatcheth the wringing torments of the bellie, and cauſeth nurces to have plentie of milke. Savine the hearbe, called by the Greekes Brathy, is of two ſorts: the one in leafe reſembleth the Tamariske, the other the Cypreſſe tree: Wherupon ſome have given it the name of Candie-Cypreſſe. Many uſe it in ſuffumigations and perfumes, for Frankincenſe. But in
D medicines we Phyſicians take the double weight of it in ſtead of Cinnamon, and it is thought to have the ſame operations and effects. It driveth back and keepeth down all ſwelling impoſtumes: it repreſſeth alſo thoſe ulcers which be corroſive and cankerous. Brought into a ſalve, it mundifieth filthie ſores. Applied outwardly, it draweth dead infants out of the bodie: and no leſſe it worketh, being but received by way of perfume. Made into a liniment, it healeth S. *Anthonies* fire, and carbuncles. Drunke with honey and wine, it cureth the jaundiſe. It is ſaid, that the very fume or ſmoke of this hearbe will rid hens and ſuch like pullein of the pip.

Much like unto this hearbe Savine, is that which they call Selago. Many ceremonies are to
E be obſerved in the gathering of this hearb: Firſt and formoſt, the partie who is to gather it, muſt be apparelled all in white, as it were in a ſurplice; goe barefoot he muſt, and have his feet waſhed in faire water: before he commeth to gather it, he ought to do ſacrifice unto the gods with bread and wine: moreover, no knife or yron toole is to bee uſed hereabout: neither will any hand ſerve but the right, and that alſo muſt doe the deed not bare and naked, but by ſome skirt or lappet of his coat betweene, which was done off with the left hand; and ſo cloſely beſides, as if he came to ſteale it away ſecretly: laſt of all, when it is gathered, wrapped it muſt be, and carried in a new linnen napkin or towell. The Druidæ of France have a great opinion of this hearbe thus gathered, and have preſcribed it to be kept as the onely preſervative againſt all hurtfull accidents & misfortunes whatſoever, ſaying, that the fume thereof is ſingular good for all the infirmities and diſeaſes of the eyes. The Druida or Prelats of Fraunce abovenamed, make great account of another hearbe growing in moiſt grounds, which they name Samolus: and (forſooth) if you did well
F you ſhould gather it faſting, with the left hand in any wiſe: and in the gathering, not looke backe howſoever you doe. Moreover, when it is thus gathered, it ought not to be laid downe out of the hand in any place, but in the troughs, ciſternes, or channels, where ſwine, kine, or oxen uſe ordinarily to drinke, where it muſt be likewiſe ſtamped: and then without faile, the foreſaid cattaile ſhall be wariſhed and ſecured from all diſeaſes.

*Ærina. Some read *Ervina*, i. of Ervile.

As concerning gums, I have heretofore declared how many kinds thereof are to be found. G
To ſpeake of them in generall, The better that any gum is, the more effectuall bee the operations thereof: hurtfull they are to the teeth: they have a propertie to thicken or coagulat bloud, and therfore be good for thoſe who caſt and reach up bloud: likewiſe they be ſingular for burns, as alſo for the windpipe and inſtruments of reſpiration. The ſuperfluous and corrupt urine within the body, they provoke and give paſſage unto. They dull and diminiſh the bitterneſſe of other medicines wherin they be mingled, howſoever otherwiſe they be aſtringent and do fortifie other qualities. That which commeth from the bitter almonds, and is of a ſtronger operation to thicken and incraſſat, hath vertue alſo to heat the bodie. The beſt gums be thoſe of plumtrees, cherie trees, and vines: they have all of them a drying and aſtringent qualitie, if any part be annointed with them: and diſſolved in vinegre, they kill the tettars or ringworms in children, and heale H
them up. Being drunke to the weight of foure oboli, in * new wine, they be good for any inveterat cough. Moreover, they be thought to make the colour more freſh, lively, and pleaſant; to procure and ſtirre up the appetite to meat; alſo to helpe thoſe who be pained with the ſtone, in caſe they be drunke in ſweet wine cuit. And to conclude with ſome particularitie, The * gum of the Ægyptian thorne is ſoveraigne for wounds, and all accidents of the eyes.

* *Muſto*, or *Miſto, id eſt*, in ſome made or compound wine.

* Thought to be *Acacia*.

Chap. xii.

*Of the Arabian thorne: of the * white thiſtle Bedegnar: of Acanthium and Acacia.*

* Our la lies thiſtle.

I
TOuching the Arabian Thorne or Buſh, and the commendable qualities thereof, I have ſufficiently ſpoken in the treatiſe of perfumes and odoriferous confections: yet thus much moreover I have to ſay of the medicinable vertues, That it doth thicken and incraſſat thin and rheumaticke humors, it reſtraineth all catarrhs and diſtillations, it repreſſeth the reaching up bloud, and ſtaieth the immoderat flux of womens monethly tearms: for which purpoſes the root is more effectuall than any other part of the plant.

The ſeed of the white Thiſtle is ſingular for the ſting of ſcorpions: a garland made of it and ſet upon the head, aſſuageth the paine thereof. Much like unto this, is that Thiſtle which the Greeks call Acanthion, but that the leaves be much ſmaller, and thoſe are ſharpe pointed and prickly all about the edges, and covered with a downe reſembling a cobweb; which the people K
of the Eaſt countries doe gather, and therof make certaine cloth for garments, reſembling ſilke. The leaves or roots drunke in ſubſtance, are ſuppoſed to bee a ſingular remedie for the crampe or convulſion which draweth the necke and bodie backeward.

Moreover, there is a kind of Thorne, whereof commeth Acacia, and it is the juice thereof. It is found in Ægypt to iſſue from certaine trees, which be white, blacke, and greene: howbeit, the beſt Acacia by farre, is that which the former (that is to ſay, the white and the blacke) doe yeeld. There is made likewiſe a kind of Acacia in Galatia, which is moſt ſoft and tender; and the tree that affourdeth it, is more prickie and thornie than the reſt. The ſeed or fruit of all theſe trees, is like unto Lentils, but onely that the graine is leſſe, and the cod or huske wherein it lieth, ſmaller. The right ſeaſon to gather this fruit, is in autumne; for if it be taken before, it is too too ſtrong. L
For to draw this juice which we call Acacia, the cods wherin the grains lie, ought to be throughly ſteeped firſt in raine water: ſoone after, when they be punned or ſtamped in a mortar, the ſaid juice is preſſed foorth with certaine inſtruments ſerving for the purpoſe: which done, they let it remaine within mortars in the ſun, and there take the thickening; and ſo at length reduce it into certain trochiſchs, and reſerve them for uſe. There is a juice likewiſe drawne out of the leaves, but the ſame is not ſo effectuall as the other. The curriours uſe to dreſſe their skins with the ſeed or grains thereof, in lieu of Galls. The juice which the leaves of the Galatian thorne aboveſaid doth yeeld, (and namely, the blackeſt) is rejected for naught; like as that alſo which is of a deepe red colour. Contrariwiſe, that which is either purple or aſh-coloured and ruſſet to ſee too, as alſo that which will ſoone be diſſolved, is of exceeding efficacie to thicken and coole withall; and is M
preferred before all other in colyries or eyeſalves. Now for theſe uſes, ſome are wont to waſh the troſches aforeſaid, others torrifie and burne them. They are good to colour the haire of the head blacke: they heale S. *Anthonies* fire, and corroſive ſores; yea and all grievances of the bodie that conſiſt in moiſture: they cure any impoſtumes, joynts that are bruiſed, kibed heels, and the turning

A ning up of the skin and fleſh from the naile roots. They repreſſe the exceeding flux of womens monthly fleurs: the matrice and tiwill if they be ſlipt and falne out of the bodie, they reduce into their place againe. In ſumme, for the eyes, for the ſores and infirmities of the mouth, and naturall parts ſerving for generation, they be ſoveraigne.

Chap. XIII.

*Of the common Thorne: of the wild or wood Thorne: of Eryſiſceptrum: of Spina Appendix: of * Pyxacanthus, and * Paliurus: of Hulver or Hollie: of Yeugh: and Brambles: with the medicinable vertues of them all.*

* Box-thorne. * Some call it Chriſts thorn.

B THe common Thorne alſo, wherewith the Fullers uſe to fill their vats and caudrons, hath the ſame operation that * Struthium, and is put to the ſame uſe. Many there bee verely in all parts of Spaine, who uſe it both in ſweet pomanders, and alſo in ointments, calling it Aſpalathus: and without all doubt, there is a kind of wild white thorne of this race growing in the eaſterly countries (as I have ſaid) among the woods, and riſeth to the full heigth of a good tree. Yea and a ſhrubbie plant there is, lower than the other, but as full of pricks, growing in Niſyrus and the Iſlands of the Rhodians, which ſome call Eryſiſceptron, others Adipſatheon, or Dipſacon, or Dracheton: the beſt is that which groweth nothing like to the Ferula, and beeing deſpoiled of the rind, is of a reddiſh colour enclining to purple. It is found in many places, but not every where odoriferous. Of what force it is, when the rainbow ſeemeth to reſt upon it, I have

C ſhewed alreadie. It healeth the filthie cankers or ſores of the mouth, and the ſtinking ulcers or alepocks in the noſthrils: likewiſe the ſores, botches, and carbuncles in the privie parts; the crevaiſes alſo and clifts in the fundament, or elſewhere, applied unto the place affected: but if it bee drunke, it abateth all ſwelling of ventoſities. The barke or rind thereof, diſpatcheth thoſe obſtructions and impediments which cauſe the ſtrangurie or piſſing by drop-meale. The decoction is a ſingular remedie for them that either piſſe or vomit bloud. The foreſaid rind ſtoppeth the flux of the belly. The like effects is that thought to worke which groweth in the woods [and is called Aſpalathus of the Levant.]

* *Radicis*, for it is called *Radicula*.

There is a kind of thornie buſh called * Appendix, for that there bee red berries hanging thereto, which be likewiſe named Appendites. Theſe berries, either raw by themſelves, or elſe

D dried and boiled in wine, doe ſtay the flux of the belly, and beſides aſſuage the torments and wrings therof. As for the berries of Pyxacanthus, they be drunke to right good purpoſe againſt the ſting of ſerpents. Paliurus alſo is a kind of thornie buſh: The people of Africk call the ſeed of it Zura, which is found to be moſt effectuall againſt ſcorpions; and for thoſe who are troubled with the ſtone, and the cough. The leaves have an aſtringent or binding qualitie. The root reſolveth and diſpatcheth biles, impoſtumations, and botches: and if the ſame be taken in drink, it procureth urine: if it be ſodden in wine, and the decoction drunke, it ſtoppeth a laske, and is a defenſative againſt the poiſon of ſerpents: the root eſpecially is given in wine. Some there be who ſtampe the leaves, putting ſalt thereto, and beeing reduced into the forme of a cataplaſme, apply the ſame to the gout. The leaves bee good to ſtay the immoderat flux of womens terms,

E the looſeneſſe of the belly occaſioned by a feeble ſtomacke, the bloudie flix, and the inordinat motions of chollerique humors both upward and downward. The root boiled and brought to a liniment, draweth forth whatſoever ſticketh within the bodie. Soveraigne it is and of exceeding great operation, in caſe of diſlocations and ſwellings.

* Some take it for the Berberie buſh.

As touching the Holly or Hulver-tree, if it be planted about an houſe, whether it be within a citie, or ſtanding in the countrey, it ſerveth for a countrecharme and keepeth away all ill ſpels or inchantments. *Pythagoras* affirmeth, that the floure of this tree will cauſe water to ſtand all upon an yce: alſo that a ſtaffe made thereof, if a man doe fling it at any beaſt whatſoever, although it chaunce to light ſhort for default of ſtrength in his arms who flung it, will notwithſtanding etch forward and roll from the place where it fell upon the earth, and approch neare to the beaſt afore-

F ſaid; of ſo admirable a nature is this Holly tree.

The fume or ſmoke of any Yeugh tree, killeth mice and rats. Neither hath Nature produced brambles for nothing els but to pricke and do hurt; for ſuch is her bountie, that the beries which they beare are mans meat, beſides many other medicinable properties: for they have a deſiccative and aſtringent vertue, and ſerve as a moſt appropriat remedie for the gumbs, the inflamma-

tion of the Tonſils, and the privie members. The flours alſo as well as the berries of the brambles, G
be ſingular againſt the Hæmorrhoid and the Preſter, which are the two wickeddeſt and moſt miſ-
chievous ſerpents that be. The wounds inflicted by ſcorpions, they cloſe and heale up againe
without any danger of rankling or apoſtemation: and withall, they have a propertie to provoke
urine. The juice drawne and preſſed out of the tendrons or young ſprouts of brambles ſtamped,
and afterwards reduced unto the conſiſtence of honey by ſtanding in the Sun, is a ſingular me-
dicine either taken inwardly or applyed outwardly, for all the diſeaſes of the mouth and eyes; for
them that reach up bloud; for the ſquinancie; the accidents of the matrice and fundament; fi-
nally, for the immoderat flux of the belly occaſioned by the weakneſſe of ſtomacke. As for the
ſores and infirmities of the mouth, the very leaves alone of the bramble if they be but chewed,
are paſſing good: but if they be reduced into a liniment and ſo applied, they heale running ſores H
or any ſcalls whatſoever in the head: & even ſo being laid alone upon the left pap, they be hole-
ſome for ſuch as are given to the fainting and trembling of the heart, and ſubject to fall into cold
ſweats: likewiſe being applied accordingly, they eaſe the paine of the ſtomack, and ſuch as have
their eies readie to ſtart out of their head: and to helpe the infirmities of the ears, their juice is
excellent to be dropped into them. The ſame juice incorporat with the cerot of roſes, healeth
the clifts and ſwelling knubs in the fundament: and for the ſaid infirmitie, the decoction of yong
tendrils in wine, is a preſent remedie, in caſe the place be bathed and fomented therein. The
ſame yong ſprings eaten alone by themſelves in a ſalad, in manner of the tender crops and ſpurts
of the Colewort, or boiled in ſome harſh, groſſe, and greene wine, do faſten the teeth which be
looſe and ſhake in the head: they ſtop a laske, and reſtraine an unnaturall iſſue or flux of bloud;
and beſides, are good in the bloudie flix. Beeing dried in the ſhade, and afterwards burnt, their I
aſhes are ſingular to ſtay the uvula for falling. The leaves alſo being dried and beaten to powder,
are excellent good for the farcines and ſores in horſes, and ſuch like beaſts. As for the black ber-
ries which theſe brambles doe beare, there is a kind of Diamoron made of them, which is far bet-
ter for the infirmities of the mouth and more effectuall, than the other of the garden mulberries.
The ſame being ſo prepared in that ſtomaticall compoſition aforeſaid, or drunke only with Hy-
poquiſtis and hony, be ſingular to repreſſe the furie of choller provoking both waies: they be cor-
diall likewiſe, in caſe of faintings and cold ſweats: and laſtly, a preſervative againſt the poiſon of
the venomous ſpiders. Among thoſe medicines which they call Stypticke or Aſtringent, there is
not a better thing than to boile the root of this blackberrie bramble in wine to the thirds; and
namely to make a collution therewith to waſh the cankers or ſores breeding in the mouth, or to K
foment the ulcers growing in the fundament. And verely of ſuch a binding and aſtringent force
is this bramble, that the very ſpongeous balls that it beareth, will grow to be as hard as ſtones.

Another kind of brier or bramble there is, upon which groweth a roſe: ſome call it Cynosba-
tos, others Cynoſpaſtos: it beareth a leafe like to the print or ſole of a mans foot. A little ball or
pill it breedeth, furred or briſtled much after the manner of the cheſtnut, which ſerveth as a ſpe-
ciall remedie for thoſe that be ſubject to the ſtone. As for Cynorthodos, it is another plant diffe-
rent from this, whereof I will ſpeake in the next booke.

Chap. xiiii. L

Of *Cynosbatos, and the Raſpiſe: of the Rhamnos, and of Lycium and Sarcocolla. Of a certaine compoſition in Phyſicke called Oporice.

i. the Cane-brier or Can-cre brier.

AS for the bramble named Chamæbatos, it beareth certain black berries like grapes, with-
in the kernell whereof it hath a certain ſtring like a ſinew, whereupon it came to be called
Newroſpaſtos: it is a different plant from the Caper, which the Phyſicians have named alſo
Cynosbatos. Now the tender ſtems of the foreſaid * Cynosbatos or Chamæbatos condite in
vinegre, are good for them to eat who are troubled with the opilation of the ſplene, and with ven-
toſities; for it is a ſingular remedie for thoſe infirmities. The ſting or ſinew thereof chewed with
maſtick of Chios, purgeth the mouth. The wild roſes that grow upon this brier, being incorporat
with ſwines greaſe, are excellent for to make the haire grow againe, when it is ſhed by ſome infir- M
mitie. * The berries of theſe brambles if they be tempered with oile olive made of greene and
unripe olives, colour the haire blacke. The proper ſeaſon to gather the floures of theſe brambles
that carie berries like to mulberies, is in harveſt time. The white kind of them drunk with wine, is a
ſoveraigne remedie for the pleuriſie, and the flux of the ſtomacke. The root ſodden to the thirds,

* *Rubus canis.*

* Obſerve how eõfuſedly *Plinie* ſetteth down the ſtorie of *Cynosbatos* and *Chamæbatos*, *i.* the Cane-brier, and the Blackberrie brãble,

ſtoppeth

A ſtoppeth a laske, and ſtaieth the flux of bloud: likewiſe a collution made therwith, faſteneth looſe teeth, if they be waſhed withall. The ſame decoction or liquor is good to foment the ulcers of the ſeat privie parts. The aſhes of the root burnt, keepe up the uvula from falling.

The Raſpis is called in Latin Rubus Idæus, becauſe it groweth upon the mountain Ida, and not elſewhere *[ſo plenteouſly.] Now is this bramble more tender, & leſſe in growth: it putteth forth alſo fewer ſtalks upright, and thoſe more harmleſſe and nothing ſo prickie as the other brambles before-named: beſides, it loveth well to grow under the ſhade of trees. The flours of this bramble reduced into a liniment with hony, reſtraine the flux of rheumatick humors into the eies, and keepeth down the ſpreading of S. *Anthonies* fire: and given in water to drinke, it cureth the infirmities of the mouth. In all other caſes, it hath like operations to the former brambles. * *Ex Dioſcor.*

B Among the divers kinds of Brambles, is reckoned the Rhamne, which the Greeks call Rhamnos, notwithſtanding that it is whiter and more branching than the reſt. This Rham beareth many flours, ſpreading forth his branches armed with pricks not crooked or hooked as the reſt, but ſtreight and direct, clad alſo with larger leaves. A ſecond kind there is of them growing wild in the woods, blacker than the other, & yet inclining in ſome ſort to a red colour: this carieth as it were certain little cods. Of the root of this Rhamne boiled in water, is made that medicine which is called Lycium. The ſeed of this plant draweth down the after-birth. The former of theſe twain (which alſo is the whiter) hath a vertue more aſtringent and cooling than the other, and therfore better for impoſtumations and wounds: howbeit the leaves of both, either greene or boiled, are uſed in liniments with oile for the ſaid purpoſe. But as touching Lycium, the beſt of all other is (by re-

C port) made of a certain Thorne tree or buſh, which they call Pyxacanthos Chironia, the forme wherof I have deſcribed among the Indian trees: and indeed the moſt excellent Lycium by many degrees, is that Indian Lycium thought to be. The manner of making this Lycium, is in this wiſe: They take the branches of this plant, togither with the roots which be exceeding bitter, and after they be well punned and ſtamped, ſeeth them in water within a braſen pan, for three daies togither or thereabout: which done, they take forth the wood, & ſet the liquor over the fire again, where it taketh a ſecond boiling, ſo long untill it be come to the conſiſtence or thickneſſe of honey: howbeit ſophiſticated it is many times with ſome bitter juices, yea and with the lees of oile and beaſts gall. The very froth and ſcum, in manner of a florie that it caſteth up, ſome uſe to put into colyries and medicines for the eies. The ſubſtance of the juice beſides is abſterſive, it mundi-

D fieth the face, healeth ſcabs, cureth the exulcerations or frettings in the corners of the eies: it repreſſeth old rheums and diſtillations, clenſeth ears running with filthie matter, repreſſeth the inflammations of the almonds in the mouth called Tonſillæ, and of the gums; ſtaieth the cough, reſtraineth the reaching & caſting of bloud, if it be taken to the quantitie of a beane: being ſpred in maner of a plaſtre or liniment and ſo applied, it drieth up running and waterie ſores; it healeth the chaps and clifts in any part of the bodie, the ulcers of the ſecret parts ſerving for generation, any place fretted or galled, new and green ulcers, yea and ſuch as be corroſive and withall growing to putrefaction: it is ſingular for the calloſities, werts, or hard corns growing in the noſthrils, and all impoſtumations: moreover, women find great helpe by drinking it in milke, for any violent ſhift or immoderat flux of their monthly ſicknes. The beſt Indian Lycium is known by this,

E That the maſſe or lump thereof is black without-forth, red within when it is broken, but ſoone it commeth to a black colour. An aſtrictive medicine this is, and bitter withall; and hath the ſame effects which the other Lycium is reported to have, but ſpecially if it be applied to the privie members of generation. As touching Sarcocolla, ſome bee of opinion that it is the gum or liquor iſſuing from a certain thornie plant or buſh: and they hold, that it reſembleth the crums of frankincenſe, called Pollen or Manna Thuris, and in taſt ſeemeth to be ſweetiſh, & yet quick and ſharpe withall. This Sarcocoll ſtamped with wine, and ſo applied, repreſſeth all fluxes: and in a liniment, good it is for yong infants. This gum alſo by age and long keeping, waxeth blacke; but the whiter is the better, and thereby is the goodneſſe knowne.

But Before I depart from this treatiſe of Trees, and their medicinable vertues, I muſt needs ſay,

F we are beholden to them yet for one excellent medicine more, which is called Oporice by the Greeks, as one would ſay, made of fruits. This compoſition is ſingular for the bloudie flix or exulceration of the guts; alſo for the infirmities of the ſtomacke. The manner of making it, is in this wiſe: Take five quinces, with their kernels, ſeeds and all, as many pomegranats likewiſe, let them boile gently over a ſoft fire in one gallon of new white wine, put therto the weight or meaſure of

one ſextar of Serviſes, and as much in quantitie of the Sumach which is called Rhus Syriacum, togither with halfe an ounce of ſaffron; ſeeth all theſe togither to the heigth or conſiſtence of honey. Thus much concerning the properties of Trees ſerving in Phyſicke. It remaineth now to annex hereunto a diſcourſe of thoſe plants which the Greeke writers (by giving them names in ſome analogie reſpective unto trees) have left in ambiguitie and made us doubt of them whether they be trees or hearbs. G

Chap. xv.

*Of * Chamædrys, i. Germander: * Chamædaphne, i. Lawreoll: * Chamelæa: * Chamæſyce: * Chamæciſſos, i. Ale-hoove: * Chamæleuce, i. Fole-foot: * Chamæpeuce: * Chamæcypariſſus, i. Lavander-cotton: * Ampelo-praſos: Stachys: Clinopodium, Centunculus, and Clematis Ægyptia, with the medicines that they afford.* H

q. ground-oke, or petie oke.
q. ground-bay, or pety-Lawrell.
q. ground-Olive, &c.
q. ground-figtree, &c.
q ground-Ivie.
q. ground-Poplar.
q ground-Pine, or Pitch tree.
q. ground-Cypreſſe.
q. Porret-vine, or Leek-vine.

GErmander is an hearb, called in Greeke Chamædrys, and in Latine Triſſago: ſome have named it Chamædrope, others Teucrion: it beareth leaves for bignes reſembling mints, in colour like unto the oke leaves, cut and indented alſo after the ſame manner. Of ſome it is called Serrata, and they affirme that the firſt patterne of a ſaw was taken from the leaſe of this hearb, whereupon it ſhould be ſo called. The floure beareth much upon the purple colour: it loveth to grow in ſtonie places, and would be gathered whiles it is full of juice: and thus gathered in due ſeaſon, whether it bee taken in drinke, or applied outwardly in a liniment, moſt effectuall it is againſt the poiſon of ſerpents: likewiſe it is holeſome for the ſtomacke, good againſt an inveterat cough; ſingular to cut, diſſolve, and raiſe the tough fleame ſticking in the throat: a ſpeciall remedie for ruptures, convulſions, and pleuriſies: it waneth away the overgrowne ſplene: it provoketh urine, and womens fleurs: in which regard, a bundle or handfull of Germander boiled in three hemines of water, untill a third part be conſumed, maketh a ſoveraigne decoction or drinke for thoſe who are newly falne into a dropſie. Some there be, who ſtampe this hearbe and ſprinkle water among, and ſo reduce it into troſchs. Over and beſides the vertues before rehearſed, it is good to heale botches newly broken and full of matter; yea old ulcers, though they bee filthie and putrified, if it be applied thereto: for the ſplene, it is uſually taken with vinegre: and this juice doth chaufe and heat thoſe parts which be annointed therewith. I K

As touching Lawreoll, called by the Greeks Chamædaphne, it ariſeth up with one only ſtem of a cubit high or thereabout: the leaves are but ſmall, howbeit like to thoſe of the Lawrell: it bringeth forth a reddiſh ſeed appearing among the leaves, which being uſed in a liniment freſh and green, eaſeth the head-ach. The ſame cooleth all exceſſive heats: and if it be drunke in wine, appeaſeth the wrings and torments of the belly. The juice thereof taken in drinke, draweth down womens fleurs, and provoketh urine: the ſame applied in wooll to the naturall parts of a woman, cauſeth her to be ſoone delivered when ſhe is in hard travaile of childbirth.

* otherwiſe called *Mezereon*, Widow-waile.

As for * Chamelæa, it hath leaves like unto thoſe of the olive: the ſame be bitter in taſt, and in ſmell odoriferous. This plant groweth in ſtonie grounds, and exceedeth not in heigth a hand-breadth or ſpan at moſt: a purgative hearb it is; for thereof is made an excellent ſyrrup to evacuat fleame and choller; namely, if there be taken one part of the leaves of this hearbe, with two parts of wormewood, and ſo boiled; for certainly this decoction drunke with hony, is ſingular for to purge the foreſaid humors. A cataplaſme made with the leaves, cleanſeth ulcers. It is commonly ſaid, that if this hearbe be gathered before the ſun riſing, and the partie do ſay expreſſely in the gathering, That it is for the pin and web in the eyes; it will diſpatch and rid away the ſaid infirmitie, if one doe but weare it tied about him. And howſoever it be gathered, whether it be with any ſuch circumſtance and ceremonie, or without, yet is it ſingular for the haw gnawing in the eyes of horſes and ſheepe. L

Chamæſyce beareth leaves reſembling thoſe of the Lentill, but they alwaies creepe along the ground and riſe not up. This hearbe groweth in drie and ſtonie grounds: the ſame boiled in wine and uſed as a liniment unto the eyes, cleareth their ſight; for it is ſingular to diſpatch and remoove cataracts, ſuffuſions, and cicatrices, growing therein: as alſo to rid away the miſtie clowds and films that overcaſt the ſight. Being put up into the matrice within a linnen cloath in manner of a peſſarie, it allaieth the pains thereof. Warts of all ſorts it taketh away, if they be annointed M

A nointed therewith. It is a ſoveraigne remedie alſo for thoſe who cannot take their wind but ſitting upright.

*Chamæciſſos groweth up ſpiked with an ear like unto Wheat, and ordinarily putteth forth five braunches, and thoſe full of leaves. When it ſheweth in the flower, a man would take it to be the *white Violet or Gilloſie. The root is but ſmall. They that are troubled with the Sciatica, uſe to drinke the leaves thereof to the weight of three oboli in two cyaths of wine, for ſeven daies together: but it is an exceeding bitter potion.

* It is not our ground Ivie or Alehove. *Viola alba.

As for Fole-foot, it is called in Greeke Chamæleuce: but we in Latine name it Farranum or Farfugium. It loveth to grow by river ſides. The leaves ſomewhat reſemble thoſe of the Poplar, but that they be larger. If the root of Fole-foot be burnt upon the coales made with Cypreſſe
B wood, the ſmoke or perfume therof received or drunk through a pipe or tunnell into the mouth, is ſingular for an old cough.

Touching *Chamæpeuce, in leafe it is like unto the Larch-tree: a plant very appropriat to the paine of the backe and the loines. The hearbe Chamæcypariſſos, if it bee drunke in wine, is ſingular good againſt all the venomous ſtings of ſerpents and ſcorpions.

*Some take it for Chamæpitys.

The hearbe Ampelopraſos groweth in vineyards, bearing leaves reſembling Porret: but it cauſeth them to belch foure that eat thereof. Howbeit, of great power it is againſt the ſting of ſerpents. It provoketh urine and womens monthly termes. And yet whether it be drunke or applied outwardly, it is paſſing good for them that piſſe bloud, and repreſſeth the iſſue & eruption thereof. Our midwives uſe to give it unto women newly delivered and brought to bed: Likewiſe it is
C found to availe much unto them that be bitten with mad dogs.

Moreover, the hearbe called Stachys hath a reſemblance alſo to *Porret, but that the leaves be longer and more in number: it yeeldeth a pleaſant ſmell, and the leaves be of a pale colour, enclining ſomewhat to yellow. The nature of this plant is to move the monthly purgation of women. As for Clinopodium (called otherwiſe Cleonicion, Zopyron, and Ocymoeides) like it is to running wild Thyme, and full of braunches, growing up a ſpan or handfull high at the leaſt. It groweth in ſtonie places, with a ſpoakie tuft of flowers ſhewing in a round compaſſe, and for all the world reſembleth the feet or pillers that *beare up a table or bed. This hearbe taken in drinke is good for convulſions, ruptures, ſtranguries, and ſerpents ſtings. So is the ſyrrup or juleb that is made thereof, by way of decoction. Thus much of thoſe hearbs, which in name carie a ſhew and reſemblance of Trees.

* πράσιον, i. Porri: but it ſeems that *Plinie* ſhould have read πράσιον, i. *Marrubij* or Horehound, out of *Dioſcorides*, as *Rondeletius* hath obſerved. Whereupon it took the name Clinopodium.

D

It remaineth now to write of ſome other hearbs, which I muſt needs ſay are of no great name and reckoning, howbeit ſuch as be endued with wonderfull vertues. As for the famous and notable hearbes indeed, I will reſerve the Treatiſe of them for the bookes following. And firſt I meet with that which we in Italie call Centunculus, but the Greeks Clematis, with leaves pointed like the beake of a bird, or reſembling the cape of a cloake, growing cloſe to the ground in toiled corne fields. This hearbe is moſt effectuall and ſingular above all other, for to ſtay a laske, if it be drunke in ſome red or greene hard wine. The ſame beaten into pouder, and taken to the weight of one denier Roman, in five cyaths of Oxymell or hot water, ſtancheth bleeding: and yet in that ſort it is of great effect to fetch away the after-birth of women lately delivered.

E

But there be other hearbes among the Greek writers, going under the name of Clematides: and namely one, which ſome call Echites, others Lagines, and there are beſides who name it Petie-Scammonie; and in very truth, braunches it hath a foot long, full of leaves, and not unlike to thoſe of Scammonie, but that the leaves be more blacke or duskiſh, and ſmaller. This hearbe is found as well in vineyards as corne lands. People uſe to eat this hearb with oile and ſalt, as they doe Beets, Coles, and other ſuch pothearbes: and ſo eaten, it maketh the bodie ſoluble. And yet nevertheleſſe, thoſe who bee troubled with the bloudie flix, are wont to take it in ſome aſtringent wine with Lineſeed, and find it to work with good ſucceſſe. The leaves applied unto the eyes with parched Barley groats, doe reſtraine the wateriſh humors which fall thither, ſo there bee a fine linnen cloth wet *between. The ſame applied in a pulteſſe to the wens called the Kings evill, bring
F them firſt to ſuppuration, and afterwards having Hogs greaſe put thereto, heale them throughly. Incorporat with greene oile Olive, they eaſe the hemorrhoids: and with honey helpe thoſe that be in a Phthiſicke or Conſumption. If nources eat them with their meat, they ſhall have good ſtore of milke in their breaſts. And if they annoint therewith the heads of their young infants, the haire will come the thicker. A collution made with them and vinegre, aſſuageth the tooth-

*Suppoſito: ſome read contrariwiſe, *ſuperpoſito.*

ach,

ach, if the mouth be waſhed therewith. To conclude it ſtirreth ap to fleſhly luſt. G

There is beſides another kind of Clematis, knowne by the name of the Ægyptian Clematis: howſoever ſome call it Daphnoeides, others, Polygonoeides. Leaved it is like the Lawrell, ſave that the leaves bee long and thin. But againſt all ſerpents, and eſpecially the Aſpides, it is a ſoveraigne countrepoyſon if it bee drunke in vinegre. Ægypt bringeth foorth this hearbe in great abundance.

Chap. xvi.

Of Aron, Dracunculus, or Dracontium. Of Aris. Of Milleſoile. Of another hearbe of that name. Of Pſeudobunium. Of Myrrhis and Onobrichis: with their medicinable vertues. H

Wake-robin. Dragon.

THere is a great difference betweene *Aron (of which hearbe I have written among thoſe with bulbous roots) and *Dracontium: although writers bee at ſome variance about this point, for ſome have affirmed that they be both one. Howbeit *Glaucias* hath diſtinguiſhed them, in that the one groweth wild, and the other is planted: and he pronounceth and calleth Dragon, the ſavage Aron. Others are of opinion, That there is no other difference between them, but that the onion root is called Aron, and the ſtem of the ſame hearbe Dracontium: whereas indeed there is no likeneſſe at all betweene the one and the other, if ſo be that Dracontium of the Greekes be the ſame that we call Dracunculus in Latine. For Aros hath a blacke root growing broad, flat, and round, yea, and farre greater, inſomuch as it is a good handfull: but the root of Dracunculus is ſomewhat red, and the ſame wrythed and folded round in manner of a Dragon, whereupon it tooke that name. Nay, the very Greekes themſelves have made an exceeding great difference, betweene Dragon and Wake-Robin: for they affirme, That the ſeed of Dragon is hot and biting, and beſides, of ſuch a virulent and ſtinking ſmell, that the very ſent thereof is ynough to drive a woman great with child to travaile before her time, and to ſlip an untimely birth. Contrariwiſe, they have wonderfully commended Aron: For firſt and formoſt, they prefer the female of this kind as a principall meat, before the male, which is harder to be chewed, and longer ere it be concocted and digeſted: moreover, they affirm, That as well the one as the other, doth expectorat the fleame gathered in the cheſt: and whether it be dried and brought into pouder and ſo the drinke ſpiced withall, or otherwiſe taken in forme of a lohoch or electuarie, it provoketh both urine and alſo womens monthly termes. Drunke with Oxymell, it mundifieth and comforteth the ſtomacke: and Phyſicians have given it in Ewes milke for the exulceration of the guts: & roſted under the embers, they have preſcribed it to be taken with oile for the cough: Some have ſodden it in milke, and given the decoction thereof to be drunke in that caſe. They have appointed it alſo to bee boiled, and then applied accordingly, to waterie eyes for to repreſſe the violence of the rheume: likewiſe, unto places blacke and blew with ſtripes: as alſo for the inflammation of the amygdales: alſo, they have given direction to inject the ſame with oile by way of clyſtre, as an excellent remedie for the Hæmorrhoids: and to applie it in a liniment with honey, for to take away the pimples and freckles of the skin. *Cleophantus* hath given it the praiſe of an excellent antidote or countrepoyſon: preſcribing alſo the uſe thereof for the pleuriſie and inflammation of the lungs, in the ſame manner, as in caſe of the cough: he appointed likewiſe to beat the ſeed into pouder, and being mixed either with common oile or oile roſat, to drop it into the eares for to aſſuage the paine. *Dieuches* ordained, to take and temper it with meale, and ſo to worke it into a paſte, and to give the bread ſo made, unto them that cough: to thoſe who be ſhort winded: ſuch alſo as cannot breath unleſſe they ſit upright: and laſtly, to as many as reach up filthie matter out of their breaſt. *Diodotus* the Phyſician made therof an electuarie or lohoch with honey, for them to licke who are in a Phthiſicke, or otherwiſe diſeaſed in the lights: and hee appointed it to bee laid as a pulteſſe for fractures of bones. There is not a beaſt or living creature whatſoever, but if the ſhap or naturall parts be annointed therewith, it will fetch away the fruit of their wombe. The juice drawne out of the root, if it be incorporat with Atticke honey, ſcattereth the miſtie clouds and filmes in the eyes that trouble the ſight: the ſame alſo cureth the defects and infirmities of the ſtomacke. And a ſyrrup made with the decoction therof and honey, is good to ſtint a cough. All ulcers whatſoever, bee they woolves, cankerous ſores, or otherwiſe corroſive and eating forward ſtill: yea, the very illfavoured Polype and Noli-me-tangere in the noſthrils, the

These deſcriptions agree not with our Wake robin and Dragon.

I K L M

A the juice of this root dooth cure and heale wonderfully. The leaves ſodden in wine and oile, are good to be applied unto any burne or place ſcalded. Being eaten in a ſallad with ſalt and vinegre, they purge the bellie: ſodden with honey, and applied as a cataplaſme, they are good for diſlocations and bones out of joint. Semblably, the ſaid leaves, whether they bee greene or dried, are excellent for the gout in any joint, if they bee laid too with ſalt. *Hippocrates* deviſed a plaſtre of them and honey together, which was ſingular for all impoſtumations whatſoever. For to bring downe the deſired ſickneſſe of women, two drams of the root or ſeeds (it skils not whether) taken in two cyaths of wine, is a ſufficient doſe. The ſame potion fetcheth away the after-birth, in caſe it make no haſt to come away after a woman is delivered of child. And for this purpoſe *Hippocrates* appointed the very bulbous root of Aron in ſubſtance to be applied unto the nature of a woman
B in the like caſe. It is ſaid, that in time of peſtilence it is a ſingular preſervative, if it bee eaten with meats. Certes, it is excellent to keepe them for being drunke, who have taken their liquor liberally; or at leaſtwiſe to make them ſober againe. And yet the perfume or ſmoke thereof, when it burneth, chaſeth ſerpents away, and eſpecially the Aſpides; or els dooth intoxicat their heads, and make them ſo drunke that a man ſhall find them lying benummed and aſtonied, as if they were dead. The ſame ſerpents moreover will not come neare unto thoſe that bee annointed all over with this hearbe Aros and oile of baies: hereupon it is thought, that it is a good preſervative againſt their ſtings, if it be drunke in groſſe red wine. They ſay moreover, that cheeſes will keepe paſſing well, if they be wrapped within the leaves of Aron.

To come now to Dragons, called in Latine Dracunculus, whereof I have ſpoken before: The
C onely time to dig it out of the ground, is when Barley beginneth to ripen, and within the two firſt quarters of the Moone, all the while that ſhe doth encreaſe in light. Let one but have the root of this hearbe about him in any part of the bodie (it makes no matter how or where hee carie it) hee ſhall be ſure that ſerpents will flie from him. And therfore it is ſaid, that the greater kind of them is ſingular to be given in drinke unto thoſe who are ſtung alreadie by them; as alſo that it ſtoppeth the immoderat courſe of womens fleurs, in caſe it touched no yron inſtrument when it was gathered. The juice thereof is paſſing good for paine in the eares.

As for that Dragon which the Greekes name Dracontium, it hath ben ſhewed and deſcribed unto me in three formes: The one leaved like unto the Beets, growing with an upright main ſtem with a flower of a purple colour: this Dragon is like unto Aron. Others brought unto mee a ſe-
D cond kind with a long root (as it were) marked foorth and devided into certaine joints; it putteth out three ſmall ſtems and no more: and they declared moreover and gave direction to ſeeth the leaves therof in vinegre againſt the ſting of ſerpents. There was a third ſort ſhewed unto me, bearing a leafe bigger than that of the Corneil tree, with a root reſembling thoſe of the canes or reeds: and (as they avouched) parted into as many joints and knots juſt, as it was yeares old, and ſo many leaves likewiſe it had, neither more nor leſſe. Thoſe that preſented it unto me, uſed to give the ſame in wine or water againſt ſerpents.

There is an hearbe alſo named Aris, growing in the ſame Ægypt: like unto Aron aboveſaid, ſave that it is leſſe, hath ſmaller leaves, and not ſo big a root, and yet the ſame is full as great as a good round and large olive. Of theſe, there bee two kinds: the one which is white, riſeth up with
E two ſtalks: the other putteth forth but one ſingle ſtem. Both of them have vertue to cure running ſkals and ulcers; to heale burnes alſo and fiſtulous ſores, if a collyrie or tent be made thereof and put into the ſore: the leaves boiled in water, and afterwards ſtamped and incorporat with oile roſat doe ſtay the ſpreading of corroſive and eating ulcers. But mark one wonderfull property that this plant hath: touch the nature or ſhap of any female beaſt therewith, ſhe will never lin gadding untill ſhe die with one miſcheefe or other.

Touching Millefoile or Yarrow, which the Greekes call Myriophyllon, and we in Latine Millefolium: it is an hearbe growing up with a tender and feeble ſtalke, like in ſome ſort unto Fenell, and charged with many leaves, whereupon it tooke the name: it groweth in moores and fennie grounds: uſed to very good purpoſe and with ſingular ſucceſſe, in curing of wounds. Over & be-
F ſides, it is given to drinke with vinegre for the difficultie of urine and the ſtoppage of the bladder, for thoſe that take wind thicke and ſhort, and ſuch as are inwardly bruiſed by falling headlong from on high; the ſame is moſt effectuall to take away the toothach.

In Tuſcane they have another hearb ſo called, growing in medows, which putteth forth on either ſide of the ſtalke or ſtem, a number of pretie leaves as ſmall in manner as hairs. The ſame alſo

is

is a moſt excellent wound-hearbe. And it is avouched by the people of that country, That if an Ox chaunce to have his ſtrings or ſinewes cut quite atwo with the plough ſhare, this hearbe will conglutinat and ſouder them againe, if it be made into a ſalve with ſwines greaſe. G

Concerning baſtard Navew, called in Greeke Pſeudo Bunion, it hath the leaves of Navew gentle, and braunch eth to the height of a hand breadth or ſpan. The beſt of this kind groweth in the Iſle Candie, where they uſe to drinke five or ſixe branches therof for the wringing torments of the bellie, for the ſtrangurie, the paine of the ſides, midriffe, and precordiall parts.

Myrrhis, which ſome call Smyrrhiza, others Myrrha, is paſſing like unto Hemlocke, in ſtalke leaves, and flower; onely it is ſmaller and ſlenderer, and hath no ill grace and unpleaſant taſt to be eaten with meats. Taken in wine, it haſteneth the monthly courſe of womens fleurs if they bee too ſlow, and helpeth them in labour to ſpeedie deliverance. It is ſaid moreover, That in time of a plague it is holeſome to drinke it for feare of infection. A ſupping or broth made of it, helpeth thoſe who are in a Phthyſicke or conſumption. This good propertie it hath beſides, to ſtirre up a quicke appetite to meat. It doth extinguiſh and kill the venome inflicted by the ſting or pricke of the venomous ſpiders Phalangia. The juice drawne out of this hearbe after it hath lien infuſed or ſoaked three daies together in water, healeth any ſore breaking out either in face or head. H

Finally, Onobrychis carieth leaves reſembling Lentils, but that they are ſomewhat longer: it beareth alſo a red flower: but reſteth upon a ſmall and ſlender root. It groweth about ſprings and fountaines. Being dried and reduced into a flower or pouder, it maketh an end of the ſtrangurie, ſo it be drunke in a cup of white wine well ſtrewed and ſpiced therwith. It ſtoppeth a lask. To conclude, the juice thereof cauſeth them to ſweat freely who are annointed all over with it.

I

Chap. XVII.

The medicinable vertues of Coriaceſia, Callicia, and Menais, with three and twentie other hearbes, which ſome hold to be Magicall. Moreover, of Conſidia, and Aproxis, beſides ſome other which are revived and in requeſt againe, having been long time out of uſe.

TO diſcharge and acquit my ſelfe of the promiſe which I made of ſtraunge and wonderfull hearbes, I cannot chuſe but in this place write a little of thoſe which the Magicians make ſuch reckoning of. For can there bee any more admirable than they? And in verie truth, *Democritus* and *Pythagoras*, following the tracts of the ſaid wiſe men and Magicians, were the K firſt Philoſophers, who in this part of the world ſet thoſe hearbes on foot, and brought them into a name.

And to begin with Coriaceſia and Callicia. *Pythagoras* affirmeth, That theſe two hearbes will cauſe water to gather into anyce. I find no mention at all in any other authors of theſe hearbs, neither doth he report more properties of them.

The ſame author writeth of an hearbe called Menais, knowne alſo by the name of Corinthas, the juice whereof (by his ſaying) if it be ſodden in water, preſently cureth the ſting of ſerpents, if the place be fomented with the ſaid decoction. Hee affirmeth moreover, that if the ſaid juice or liquor be poured upon the graſſe, whoſoever fortuneth to goe thereupon, and touch it with the L ſole of the foot, or otherwiſe chaunce to be but daſhed or ſprinckled therewith, ſhall die thereupon remedileſſe, and no way there is to eſcape the miſcheefe. A monſtrous thing to report that this juice ſhould be ſo ranke a venome as it is, unleſſe it be uſed againſt poyſon.

The ſelfeſame *Pythagoras* ſpeaketh yet of another hearbe which he calleth Aproxis: the root whereof is of this nature, to catch fire a farre off; like for all the world to Naphtha, concerning which, I have written ſomwhat alreadie in my diſcourſe as touching the wonders of Nature. And he reporteth moreover, That if a man or woman happen to be ſick of any diſeaſe, at what time as this Aproxis is in the flower, although he or ſhee bee throughly cured of it, yet ſhall they have a grudging or minding thereof as often as it falleth to flower againe yeare by yeare. And of this opinion he is beſides, That Frumentie corne, Hemlocke, and Violets, are of the ſame nature and M propertie. I am not ignorant, That this booke of his wherein theſe ſtrange reports are recorded, ſome have aſcribed unto *Cleomporus*, a renowmed Phyſician: but the currant fame or ſpeech holdeth ſtill ſo conſtantly, time out of mind, that we muſt needs beleeve *Pythagras* to be the author of the ſaid booke. True it is indeed, that the name of *Pythagoras* might give authoritie and credit

A dit to other mens bookes attributed unto him, if haply any other had laboured and travelled in compiling some worke, which himselfe judged worthie of such a man as he was: but that *Cleomporus* should so doe, who had set forth other bookes in his owne name, who would ever beleeve? No man doubteth verely, but that the booke entituled *Chirocineta, was of *Democritus* his making: and yet therein be found more monstrous things by a hundred fold, than those which *Pythagoras* hath delivered in that worke of his. And to say a truth, setting *Pythagoras* aside, there was not a Philosopher so much addicted to the schoole and profession of these Magicians, than was *Democritus*.

*As one would say, such a book as should be continually occupied, and never laid out of hand.

In the first place he telleth us of an hearbe called Aglaophotis, Worthie to bee admired and wondered of men, by reason of that most beautifull colour which it had: and for that it grew
B among the quarries of marble in Arabia, confining upon the coasts of the realm of Persia, therfore it was also named Marmaritis. And he affirmeth, that the Sages or Wise men of Persia called Magi, used this hearbe when they were minded to conjure and raise up spirits.

He writeth moreover, That in a countrey of India inhabited by the Tardistiles, there is another hearbe named Achæmenis, growing without leafe, and in colour resembling Amber: of the root of which hearbe there be certaine Trochiskes made: whereof they cause malefactors and suspected persons to drinke some quantitie with wine, in the day time, to the end they should confesse the truth: for in the night following they shal be so haunted with spirits and tormented with sundrie fansies and horrible visions, that they shall be driven perforce to tell all, and acknowledge the fact for which they are troubled and brought in question. The same writer calleth this plant
C *Hippophobas, because Mares of all other creatures are most fearefull and warie of it.

* or Hippophobas.

Furthermore, he reporteth, That thirtie Schœnes from the river Choaspes in Persia, there groweth an hearbe named Theombrotion: which for the manifold and sundrie colours that it hath, resembleth the painted taile of a Peacocke, and it casteth withall a most sweet and odoriferous sent. This hearbe (saith he) the Kings of Persia use in their meats and drinkes: and this opinion they have of it, That it preserveth their bodies from all infirmities and diseases, yea and keepeth their head so staied and setled, that they shall never bee troubled in mind and out of their right wits: In such sort, that for the powerfull majestie of this plant, it is also called Semnion.

He proceedeth moreover to another, knowne by the name Adamantis, growing only in Armenia and Cappadocia: which if it bee brought neare unto Lions, they will lie all along upon
D their backs, and yawne with their mouths as wide as ever they can. The reason of the name is this, because it cannot possibly be beaten into pouder.

He goeth on still and beareth us in hand, that in the realme Ariana, there is found the hearbe Arianis, of the colour of fire. The inhabitants of that countrey use to gather it when the Sunne is in the signe Leo: and they affirme, that if it doe but touch any wood besmeared and rubbed over with oile, it will set the same a burning on a light fire.

What should I write of the plant Therionarca, which whensoever it beginneth to come up and rise out of the ground, all the wild beasts will lie benummed and (as it were) dead: neither can they be raised or recovered againe, untill they be sprinckled with the urine of Hyæna.

The hearb Æthiopis, by his report groweth in Meroë, for which cause it is called also Meroïs:
E In leafe it resembleth Lectuce: and being drunke in mead or honied water, there is not such a remedie againe for the dropsie.

Over and besides, he speaketh of the plant Ophiusa, found in a countrey of the same Æthyopia, named Elephantine: Of a leaden hue it is, and hideous to see to: whosoever drinke thereof, shall be so frighted with the terrors and menaces of serpents represented unto their eyes, that for very feare they shall lay violent hands on themselves: and therefore church robbers are enforced to drinke it. Howbeit, if a man take after it a draught of Date wine, he shall not be troubled with any such fearefull visions and illusions.

Moreover, there is found (saith *Democritus*) the hearbe Thalassegle about the river Indus, and thereupon is knowne by another name Potamantis: which if men or women take in drink, tran-
F sporteth their sences so far out of the way, that they shall imagin they see strange sights.

As for Theangelis, which by his saying groweth upon mount Libanon in Syria, and upon Dicte, a mountaine in Candie; also about Babylon and Susis in Persia; if the wise Philosophers (whome they tearme Magi) drinke of that hearbe, they shall incontinently have the spirit of prophesie, and foretell things to come.

There

There is beſides in the region called Bactriana and about the river Boryſthenes, another G
ſtrange plant named Gelotophyllis, which (by his report) if one doe drinke with Myrrhe and wine, it will cauſe many fantaſticall apparitions: and the partie ſhall thereupon fall into a fit of laughter without ceaſing and intermiſſion, and never give over, unleſſe it bee with a draught of Date wine, wherein were tempered the kernils of Pine nuts together with pepper and honey.

Touching the hearbe of good fellowſhip Syſſitieteris, found in Perſis, it tooke that name becauſe it maketh them exceeding merie who are met together at a feaſt. They call the ſame hearb likewiſe Protomedia, for that it is ſo highly eſteemed among kings and princes. And another name it hath beſides, towit, *Acaſignete, becauſe it commeth up alone and no other hearbs near unto it: yea, and one more yet, namely, Dionyſonymphas, becauſe wine and it ſort ſo well together, and make as it were a good mariage. H

*As one would ſay, without brother or ſiſter.

The ſame *Democritus* talketh alſo of Helianthe: an hearbe leaved like to the Myrtle, growing in the countrey Themiſcyra, and the mountaines of Cilicia, coaſting along the ſea. And he giveth out, that if it be boiled with Lions greaſe, and then together with Saffron and Date wine reduced into an ointment, the foreſaid Magi and the Perſian kings therewith annoint themſelves, to ſeeme thereby more pleaſant and amiable to the people: which is the reaſon, that the ſame hearbe is called Heliocallis.

Over and beſides, he maketh mention of Hermeſias, (for ſo he tearmeth not an hearbe but a certaine compoſition) ſingular for the getting of children, which ſhall proove faire and of good nature beſides. Made it is of Pine-nut kernils, ſtamped and incorporat with Honey, Myrrhe, Saffron, and Date wine, with an addition afterwards of the hearbe Theombrotium and milke: and I
this confection he preſcribeth to be drunk by the man a little before the very act of generation: but by women upon their conception, yea, and after their deliverie all the while they be nourees and give ſucke: and in ſo doing they may be aſſured, that thoſe children of theirs, thus gotten, bred, and reared, ſhall be paſſing faire and well favoured, of an excellent ſpirit and courage: and in one word, every way good. Of all theſe hearbes before ſpecified, he ſetteth downe alſo the very names which the ſaid Magi call them by. Thus much for the Magicke hearbes found in *Democritus* his booke.

Apollodorus, one of his diſciples and followers, comes in with his two hearbes to the other beforenamed. The one he calleth Æſchynomæne, becauſe it draweth in the leaves, if one come neare unto it with the hand: the other Crocis, which if the venomous ſpiders Phalangia doe K
but touch, they will die upon it.

Cratevas writeth of an hearbe called Oenotheris, which being put in wine, if any ſavage beaſts be ſprinckled therewith, they will become tame, gentle and tractable.

*Appion, called alſo *Pleiſtonices*

A famous* Grammarian of late daies made mention of another hearb Anacampſeros, of this vertue, That if a man touched a woman therewith, were ſhee departed from him in all the hatred that might bee, ſhee would come again and love him entirely. The ſame benefit alſo ſhould the woman find thereby, in winning the love of a man. This may ſuffice for the preſent to have written of theſe wonderfull Magicke hearbs, conſidering that I meane to diſcourſe more at large of them and their ſuperſtition in a more convenient place. L

Chap. xviii.

Of Eriphia, Lanaria, and Stratiotis, with the medicines which they yeeld.

MAny writers have made mention of Eriphia. This hearb hath within the ſtraw of the ſtem a certain flie like a beetle, running up and downe, and by that means making a noiſe like unto a young kid, whereupon it tooke the foreſaid name. There is not a better thing in the world for the voice, than this hearb, as folke ſay.

The hearbe Lanaria, given to ewes in a morning when they are faſting, cauſeth their udders to ſtrout with milke. Lactoris likewiſe is a common hearb and as well knowne, by reaſon that it is ſo full of milke, which cauſeth vomit, if one taſt thereof never ſo little. Some there be who ſay, M
That the hearb which they call * Militaris, is all one with this Lactoris: others would have it to be verie like unto it; and that it ſhould have that name, becauſe there is not a wound made with ſword or edged weapon, but it healeth it within five daies, in caſe it be applied thereto with oile.

*The ſoldiors hearbe.

Semblably, the Greeke writers make great reckoning of their* Stratiotes: but this hearbe

*All one with *Millitaris.*

groweth

A groweth onely in Ægypt, and namely in floten grounds where the river Nilus hath overflowed: and like it is unto Sengreene or Houſleeke, but that it hath bigger leaves. It is exceeding refrigerative; and a great healer of greene wounds, beeing made into a liniment with vinegre: moreover it cureth S. *Anthonies* fire, and all apoſtumes which are broken and run matter: if it be taken in drinke with the male-frankincenſe, it is wonderfull to ſee how effectuall it is to repreſſe the flux of bloud from the reins.

Chap. xix.

Of the hearbs that grow upon the head and chapter of Images and Statues. Of hearbs found in rivers. Of the hearb called Lingua. Of hearbs growing through a ſieve, and upon dunghills. B *Of Rhodora and Impia, two hearbs. Of Pectен Veneris. Of Nodia. Of Clavers, or Gooſe-graſſe, called otherwiſe Philanthropos. Of the little Bur named Canaria: of Tordile. Of the ordinarie Coich-graſſe, Stitchwort, or Dent-de-chien. Of the hearbe Dactylus, and Fenigrecke: with their medicinable vertues.*

IT is commonly ſaid, That the hearbs or weeds growing upon the head of any ſtatue or image, preſently allay the head-ach (if they bee gathered in the lappet or any part of ſome garment) ſo as the Patient weare them tied about the necke, by red linnen thread, or enfolded within ſome red linnen clout. Any hearbe whatſoever gathered out of ſome riveret, brooke, or great river, before the ſun-riſing, ſo as no man ſee the partie during the time of the gathering, provided C alwaies that it be tied to the left arme of the ſicke Patient, and he or ſhee not know what it is, driveth away any tertian ague, if it be true which is commonly ſaid. There is an herb growing about fountains called Lingua, *i.* a Tongue: the root thereof being burnt into aſhes, and incorporat with the greaſe of a ſwine (but you muſt looke, ſay they, that the ſwine be blacke and barraine) cauſeth haire to come againe, in caſe the place which is bare and bald, be annointed therewith in the ſun. Caſt a ſieve or riddle foorth into any beaten path or high-way, the graſſe or weeds comming up underneath, and growing through the ſame, if they be gathered and bound about the necke or any other part of women with child, doe haſten their travaile and deliverie. Thoſe hearbs which be found growing upon muckhills about countrey ferms, are paſſing good and effectuall for the ſquinancie, if they be drunke with water. The graſſe or hearbe neare unto which D a dog lifts up his leg and piſſeth, if it bee plucked out of the ground without touching knife or yron inſtrument, cureth any diſlocation or bone out of joynt, moſt ſpeedily.

Touching the tree (in manner of an Opiet or Poplar) called Rumbotinus, I have deſcribed it in my treatiſe of Hortyards and Tree-plots. Neare to one of theſe (and namely, when there is no vine coupled or married to it) there groweth a certain herb, which in Fraunce they call Rhodora: it riſeth up with a ſtem pointed and knotted in manner of a figtree rod or wand; beareth leaves reſembling nettles, ſomwhat whitiſh in the mids, but the ſame in proceſſe of time become red all over; and a floure of ſilver colour: This hearbe ſtamped and mixed with old hogs greaſe, maketh a ſoveraigne liniment for all ſwellings, inflammations, and impoſtumes gathering to an head; provided alwaies that no edge toole come near to touch it, and that the partie who is dreſ- E ſed or annointed therewith turne the head to the right hand, and ſpit thrice upon the ground on that ſide. And the operation of this medicine will be the more effectuall, if three ſundrie men of three divers nations, ſtand on the right hand when they annoint the Patient.

Concerning the hearb Impia, which is of a hoarie colour and white withall, it reſembleth in ſhew the Roſemarie, riſing up with a maine ſtem, leafed and headed in manner of a Cole-ſtocke: from which principall bodie, there grow foorth other ſmall braunches, every one bearing little tufts or heads riſing and mounting above the mother ſtocke (whereupon they called it in Latine Impia, for that the children over-topped their parents;) yet there be others who have thought it rather ſo called, becauſe there is no beaſt will touch or taſt it. This hearb, if it be ground between two ſtones, waxeth as hot as fire, and yeeldeth a juice which is excellent for the ſquinancie, if the F ſame be tempered with milke and wine. But this is ſtraunge that is reported moreover, namely, That whoſoever hath once taſted of this hearbe, ſhall never be troubled with that diſeaſe; and therefore they uſe to give it in waſh and ſwill, to ſwine: but looke which of them refuſe to drinke of this medicine, ſhall die of the ſaid ſquinancie. Some are of opinion, That in birds neſts there is ſome of this hearbe commonly ſet and twiſted among other ſticks, whereby it commeth to

passe that the yong birds never be choked, gobble they their meat as greedily as they will. G

As touching the hearbe called Veneris Pecten, which tooke that name of the resemblance that the long cods thereof hath to combe or rake teeth: the root, if it be stamped with mallows, and so reduced into a cataplasme, draweth forth all spills, thorns, or whatsoever sticketh within the flesh. The hearb * Exedum, is singular to cure the lethargie, and all drowsinesse.

* It seemeth by name and effect, to be of some sharpe and fretting qualitie.

As for Nodia, it is an hearbe well knowne in curriours shops. They call it also Mularis, and other names besides they have for it: but tearme it how you will, it healeth corrosive ulcers: and I find, that it is of singulular operation against the poison of scorpions, if it be drunke in wine or oxymell, *i.* vinegre and water mingled togither. There is a certaine rough and prickie hearbe, which the Greeks call by a pretie name * Philanthropos, for that it sticketh to folks cloaths as they passe by. A chaplet or guirland made of this hearb, and set upon the head, easeth the paine thereof. As for the little Bur called Lappa Canaria, if it be stamped with Plantaine and Millefoile, and togither with them concorporat in wine, it healeth all cancerous sores, so it be applied unto the place and remooved once in three daies. The same hearbe digged forth of the ground without any spade or yron instrument, cureth swine, if it bee put into the trough where they be served with draffe & swill, or given them in milk and wine. Some add moreover, that this charme must be said in the digging, *Hæc est herba Argemon, quam Minerva reperit suibus remedium, qui de illa gustaverint: id est*, This is the hearb Argemon, which *Minerva* invented as a remedie for diseased swine, as many as tasted thereof. H

*Goose-grasse or Clivers.

As for Tordile, some have said that it is the seed of Seseli, or Siler of Candie: others take it to be an hearbe by it selfe, which also they called Syreon: for mine owne part, I find by my reading, nothing of it, but that it delighteth to grow upon mountains; and that being burnt, it is good to be drunke for to provoke womens monethly terms, and to expectorat the superfluous fleame out of the brest: for which purposes (they say) that the root is more effectuall in operation: also that the juice thereof taken in drinke to the weight of three oboli, is singular for the reines: finally, that the root is one of the ingredients which go to the making of emollitive plasters or cataplasms. I

The Quich-grasse, otherwise named Dent-de-chien, or Dogs-grasse, is the commonest hearb that groweth: it runneth and creepeth within the earth by many knots or joints in the root, from which, as also from the braunches and top-sprigs trailing above-ground, it putteth foorth new roots and spreadeth into many braunches. In all other parts of the world, the leaves of this grasse grow slender and sharpe pointed toward the end: onely upon the mount Pernassus (whereupon it is called Gramen Pernassi) it brauncheth thicker than in other places, and resembleth in some sort Ivie, bearing a white floure, and the same odoriferous. There is not a grasse in the field wherein horses take more delight to feed, than this, whether it be greene as it groweth, or drie and made into hay, especially if it be given them somewhat sprinkled with water. Moreover, it is said, That the inhabitants about the foresaid mount Pernassus, do draw a juice out of this grasse, used much to encrease plentie of milke; for sweet and pleasant it is: but in other parts of the world, in stead thereof, they use the decoction of the common grasse, for to conglutinat wounds: [and yet the very hearbe it selfe in substance will doe as much, if it bee but stamped and so applied: and besides, a good defensative it is to keepe any place that is cut or hurt, from inflammation.] To the said decoction, some put wine and honey: others adde a third part in proportion of Frankincense, Pepper, and Myrrhe: and then set all over the fire againe, and boile it a second time in a pan of brasse: which composition they use as a medicine for the tooth-ach and watering eyes, occasioned by the flux of humors thither. The root sodden in wine, appeaseth the wrings & torments of the guts; openeth the conduits of the urine, and giveth it passage; besides, it healeth the ulcers of the bladder: yea, it breaketh the stone. But the seed is more diureticall, and with greater force driveth downe urine than the root. And yet it stoppeth a laske, and staieth vomite. A peculiar vertue it hath against the sting of dragons or serpents. Moreover, some there be, who give direction in the cure of the Kings evill, and other flat impostumes called Pani, to take nine knots or joints of a root of this grasse: and if they cannot find one root with so many joints, to take two or three roots, untill they have the foresaid number: which done, to enwrap or fold the same in unwashed or greasie wooll which is blacke, [with this charge by the way, that the partie who gathered the said roots bee fasting] and then to goe unto the house of the patient that is to be cured, waiting a time when he is from home: and be readie at his returne to receive him with K L M

these

A theſe words three times pronounced, *Iejunus jejuno medicamentum do*, [*i.* I being yet faſting, give thee a medicine alſo whiles thou art faſting:] and with that, to bind the foreſaid knots and roots unto the parts affected, and ſo continue this courſe for three daies togither. Furthermore, that kind of graſſe which hath ſeven joynts in the root, neither more nor leſſe, is ſingular for the head-ach, and worketh great effects if the Patient carrieth it tied faſt about him. Some Phyſicians doe preſcribe for the intollerable paine of the bladder, to take the decoction of this graſſe boiled in wine unto the conſumption of one halfe, and give it to drinke unto the Patient, preſently upon the comming out of the baine or hot-houſe.

Touching the graſſe, which by reaſon of the pricks that it beareth is named Aculeatum, there be three ſorts of it: The firſt is that which ordinarily hath five ſuch pricks in the head or top
B thereof, and thereupon they call it Penta-Dactylon, *i.* the five-finger graſſe: theſe pricks when they be wound togither, they uſe to put up into the noſthrils and draw them downe againe, for to make the noſe bleed. The ſecond is like to * Sengreen or Houſleeke: ſingular good it is for the whitflaws, and excreſcences or riſings up of the fleſh about the naile roots, if it bee incorporat into a liniment with hogs greaſe: and this graſſe they call Dactylos, becauſe it is a medicine for the fingers. * The third kind named likewiſe Dactylos, but ſmaller than the other, groweth upon old decaied walls or tyle-houſes: this is of a cauſticke and burning nature, good to repreſſe the canker in running and corroſive ulcers. Generally, a chaplet made of the hearbe Gramen or Dogs-graſſe, and worne upon the head, ſtancheth bleeding at the noſe. The Gramen that groweth along the high waies in the countrey about Babylon, is ſaid to kill camels that graſe upon it.

C Fenigreeke commeth not behind the other hearbs before ſpecified, in credit and account for the vertues which it hath: the Greeks call it Telus and Carphos: ſome name it Buceras and Ægoceras, for that the * ſeed reſembleth little horns: wee in Latine tearme it Silicia or Siliqua. The manner of ſowing it, I have declared in due place ſufficiently. The vertues thereof, is to drie, mollifie, and reſolve: the juice drawne out of it after the decoction, is right ſoveraigne for many infirmities and diſeaſes incident to women, and namely in the naturall parts, whether the matrice have a ſchirre in it and be hard or ſwolne, or whether the necke thereof be drawne too ſtreight and narrow: for which purpoſes, it is to bee uſed by way of fomentation, inſeſſion, or bath; alſo by infuſion or injection with the metrenchyte. Very proper it is to extenuat the ſcurfe or ſcalls like dandruffe, appearing in the viſage: being ſodden and applied togither with ſal-nitre,
D it helpeth the diſeaſe of the ſplene. The like effect it hath with vinegre: and being boiled therin, it is good for the liver. For ſuch women as have painefull travaile in child-birth, and bee hardly delivered, *Diocles* appointed Fenigreeke ſeed to the quantitie of one acetable, to bee given in nine cyaths of wine cuit for three draughts: with this direction, that the woman firſt ſhould take one third part of this drinke, and then goe to a hot bath, and whiles ſhe were ſweating therein, to drinke one halfe of that which was left: and preſently after ſhe is out of the baine, ſup off the reſt. And he ſaith there is not the like medicine to be found in this caſe, when all others will take no effect. The flower or meale of Fenigreeke ſeed boiled in mead or honied water, together with Barly or Lineſeed is ſingular for the paine of the matrice, either applied to the ſhare in maner of a cataplaſme, or put up into the naturall parts as a peſſarie, according as the abovenamed *Diocles* ſaith:
E who was wont likewiſe to cure the leprie or S. *Magnus* evill; to cleanſe and mundifie the skin, of freckles & pimples, with a liniment made with the foreſaid flower incorporat with the like quantitie of brimſtone: with this charge, to prepare the skin by rubbing it with ſalnitre, before the ſaid ointment were uſed, and then to annoint it oftentimes in a day. *Theodorus* uſed to mix with Fenigreeke a fourth part of the ſeed of garden Creſſes well cleanſed, and to temper them in the ſtrongeſt vinegre that he could come by, which he tooke to be an excellent medicine for the leproſie. *Damion* ordained to make a drink with halfe an acetable of Fenigreek ſeed put into nine cyaths of cuit or ſheere water, and ſo to give it for provoking of womens fleurs. And no man doubteth but the decoction of Fenigreeke is moſt holſome for the matrice & the exulceration of the guts: like as the ſeed it ſelfe is excellent for the joints and precordiall parts about the heart. But in caſe it be
F boiled with Mallows, it is good for the matrice & the guts, ſo there be put unto the ſaid decoction ſome honied wine, and then given in drinke: for even the very vapor or fume of the ſaid decoction doth much good to thoſe parts. Alſo the decoction of Fenigreeke ſeed rectifieth the ſtinking ranke ſmell of the arme-pits, if they be waſhed therewith. The flower made of Fenigreeke ſeed, incorporat with nitre and wine, quickly cleanſeth the head of ſcurfe, ſcalls, and dandruffe. But

* Some take this to be *Paronychia*, *Dioſc.* or rather a kind of Atizoon, Mouſe-taile, or Prick-madam.

* This is thought to be great Stone-crop, wild Purcellane, or Wall-pepper.

Or rather the cods wherein the ſeed is encloſed.

boiled in hydromell (that is to say, honyed water) and brought into a liniment with hogs greaſe, G
it cureth the ſwelling and inflammation of the members ſerving to generation: likewiſe it is ſingular for the broad and flat apoſtems called Pani, the ſwelling kernels and inflammations behind the eares, the gout as well of the feet as of the hands and other joynts; alſo the putrefaction of the fleſh readie to depart from the bone: and being incorporat in vinegre, it helpeth diſlocations: being boiled in vinegre and honey onely, it ſerveth as a good liniment for the ſplene: and tempered with wine, it cleanſeth or mundifieth cancerous ſores; but put thereto hony, it healeth them throughly in a ſhort time. The ſaid floure of Senigreeke ſeed taken in a broth or ſupping, is an approoved remedie for an ulcer within the breaſt, and any inveterat cough; but it asketh long ſeething, even untill it have loſt the bitterneſſe: and afterwards hony is put therto, and then it is a ſingular grewell for the infirmities beforeſaid. Thus you ſee what may bee ſaid of thoſe H
Hearbs which are in compariſon but of meane account: it remaineth now to diſcourſe of thoſe which are of more account and eſtimation than the reſt.

THE XXV. BOOKE OF I
THE HISTORIE OF NATVRE,
WRITTEN BY C. PLINIVS SECVNDVS.

CHAP. I. K

The nature and properties of Hearbs growing wild and of their owne accord.

WHen I conſider the excellencie of ſuch hearbs, whereof now I am to treat, and which the earth ſeemeth to have brought forth onely for the uſe of Phyſicke, I cannot chuſe but grow withall into a woonderfull admiration of the great induſtrie and carefull diligence of our auncients before-time, who have made experiments of all things, and left nothing untried: neither reſerved they afterwards this hidden knowledge to themſelves nor concealed ought, but were willing to communicat the ſame unto poſteritie for their good and benefit: but wee contrariwiſe in theſe daies, are deſirous to keepe ſecret and to ſuppreſſe the labours of other men; yea and to defraud the world of thoſe L
commodities which have been purchaſed by the ſweat of other mens browes: for verely we ſee, it is an ordinarie courſe, that ſuch as have attained to ſome knowledge, envie that little skill unto their neighbours: and to keepe all forſooth to themſelves and teach none their cunning, they thinke the onely way to win a great name and opinion of ſome deepe and profound learning. And ſo far be wee off from deviſing new inventions, and imparting the ſame to the generall profit of mankind, that for this long time men of great wit and high conceit have ſtudied and practiſed to compaſſe this one point, That the good deeds of their aunceſtors might with themſelves die and be buried for ever. But certes, we ſee and know, that the ſeverall inventions of ſome one thing or other, have cauſed divers men in old time to be canonized as gods: in ſuch ſort, as their memoriall hath been eternized by the names even of hearbs which they found out: ſo M
thankefull was the age enſuing, as to recognize and acknowledge a benefit from them received, and by this means (in ſome meaſure) to make recompenſe. This care and induſtrie of theirs, if it had been emploied in domeſticall plants neare home, which either for pleaſure and delight, or elſe for the kitchin and table, are ſet and ſowed, could not have been ſo rare and wonderfull: but they

A they spared not to climbe up the top of high mountains, and to rocks unaccessible; to travaile through blind and unpeopled deserts, to search every veine and corner of the earth, and all to find and know the vertues of hearbs: of what operation the root was, for what diseases the leaves were to be used; yea and to make holesome medicines for mans health of those simples, which the very fourefooted beasts of the field never fed upon, nor once touched.

Chap. II.

The Latin authors who have written of Hearbs, and their natures. At what time the knowledge of Simples began to be practised and professed in Rome. The first Greeke writers who travailed in this Argument. The invention of Hearbs. The auncient Physicke, and the manner of curing diseases in old time. What is the cause that Simples are not now so much used for remedies of diseases as they have been. Finally, of the sweet Brier or Eglantine, and the hearbe Dragons, with their medicinable vertues.

B

WEe Romans have been more slacke and negligent in this behalfe than was beseeming us, considering how otherwise, there was not a nation in the world more apprehensive of all vertues and things profitable unto this life, than ours. For to say a truth, *M. Cato* (that famous clerke and great professor, so well seene in all good Arts and Sciences) was the first (and for a long time the onely author) who wrate of Simples: and howsoever hee handled that argument but briefly and summarily, yet he omitted not the leech-craft belonging also to kine
C and oxen. Long after him, *C. Valgius* (a noble gentleman of Rome, and a man of approoved literature) compiled a treatise of Simples, which he left unperfit; howbeit he dedicated the book to *Augustus Cæsar* the Emperor; as may appeare by a preface by him begun, wherein (after a religious and ceremonious maner of supplication) he seemeth to beseech the said Prince, That it might please his majestie especially, to cure all the maladies of mankind. And before his time, the onely man among our Latines (as far as ever I could find) who wrote of Simples, was *Pompeius Lenæus*, the vassall or freed man of *Pompey* the Great. And this was the first time that the knowledge of this kind of learning was set on foot and professed at Rome. For *Mithridates* (the
D most mightie and puissant king in that age, whose fortune notwithstanding was to be vanquished and subdued by *Pompey*) was well knowne unto the world not only by the fame that went of him, but also by good proofe and evident arguments, to have been of all other before his time, a prince most addicted to the publicke benefit of all mankind: for the only man he was who devised to drinke poison every day (having taken his preservatives before;) to the end that by the ordinarie use and continuall custome thereof, it might be familiar unto his nature, and harmlesse. The first he was also who devised sundrie kinds of antidots or counterpoisons, whereof * one re- *i. Mithridatium.
teineth his name to this day: he it was also and none but he (as men thinke) who first mingled in the said antidots and preservatives, the bloud of Ducks bred in his own realm of Pontus, for that they fed and lived there, of poisons and venomous hearbs. Vnto him, that famous and renowmed professor in Physicke *Asclepiades*, dedicated his books now extant: for this Physician being sollicited to repaire unto him from Rome, sent the rules of Physicke digested into order and set
E downe in writing, in stead of comming himselfe. And *Mithridates* it was (as it is for certaine knowne) who alone of all men that ever were, could speake two and twentie languages perfitly; so as for the space of six and fiftie yeers (for so long he reigned) of all those nations which were under his dominion, there never came one man to his court, but he communed and parled with him in his owne tongue without any truchman or interpretor for the matter. This noble prince, (among many other singular gifts that hee had, testifying his magnanimitie and incomparable wit) addicted himselfe particularly to the earnest studie of Physicke: and because he would be exquisit and singular therin, he had intelligencers from all parts of his dominions (and those tooke
F up no small part of the whole world) who upon their knowledge, exhibited unto him the particular natures and properties of every simple: By which means, hee had a cabinet full of an infinit number of receits and secrets set down togither with their operations and effects, which he kept in his said closet, & left behind him with other rich treasure of his. But *Pompey* the Great, having under his hands the whole spoile of this mightie prince, and meeting in that faccage with those notes above said, gave commandement unto his vassall or enfranchised servant the abovenamed *Lenæus* (an excellent linguist and most learned Grammarian) to translate the same into the

Latine tongue: for which act of *Pompey*, the whole world was no leſſe beholden unto him, than G
the common-wealth of Rome for the foreſaid victorie. Over and beſides theſe, what Greeke au-
thors have travailed in Phyſicke, I have declared heretofore in convenient place. And among
the reſt, *Evax* a King of the Arabians, wrate a booke as touching the vertues and operations of
Simples, which he ſent unto the Emperour *Nero*. *Cratevas* likewiſe, *Dionyſius* alſo, and *Me-*
trodorus, wrote of the ſame Argument after a moſt pleaſant and plauſible manner (I muſt needs
ſay;) yet ſo, as a man could picke nothing almoſt out of all their writings, but an infinit difficul-
tie of the thing: for they painted every hearbe in their colours, and under the pourtraicts they
couched and ſubſcribed their ſeverall natures and effects. But what certeintie could there be ther-
in? pictures (you know) are deceitfull; alſo, in repreſenting ſuch a number of colours, and eſpe-
cially expreſſing the lively hew of Hearbs according to their nature as they grow, no marveile if H
they that limned and drew them out, did faile and degenerat from the firſt pattern and originall.
Beſides, they came far ſhort of the marke, ſetting out hearbs as they did at one onely ſeaſon (to
wit, either in their floure, or in ſeed time) for they chaunge and alter their forme and ſhape eve-
rie quarter of the yeere. Hereof it came, that all the reſt laboured to deſcribe their forms and co-
lours, by words onely. Some without any deſcription at all of their figure or colour, contented
themſelves (for the moſt part) with ſetting downe their bare names, and thought it ſufficient to
demonſtrat and ſhew their power and vertue afterwards, to whoſoever were deſirous to ſeeke af-
ter the ſame: and verely, the knowledge therof is no hard matter to attaine unto. For mine owne
part, it hath been my good hap to ſee growing in the plant, all theſe medicinable hearbs (except-
ing very few) by the means of *Antonius Caſtor* (a right learned and moſt renowmed Phyſician I
in our daies) who had a pretie garden of his owne well ſtored with ſimples of ſundrie ſorts, which
he maintained and cheriſhed for his owne pleaſure and his friends, who uſed to come and ſee
his plot, as indeed it was worthie the ſight. This Phyſician was then above an hundred yeeres old,
and in all his life never found what ſickneſſe meant; neither for all this age of his, was his wit de-
caied or memorie any whit empaired, but continued as freſh ſtill as if he had been a yong man.
But to proceed forward with our diſcourſe: Certes we ſhall not find a thing againe which our an-
ceſtors ſo much admired and were more raviſhed withall, than the knowledge of Simples. True it
is (I confeſſe) that the invention of the Ephemerides (to fore-know thereby not onely the day
and night, with the eclypſes of Sun and Moone, but alſo the verie hours) is auncient: howbeit,
the moſt part of the common people have been and are of this opinion (received by tradition K
from their forefathers) That all the ſame is done by enchantments, & that by the means of ſome
ſorceries and hearbs togither, both ſun and moon may be charmed, and enforced both to looſe
and recover their light: To do which feat, women are thought to be more skilfull and meet than
men. And to ſay a truth, what a number of fabulous miracles are reported to have been wrought
by *Medea* queene of Colchis, and other women; and eſpecially by *Circe* our famous witch here in
Italy, who for her ſingular skill that way, was canonized a goddeſſe. And from hence it came (I
ſuppoſe) that *Æſchylus* a moſt auncient Poët, made report of * Italy to be furniſhed with hearbs
of mightie operation: and many others have ſpoken much of the mountaine Circeios bearing
her name, wherein the ſaid ladie ſometime dwelt & kept her reſidence. And for a notable proofe
of her ſingular skill in that kind, the ſame knowledge in ſome meaſure continueth unto this day L
in the Marſians (a nation deſcended from a ſonne of hers) who are well knowne to have a natu-
rall power by themſelves to tame and conquer all ſerpents, and not to be ſubject to any daunger
from them. As for *Homer* verely (the father and prince of all learning and learned men, and the
beſt author that we have of antiquities) howſoever otherwiſe he was addicted to extoll and mag-
nifie dame *Circe*, yet he attributeth unto Ægypt the glorie & name for good hearbs; yea though
in his time there was not that Baſe Ægypt watered as now it is, with Nilus: for afterwards it grew,
by the mud left there by the inundation of the ſaid river. Truly this Poët maketh mention of ma-
ny ſingular hearbs in Ægypt, which the * Kings wife of that countrey gave unto that ladie of his,
Helena, of whom he writeth ſo much; and namely, the noble Nepenthes, which had this ſingular
vertue and operation, To worke oblivion of melancholy and heavineſſe, yea and to procure eaſe- M
ment and remiſſion of all ſorrows: which (I ſay) the queene beſtowed upon *Helena* to this end,
That ſhee ſhould communicat and impart it to the whole world for to be drunke in thoſe ca-
ſes aboveſaid. But the firſt man knowne by all records to have written any thing exactly and cu-
rioufly of ſimples, was *Orpheus*. As for *Muſæus*, and *Heſiodus* after him, in what admiration they
held

* Τυρσηνων γης φαρμακοτοιον ἐθνος.

* *Polydamna*, Θωνος παρακοιτις, *i.* the wife of king *Thon*. *Homer. Odyſſ. δ.* & *Diodorus Siculus Antiquit. lib. 2.*

held and how highly they eſteemed the hearbe Polion above the reſt, I have ſhewed alreadie. Certes, *Orpheus* and *Heſiodus* both have highly commended unto us perfumes and ſuffumigations. And *Homer* likewiſe writeth expreſſely of certaine hearbs by name, of ſingular vertue, which I will put downe in their due places. After him came *Pythagoras*, a famous Philoſopher, who was the firſt that compoſed a booke, and made a Treatiſe purpoſely of ſundrie hearbes, with their divers effects; aſcribing wholly the invention and originall of them to the immortall gods, and namely, to *Apollo* & *Æſculapius*. *Democritus* compiled a volume of the ſame argument. But both he and *Pythagoras* had travelled before all over Perſis, Arabia, Æthyopia, and Ægypt, and there conferred with the Sages and learned Philoſophers of that countrey, called Magi. In ſumme, ſo farre were men in old time raviſhed with the admiration of hearbes and their vertues, that they baſhed not to avouch even incredible things of them. *Xanthus* an auncient Chronicler, writeth in the firſt booke of his Hiſtories, of a Dragon, which finding one of her little ſerpents killed, raiſed it to life againe by a certaine hearbe, which hee nameth Balis: and with the ſaid hearbe, a man alſo named *Thylo*, whom the dragon had ſlaine, was revived and reſtored to health againe. Alſo King *Iuba* doth report, That there was a man in Arabia, who being once dead, became alive againe by the vertue of a certaine hearbe. *Democritus* ſaid, and *Theophraſtus* gave credit to his words, That there is an hearbe, with which a kind of foule (wherof I have made mention before) is able to make the wedge or ſtopple to flie out of the hole of her neaſt, into which the ſheepeheards had driven it faſt, in caſe ſhe bring the ſame hearb and but once touch the foreſaid wedge therewith. Theſe be ſtrange reports and incredible, howbeit they draw men into a wonderfull opinion of the thing, and fill their heads with a deepe conceit, forcing them to confeſſe, That there is ſome great matter in hearbs, and much true indeed which is reported ſo wonderfully of them. And from hence it is, that moſt are of this opinion and hold certainly, That there is nothing impoſſible, but may be performed by the power of hearbs, if a man could reach unto their vertues: Mary few there bee who have attained to that felicitie: and the operation of moſt ſimples is unknowne. In the number of theſe, *Herophilus* the renowmed Phyſician may be reckoned: who was of this mind, and gave it out in his ordinarie ſpeech, That ſome hearbs there were, which were effectuall and did much good, if a man or woman chaunced but to tread upon them under their feet. And verely, this hath beene knowne and found true by experience, that ſome diſeaſes would be more exaſperat and angrie, yea, and wounds grow to fretting and inflammation, if folke went but over certaine hearbes in the way as they paſſed on foot. Loe what the Phyſick in old time was! and how the ſame lay wholly couched in the Greeke language, and not elſewhere to bee found. But what might be the reaſon, that there were no more ſimples knowne? Surely it proceeds from this, That for the moſt part they bee ruſticall peaſants, and altogether unlettered, who have the experience and triall of hearbs, as thoſe who alone live and converſe among them where they grow. Another thing there is, Men are careleſſe and negligent, and love not to take any paines in ſeeking for them. Againe, every place ſwarmeth ſo with Leeches and Phyſicians, and men are ſo readie to run unto them for to receive ſome compound medicine at their hands, that little or no regard there is made of Hearbs and good Simples. Furthermore, many of them which have been found out and knowne, have no name at all: as for example, that hearbe which I ſpake of in my Treatile concerning the cure and remedies of corne growing upon the lands: and which wee all know, if it bee enterred or buried in the foure corners of the field, will skare away all the foules of the aire, that they ſhall not ſettle upon the corne, nor once come into the ground. But the moſt diſhoneſt and ſhamefull cauſe why ſo few ſimples in compariſon be knowne, is the naughtie nature & peeviſh diſpoſition of thoſe perſons who will not teach others their skill, as if themſelves ſhould looſe for ever that which they imparted unto their neighbour. Over and beſides, there is no certaine way or meanes to direct us to the invention and knowledge of hearbes and their vertues: for if we looke unto theſe hearbes which are found alreadie, we are for ſome of them beholden to meere chaunce and fortune: and for others (to ſay a truth) to the imediat revelation from God. For proofe hereof, mark but this one inſtance which I will relate unto you. For many a yeare untill now of late daies, the biting of a mad dog was counted incurable: and looke who were ſo bitten, they fell into a certaine *dread and feare of water: neither could they abide to drinke, or to heare talke thereof, and then were they thought to be in a deſperat caſe: It fortuned of late, that a ſouldiour, one of the guard about the *Pretorium was bitten with a mad dog, and his mother ſaw a viſion in her ſleepe, giving (as it were) direction unto her for to ſend the root unto her ſonne for

*Ὑδροφοβία.

*or the prince;

to

to drinke, of an Eglantine or wild Rose (called Cymorrhodon) which the day before she had espied growing in an Hortyard, where she tooke pleasure to behold it. This occurrent fell out in *Lacetania, the neareſt part unto us of Spaine. Now, as God would, when the ſouldiour beforeſaid upon his hurt received by the dog, was readie to fall into that ſymptome of Hydrophobie, and began to feare water; there came a letter from his mother, advertiſing him to obey the will of God, and to doe according to that which was revealed unto her by the viſion. Whereupon hee dranke the root of the ſaid ſweet brier, or Eglantine, and not only recovered himſelfe beyond all mens expectation: but alſo afterwards as many as in that caſe tooke the like receit, found the ſame remedie. Before this time, the writers in Phyſicke knew of no medicinable vertue in the Eglantine, but onely of the ſponge or little ball, growing amid the prickie braunches therof, which being burnt and reduced into aſhes, and incorporat with honey into a liniment, maketh haire to come again where it was ſhed by any infirmitie. But ſeeing I am fallen into the mention of Spain, it commeth to my mind, what I my ſelfe knew and ſaw in the ſame province, within the lands and domaines belonging to an hoſt of mine; namely, a certaine plant or hearbe there lately found, called * Dracunculus, which carried a maine ſtem or ſtalke an inch or thumbe thicke, beſet with ſpots of ſundrie colours, reſembling thoſe of vipers and ſerpents: and I was told, that it was a ſingular remedie againſt the ſting or biting of any ſerpents. This Dracunculus differeth from another hearbe of that name, whereof I ſpake in the book going next before, for this hath a diſtinct forme from that, and beſides, another ſtrange & wonderfull propertie, namely, to ſhew two foot or thereabout above ground in the Spring time, when ſerpents firſt doe caſt their ſloughes or skins: and the ſame is no more ſeene, at the very time that ſerpents alſo retire into their holes and take up their Winter harbour within the ground. Let this plant bee gone once into the earth and hidden, you ſhall not ſee a ſnake, adder, or any other ſerpent ſtirring abroad. Wherby we may ſee what a kind and tender mother Nature is unto us (if there were nothing els to teſtifie her love) in giving us warning beforehand of daunger: and pointing unto us the very time when we are to be afraid and to take heed of ſerpents.

*or Luſitania.

*our common Dragons.

Chap. 111.

Of a certaine venomous fountaine in Germanie: of the hearbe Britannica. What diſeaſes they be that put men to the greateſt paine.

SO unfortunate is our condition, and ſo much expoſed are wee to manifold calamities, that the earth is not peſtered with wicked beaſts onely for to doe us harme: but alſo there bee otherwhiles venomous waters and peſtilent tracts to worke us more woe and miſerie. In that voiage or expedition which prince *Cæſar Germanicus* made into Germanie, after hee had paſſed over the river Rhene, and had given order to advance forward with his armie, he encamped upon the ſeacoaſts along Friſeland, where there was to be found but one ſpring of freſh water; and the ſame ſo daungerous, that whoſoever dranke of that water, within two years loſt all their teeth, and were beſides ſo feeble and looſe jointed in their knees, that unneth they were able to ſtand. Theſe diſeaſes the Phyſicians tearmed *Stomacace and Sceletyrbe: as one would ſay, the maladie of the mouth, and palſie of the legs. Yet they found a remedie for theſe infirmities, and that was a certain hearbe called *Brittannica, which is very medicinable, not only for the accidents of the ſinewes and mouth, but alſo for the Squinancie and ſtinging of ſerpents. It hath leaves growing ſomewhat long, and thoſe enclining to a browniſh or darke greene colour, and the root is blacke; out of which, as alſo from the leaves, there is a juice drawne and preſſed. The flowers by a peculiar name be called Vibones: which being gathered before any thunder bee heard, and ſo eaten, doe aſſure and ſecure the parties altogether from that infirmitie. The Friſians, neare unto whom we lay encamped, ſhewed our men this hearb. But I muſe much & wonder what ſhould be the reaſon of that name, unleſſe the Friſians bordring upon the narrow race of the Ocean, which lieth onely between them and England (called in thoſe daies Britanica) ſhould therupon for the neighbourhead & propinquitie of that Iſland, give it the name Britannica. For certain it is, that it took not that name becauſe there grew ſuch plentie thereof in that country of England, that it ſhould be tranſported over from thence to our camp; for as yet that Iſland was not wholly ſubject unto us & reduced under the Roman ſignorie. For an ordinary thing it was in old time practiſed by thoſe that found out any hearbs, to affect the adoption (as it were) of the ſame, and to call them by

*Some thinke this diſeaſe to bee the Schorbuck or Scorbute, which raigneth yet at this day.

*Which is taken to be our Cochlearia, i. Spoonwort, commonly called Scorbutgraſſe or Scorvy-graſſe.

A by their owne names, wherein verely men tooke no ſmall contentment: according as I purpoſe to ſhew by the example of certaine kings and princes, whoſe names live and continue yet in their hearbes; ſo honourable a thing it was thought in thoſe daies to find and it were but an hearb that might doe good unto man. Whereas in this age wherein we now live, I doubt not but there bee ſome who will mocke us for the pains taken in that behalfe, and thinke us very ſimple for writing
2 thus as wee doe of Simples; ſo baſe and contemptible in the eyes of our fine fooles and delicat
2 perſons, are even the beſt things that ſerve for the benefit & common utilitie of mankind. Howbeit, for all that, good reaſon it is and meet that the authours and inventours of them, as many as can be found, ſhould be named and praiſed with the beſt; yea, and that the operations and effects of ſuch hearbs ſhould bee digeſted and reduced into ſome method, according as they be appro-
B priat to every kind of diſeaſe. In the meditation whereof, I cannot chuſe nor containe my ſelfe, but deplore and pitie the poore eſtate and miſerable caſe of man: who over and beſides the manifold accidents and caſualties which may befall unto him, is otherwiſe ſubject to many thouſands of maladies, which we have much adoe to deviſe names for, every houre of the day happening as they doe, and whereof no man can account himſelfe free, but every one is for his part to feare them. Of theſe diſeaſes ſo infinite as they bee in number, to determine preciſely and diſtinctly which bee moſt greevous, might ſeeme meere follie, conſidering that every one who is ſicke for the preſent, imagineth his owne ſickneſſe to bee worſt and fulleſt of anguiſh. And yet our forefathers have given their judgement in this caſe, and by experience have found, That the moſt extreame paine and torment that a man can endure by any diſeaſe, is the Strangurie,
C 3 2 or piſſing dropmeale, occaſioned by the ſtone or gravell in the bladder. The next is the greefe 2 and anguiſh of the Stomacke: and the third, Head-ach: for ſetting theſe three maladies aſide, 3
3 lightly there are no paines that can kill a man or woman ſo ſoone. And here by the way, I cannot for mine owne part but marvell much at the Greekes, who have publiſhed in their writings venomous and peſtilent hearbes, as well as thoſe that bee good and holeſome. And yet there is an apparence and ſhew of reaſon, why ſome poyſons ſhould bee knowne: for otherwhiles it falleth out that men live in ſuch extremitie, as better it were to die, than ſo to lie in anguiſh and torment, inſomuch, as death is the beſt port and harbor of refuge that they have. Certes, *Marcus Varro* reporteth of one *Servius Clodius* a gentleman or knight of Rome, who for the extreame paine of the gout, was forced to annoint his legs and feet all over with a narcoticke or
D cold poyſon, whereby he ſo mortified the ſpirits of the muskles and ſinewes, that hee became paralyticke in that part: and ever after unto his dying day, was rid as well of all ſence, as of the pain of the gout. But ſay, that in theſe caſes it might bee tollerable to ſet downe in their bookes ſome poyſons: what reaſon, nay what leave had thoſe Greekes to ſhew the meanes how the brains and underſtanding of men ſhould bee intoxicat and troubled? What colour and pretence had they to ſet downe medicines and receits to cauſe women to ſlip the untimely fruit of their womb, and a thouſand ſuch like caſts & deviſes that may be practiſed by hearbs of their penning? For mine owne part, I am not for them that would ſend the conception out of the body unnaturally before the due time: they ſhall learne no ſuch receits of me. Neither will I teach any how to temper and ſpice an amatorious cup, to draw either man or woman into love, it is no part of my profeſſion:
E For well I remember, that *Lucullus* a moſt brave Generall, and a captain of great execution, loſt his life by ſuch a love-potion. Much leſſe then ſhall yee have me to write of Magicke, witchcraft, charmes, enchantments and ſorceries, unleſſe it be to give warning that folke ſhould not meddle with them, or to diſprove thoſe courſes for their vanities, and principally to give an Item, how little truſt and aſſurance there is to bee had in ſuch tromperie. It ſufficeth mee and contenteth my mind, yea and I thinke that I have done well for mankind, in recording thoſe hearbes which bee good and holeſome, found out by men of wit and learning for the benefit of poſteritie.

Chap. iiii.

Of Moly, and Dodecatheos: of Pæonie, otherwiſe called Pentorobus or Glycyſide. Of Panaces, Aſclepium, Heraclium, and Chironium. Of Panaces Centarium or Pharnaceum. Of Heraclium, Siderium. Of Henbane, called Hyoſcyamus, Apollinaris, or Altercangenus.

F

Homer is of opinion, That the principall and ſoveraigne hearb of all others, is Moly; ſo called (as hee thinketh) by the gods themſelves. The invention or finding of this hearbe hee

*aſcri-

*Odyſſ.10.

*aſcribeth unto *Mercurie*: and ſheweth that it is ſingular againſt the mightieſt witchcraft and G
enchauntments that bee. Some ſay, that this hearbe Moly, even according to *Homers* deſcription, with a round and blacke bulbous root to the bigneſſe of an onion, and with a leafe or blade like that of Squilla, groweth at this day about the river or lake Peneus and upon the mountaine Cylleum in Arcadia: alſo that it is hard to be digged out of the ground. The Grecian Simplifts deſcribe this Moly with a yellow flower, whereas *Homer* hath written, that it is white. I met with one Phyſician, a skilfull Herbariſt, who affirmed unto me, That this Moly grew in Italie alſo: and in very truth he brought and ſhewed me a plant which came out of Campain, about the digging up whereof among hard and ſtonie rocks, he had been certaine daies: but get hee could not the entire root whole and ſound, but was forced to breake it off, and yet the root which he ſhewed me was thirtie foot long. H

Next unto Moly in account and reputation, is that plant which they call Dodecatheos, for that it doth repreſent and comprehend the majeſtie of all the cheefe gods. They ſay if it be drunk in water, it is a ſoveraigne medicine for all maladies. Seven leaves it hath, reſembling very much thoſe of Lectuce, and the ſame ſpring from a yellow root.

*Pæon, who was equall in time to *Hercules*, and lived 10g before the Troian war.

As touching Pæonie, it is one of the firſt hearbes that were ever known and brought to light, as may appeare by the author or inventor thereof, whoſe name it beareth ſtill. Some call it Pentorobos: others Glycyſide. [Where by the way I am to advertiſe the reader of the difficultie in the knowledge of hearbes by their names, conſidering that the ſame hearbe hath in ſundrie places diverſe appellations.] But to proceed forward with our Pæonie: it groweth among bleake and ſhadie mountaines, riſing up with a ſtem betweene the leaves, *foure fingers high, and bearing in I
the top foure or five heads, faſhioned ſomewhat like to Filberds, within which there is plentie of ſeed both red and blacke. This hearb is good againſt the fantaſticall illuſions of the *Fauni which appeare in ſleepe. It is ſaid, that this hearbe muſt be gathered in the night ſeaſon: for if the Rainbird, Woodpeck or Hickway, called Picus Martius, ſhould chaunce to ſpie it gathered, he would flie in the face, and be readie to pecke out the eyes of him or her that had it.

* *Seſquipedali. Dioſco, i.* a foot and halfe.

*I ſuppoſe he meaneth the diſeaſes called *Ephialtes* or *Incubus, i.* the night-Mare.

The hearbe *Pananos, promiſeth by the very name a remedie of all diſeaſes. A number there be of hearbes ſo called: and all aſcribed to ſome god or other for the invention of them: for one of them hath the addition of *Aſclepion*, for that *Æſculapius* had a daughter named alſo *Panacea*. As touching the concrete juice named Opopanox, it is drawne from the root of this plant (beeing of the Ferula or Fennell kind, ſuch as I have heretofore ſhewed) by way of inciſion, the which K
root hath a thicke rind, and of a ſaltiſh ſavour. When the root is pulled out of the ground, there is a religious ceremonie obſerved to fill up the hole againe with all ſorts of corne, as it were in ſatisfaction to the earth for the violence offered in tearing it up. As for the ſaid juice Opopanax, where and how it ſhould be made, and which is the beſt kind thereof and not ſophiſticat, I have declared alreadie in my Treatiſe of forraine and ſtraunge plants. That which is brought out of Macedonie, they call Bucolicum, becauſe the Neat-heards of the countrey marke when the liquour breaketh foorth and runneth out of it ſelfe, and ſo receive and gather it from the plant: This will not laſt, but of all the reſt ſooneſt looſeth the force. Moreover, in all ſorts of it, that is rejected principally, which is blacke and ſoft; for theſe be markes to know that it is corrupted and ſophiſticat with wax. A ſecond kind there is of Panaces, which they call Heraclium: the invention L
of the vertues and properties whereof is attributed unto *Hercules*. Some there be who call it Origanum Heracleaticum the wild, becauſe it is like unto Origan, wherof I have heretofore written: but the root of this Panaces is good for nothing. A third kind of Panaces took the name of *Chiron* the Centaur, who was the firſt that gave intelligence of the hearbe and the vertues thereof. The leafe is like unto the Docke, but that it is bigger and more hairie: the flower is of a golden yellow colour: the root but ſmall: it loveth to grow in rich, fat, and battle grounds. The flower of this Panaces is moſt effectuall in Phyſicke; in which regard there is more uſe and profit thereof than of all the former kinds. A fourth Panaces ther is beſides, found out alſo by the ſame *Chiron*, whereupon it hath the denomination of Centaureum: called alſo it is Pharnaceum: The occaſion of this two-fold name is this: becauſe there is ſome controverſie in the firſt invention ther- M
of; whiles ſome attribute it to the Centaur *Chiron*, others to K. *Pharnaces*. This Panaces is uſually ſet and planted, bearing leaves indented in the edges like a ſaw, and thoſe longer than any of the reſt. The root is odoriferous, which they uſe to drie in the ſhaddow, and therewith to aromatize their wine, for a pleaſant and delectable taſt it giveth unto it. Hereof they have made two ſpeciall kinds:

* *πᾶν* and *ἄκος, i.* [a medicine for] all greefs; as one would ſay, All-heale.

A kinds: the one with a *thicker leafe: the other with a thinner and ſmaller. *Craſſioris, παχυφύλλου, Ex Theophraſt.

As for Heracleon Siderion, a plant it is alſo fathered upon *Hercules*. It riſeth up with a ſlender ſtalke to the height of four fingers, bearing a red flower, and leaves in manner of the Coriander. Found it is growing neare to pooles and rivers: and for a wound-hearb there is not the like, eſpecially if the bodie be hurt by ſword, or any edged weapon made of yron and ſteele.

There is a wild Vine, named Ampelos Chironia, for that *Chiron* was the firſt author thereof. Of this plant I have written in my diſcourſe of Vines [under the name of Vitis Nigra] like as alſo of another *hearbe, which hath the goddeſſe *Minerva* for the inventreſſe. *Matricaria or Parthenium, i. Mother wort.

Moreover, unto *Hercules* is aſcribed Henbane, which the Latines call Apollinaris; the Arabians Altercum or Altercangenon; but the Greekes Hyoſcyamus. Many kinds there be of it. The
B one beareth blacke ſeed, flowers ſtanding much upon purple; and this hearbe is full of prickes. And in very truth, ſuch is the Henbane that groweth in Galatia. The common Henbane is whiter and brauncheth more than the other: taller alſo than the Poppie. The third kind bringeth forth ſeed like unto the graine of Irio. All the ſort of theſe alreadie named, trouble the braine, and put men beſides their right wits: beſides that, they breed dizzineſſe of the head. As touching the fourth, it carieth leaves ſoft, full of down, fuller and fatter than the reſt: the ſeed alſo is white: & it groweth by the ſea ſide: Phyſicians are not afraid to uſe this in their compoſitions, no more than that which hath red ſeed. Howbeit, otherwhiles this white kind eſpecially, if it bee not throughly ripe, prooveth to bee reddiſh, and then it is rejected by the Phyſicians. For otherwiſe none of them all would bee gathered, but when they bee fully drie. Henbane is of the nature of
C *wine, and therefore offenſive to the underſtanding, and troubleth the head. Howbeit, good uſe there is both of the ſeed it ſelfe as it is in ſubſtance, and alſo of the oile or juice drawne out of it apart. And yet the ſtalkes, leaves, and roots, are emploied in ſome purpoſes. For mine owne part, I hold it to be a daungerous medicine, and not to be uſed but with great heed and diſcretion. For this is certainely knowne, That if one take in drinke more than foure leaves thereof, it will put him beſide himſelfe. Notwithſtanding the Phyſicians in old time were of opinion, That if it were drunke in wine, it would drive away an ague. An oile (I ſay) is made of the ſeed thereof, which if it be but dropped into the eares, is ynough to trouble the braine. But ſtrange it is of this oile, That if it be taken in drinke, it ſerveth for a countrepoyſon. See how induſtrious men have ben to prove experiments, and made no end of trying all things, inſomuch as they have found meanes and
D forced very poyſons to be remedies. *Vini. Some read Veneni, i. poyſon.

Chap. v.

Of Mercurie, called Linozoſtis, Parthenium, Hermupoa, or rather, Mercurialis: of Achilleum, Panaces, Heracleum, Sideritis and Milleſoile: of Scoparegia, Hemionium, Teucrium, and Splenium: of Melampodium or Ellebore, and how many kinds there be of it: of the blacke or white Ellebore, and their medicinable vertues: how Ellebore is to be given, how to be taken, unto whom and when it is not to be given: and how it killeth Mice and Rats.

E THe hearbe Mercurie, called by the Greekes Linozoſtis and Parthenion, was thought to be firſt found out by *Mercurie*: whereupon many of the Greekes call it Hermu-poa: and wee all in Latine name it Mercurialis. Of it be two kinds, the male and the female: howbeit, the female Mercurie is of better operation than the other. It riſeth up with a ſtem a cubit high, which otherwhile brancheth in the top: the leaves bee like unto Baſill, but that they are narrower: full of knots or joints the ſtalke is; and thoſe have many hollow concavities like arme-pits. The ſeed hangeth downe from thoſe joints. In the female the ſame is white, looſe, and in great plentie: in the male it ſtandeth cloſe unto thoſe joints, but thinner: and the ſame is ſmall & as it were wreathed. The leaves of the male Mercurie be of a darke and blacker greene: whereas in the female they be more white. The root is altogether ſuperfluous, and very little. Both the one & the other
F delight to grow in plaines and champion fields well ordered and husbanded. It is wonderfull if it be true, that is reported of both theſe kinds, namely, That the male Mercurie, cauſeth women to beare boies: and the female, girles. For which purpoſe the woman muſt preſently after that ſhee is conceived, drinke the juice of which Mercurie ſhe will, in ſweet wine cuit, and eat the leaves either ſodden with oile and ſalt, or els greene and raw in a ſallad with vinegre. Some there bee who

boile

boile it in a new earthen veſſell never uſed before, together with the hearbe Heliotropium or Turnſol, and two or three cloves of Garlicke, untill it bee throughly ſodden. Which decoction they preſcribe to be given unto women, as alſo the hearbe it ſelfe to bee eaten the ſecond day of their monthly ſickneſſe, and ſo to continue for three daies together: and then upon the fourth day, after they have bathed, to companie with their husbands. *Hippocrates* giveth woonderfull praiſe unto Mercurie, as well the male as the female, for all thoſe accidents which follow women: But the manner of uſing it, which he preſcribed, there is no Phyſician hath skill of. He appointed to make paſſaries thereof with Hony, oile of Roſes, oile of Ireos or Lillies, and ſo to put them up into the ſecret parts: and in this manner he ſaith that the hearbe is excellent good for to provoke the monthly termes of women, and to fetch away the after birth. He affirmeth alſo, that a potion or fomentation therewith will doe as much. Moreover, by his ſaying, the juice of Mercurie infuſed into the eares, or applied by way of liniment with old wine, is ſingular for them when they run with ſtinking matter. He ordained likewiſe a cataplaſme of Mercurie to be laid unto the bellie, for to ſtay the violent flux of humours thither: for the ſtrangurie alſo and infirmities of the bladder. In which caſes, he gave the decoction thereof with Myrrhe and Frankincenſe. And verely for to looſen the bellie, although the patient were in a fever, there is a potion of Mercurie ſingular good, made in this wiſe: Take a good handfull of Mercurie, ſeeth the ſame in two ſextars of water, untill one halfe bee conſumed: let the partie drinke the ſame with ſalt and honey mixed therewith: But the ſaid decoction if it be made with an Hogs foot, with a Hen, Capon, or Cocke boiled withall, is the holeſomer. Some Phyſicians were of opinion, That for to purge the bodie, both Mercuries, as well the male as the female are to be given, either boiled alone by themſelves or elſe with Mallowes. They cleanſe the breaſt parts, and evacuat choller, but they hurt the ſtomacke. Touching all the other properties of Mercurie, I will write in place convenient. G H I

As *Chiron* the Centaure found out the medicinable vertues of certaine hearbs, ſo we are beholden to his ſcholler *Achilles* for one, which is ſingular to heale wounds, and of his name is called Achilleos. This is that wound-hearbe, wherewith (by report) he cured prince *Telephus*. Some have thought that he deviſed firſt the ruſt of braſſe or verdigreece, which is ſo excellent for ſalves and plaſtres: and therefore you ſhall ſee *Achilles* commonly painted ſcraping off the ruſt of his ſpeare head with his ſword into the wound of the ſaid *Telephus*. Others ſay, that he tooke both the ſaid ruſt or verdegreece, and alſo the hearbe Achilleos to worke his cure. Some would have this Achillea to be Panaces Heracleon; and others, Sideritis: we in Latin call it Millefolia. An hearb it is growing with a ſtalke or ſtem to the height of a cubit, ſpreading into many braunches, clad from the very root up to the top, with leaves ſmaller than thoſe of Fenell. Others confeſſe indeed that this hearbe is ſingular good for wounds: but the true Achilleos (ſay they) hath a blewiſh ſtalke a foot high and no more, bare and naked without any braunches at all, howbeit finely decked and garniſhed on every ſide with round leaves, ſtanding one by one in excellent order & making a faire ſight. There be againe who deſcribe it with a foureſquare ſtem, bearing heads in the top in manner of Horehound, and leaved like unto an Oke. And this they ſay is of that efficacie, that it will conglutinat and unite ſinewes againe, if they were cut quite aſunder. Moreover, you ſhall have ſome who take for Achillea that kind of Sideritis growing upon mud wals, which if it be bruſed or ſtamped, yeeldeth a ſtinking ſent. Moreover, there is another going under the name Achilleos, like to this laſt deſcribed, but that the leaves bee whiter and fattier, the little ſtalkes or ſprigs more tender, and it groweth in vineyards. Laſt of all, there is one more called Achilleos, which riſeth up to the height of two cubits, bearing prettie fine and ſlender braunches and thoſe three ſquare, leaves reſembling Fearne hanging by a long ſtele, and the ſeed is much like unto that of the Beet. In one word, they bee all of them moſt excellent for healing wounds. And as for that eſpecially, which hath the largeſt leaves, our countreymen in Latine have called it Scopa Regia. And the ſame is holden to be good for to heale the Squinancie or Gargle in ſwine. K L

In the ſame age wherein *Achilles* lived, prince *Teucer* alſo gave the firſt name and credit to one ſpeciall hearbe, called after him Teucrion, which ſome nominat Hemionium. This plant putteth forth little ſtalkes in manner of ruſhes or bents, and ſpreadeth low: the leaves bee ſmall: it loveth to grow in rough and untoiled places: a hard and unpleaſant ſavour it hath in taſt: it never floureth, and ſeed it hath none. Soveraigne it is for the ſwollen and hard ſpleene: The knowledge of which propertie came by this occaſion, as it is credibly and conſtantly reported. It fortuned upon a time when the inwards of a beaſt killed for ſacrifice, were caſt upon the ground where this hearb M

grew,

A grew, it tooke hold of the ſplene or milt, and clave faſt unto it, ſo as in the end it was ſeen to have conſumed and waſted it cleane: hereupon ſome there be that call it Splenion, *i.* Splene-woort. And there goeth a common ſpeach of it, That if ſwine doe eat the root of this hearbe, they ſhall be found without a milt when they are opened. Some there be, who take for Teucrium and by that name do call, another hearb full of branches in manner of hyſſope, leafed like unto beans; and they give order, that it ſhould be gathered whiles it is the floure; as if they made no doubt but that it would floure. The beſt kind of this hearbe they hold to be that which commeth from the mountains of Cilicia and Piſidia.

Who hath not heard of *Melampus* that famous divinour and prophet? he it was of whome one of the Ellebores tooke the name, and was called Melampodion: and yet ſome there be who
B attribute the finding of that hearbe unto a ſhepheard or heardman of that name, who obſerving well that his ſhee goats feeding thereupon, fell a ſcouring, gave their milke unto the daughters of K. *Prætus*, whereby they were cured of their furious melancholie, and brought againe to their right wits. This hearbe then being of ſo excellent operation, it ſhall not be amiſſe to diſcourſe at once of all the kinds of Ellebore, whereof this maketh one. And to begin withall, two principall ſorts there be of it; namely, the white and the blacke: which diſtinction of colour, moſt writers would have to be meant and underſtood of the roots onely, and no part els: others there be, who would have the root of the blacke Ellebore to be faſhioned like unto thoſe of the Plane tree, but that they be ſmaller and of a more darke and duskiſh greene, divided alſo into more jags and cuts; but thoſe of the white Ellebore, to reſemble the young Beet new appearing above the
C ground, ſave onely that they be of a more blackiſh colour, and along the backpart of their concavitie enclining to red. Both the one and the other bringeth forth a ſtalk in faſhion like the Ferula or Fenell-geant, a ſpan or good hand-breadth high, and the ſame conſiſteth of certain tunicles or skins folded one within another in manner of bulbous plants, riſing from the like root; and the ſaid root is full of ſtrings or fringes, as is the head of an onion. The blacke Ellebore is a very poiſon to horſes, kine, oxen, and ſwine, for it killeth them; and therfore naturally theſe beaſts beware how they eat of it, whereas confidently they feed upon the white. The right ſeaſon of gathering the Ellebores, is in harveſt time. Great ſtore thereof groweth upon the hill Oeta, but the beſt is that which is found in one only place therof neare about * Pyra. The black Ellebore com-
D meth up every where; but the beſt is in Helicon, a mountaine much renowmed and praiſed for other hearbs beſide it, wherewith it is well furniſhed. As touching the white, that of the mount Oeta is counted the principall: in a ſecond degree, is the white Ellebore of Pontus: in the third place is to be raunged, that which commeth from Elæa, which (they ſay) groweth among vines; in the fourth and laſt place, for goodneſſe, is that of the mount Pernaſſus, which is ſophiſticated with the Ellebore of Ætolia neare by. The blacke Ellebore is called Melampodium, wherewith folke uſe to hallow their houſes for to drive away ill ſpirits, by ſtrewing or perfuming the ſame, and uſing a ſolemne praier withall: it ſerveth alſo to bleſſe their cattaile after the ſame order. But for theſe purpoſes they gather it very devoutly and with certaine ceremonies: for firſt and foremoſt, they make a round circle about it with a ſword or knife, before they goe in hand to take it foorth of the ground: then the partie who is to cut or dig it up, turneth his face into the Eaſt, with an
E humble prayer unto the gods, That they would vouchſafe to give him leave with their favour to doe the deed; and with that, hee marketh and obſerveth the flight of the Ægle; for lightly while they be cutting up of this root, ye ſhall ſee an Ægle ſoaring aloft in the aire: now in caſe the ſaid Ægle flie neare unto him or her that is cutting up Ellebore, it is a certain preſage and foretoken, that he or ſhe ſhall ſurely die before that yeare goe about. Much adoe alſo there is about the gathering of the white Ellebore; for unleſſe the partie do eat ſome garlicke before, and eftſoons in the gathering ſup off ſome wine, and withall make haſt to dig it up quickly, it will ſtuffe and offend the head. The blacke Ellebore ſome call Eutomon, others Polyrrhizon; it purgeth downward: the white, by vomit upward, and doth evacuat the offenſive humours which cauſe diſeaſes. In times paſt it was thought to be a daungerous purgative, and men were afraid to uſe it: but af-
F terwards it became familiar and common, inſomuch as many ſtudents tooke it ordinarily for to cleanſe the eyes of thoſe fumes which troubled their ſight, to the end that whiles they read or wrate, they might ſee the better and more clearely. It is well knowne, that *Carneades* the Philoſopher purpoſing to anſwer the books of *Zeno*, prepared his wits and quickened his ſpirits, by purging his head with this Ellebore. And *Druſus* our countreyman, one of the moſt famous and

* Where *Hercules* fried to death as it were, in a funerall fire, which the Greeks call *Pyra*.

renowmed Tribunes of the Commons that were ever knowne at Rome (a man who above all G
others woon the favour and applause of the comminaltie, howsoever the nobilitie charged him
to have been the cause of the Marsians warre) was perfitly cured of the falling sickness in the
Isle Anticyra, by this onely medicine: and indeed those Islanders have a way by themselves to
prepare their Ellebore with the mixture of Sesamoeides (as I have said before) whereby the ta-
king of it is most safe. Ellebore is called in Latine * Veratrum: the powder as well of the one as
the other snuffed up into the nosthrils, either alone by it selfe, or mixed with the powder of the
Fullers hearbe Radicula, wherewith they wash and scoure their woollen cloth, * provoketh snee-
zing; and yet both of them procure sleepe. Now for use in Physicke, there would be chosen the
smallest roots of Ellebor, such as be short also, and as it were curtailed, and not sharpe pointed
in the botome: and the best part is that which is toward the nether end; for the uppermost part H
of the root which is the thickest and bulbous like to an onion head, is good for dogs onely, and
given unto them for to make them scummer. In old time they used to chuse the Ellebore root by
the barke, and tooke that for the best which had the most fleshie or thickest rind, to the end that
they might take out the finer pith or marow within; which they used to lap and cover with moist
spunges, and when it began to swell, they divided or slived it longwise into small filaments with
the point of a needle or bodkin. These filaments or strings, they dried in the shade, and laid them
up to serve as need should require. But now adaies they cut the small shoots or slips braunching
from the root, such as are most charged with barke, and those the Physicians give unto their Pa-
tients. The best white Ellebore is that, which in tast is hot and biting at the tongues end, and in
the breaking seemeth to smoke or send dust from it: it is commonly said, that it will continue in I
force thirtie yeers. The blacke is good for the palsie, for those that be lunaticke and bestraught
in their wits, for such as be in a dropsie (so they be cleare of a fever,) for inveterat gouts as well of
feet and hands as other joynts: it purgeth downward by the belly, both choller and fleame: being
taken in water, it gently mollifieth and looseneth the bodie: and from foure oboli (which is a
small or meane dose) you may rise to a full dram, so you exceed not that weight. Some were wont
to mingle Scammonium therewith; but the safer way is to put salt onely thereto: beeing given
in any sweet liquor to some great quantitie, it is daungerous: and yet a fomentation therewith,
is good to rid away and dispatch the mistinesse that troubleth the eies: and therefore some use to
beat it into powder, and when it is reduced into a liniment or eyesalve, therwith to annoint them
for the said purpose. This propertie moreover it hath, to bring to maturation the swelling wens K
called the Kings evill, to mollifie any hard tumors, to mundifie also the foresaid wens and any bot-
ches or impostumes that be suppurat and broken. It cleanseth likewise the hollow ulcers called
fistuloes, provided alwaies that it be not taken out of the sore in two daies and two nights, but
the third day it ought to be remooved. Incorporat with the skales of brasse and red orpiment, it
taketh away werts. Made into a pultesse or cataplasme with barley meale and wine, it is singular
good for the dropsie, if it be applied unto the bellie: take a sliving or slip of the root and draw it
through the eare of sheepe or horse in manner of rowelling, and the morrow after take it foorth
againe at the same houre; this healeth the gid or wood-evill in sheepe, and cureth the glandres in
horses: incorporat with frankincense or wax, togither with pitch or oile of pitch, it it singular
good for the farcins or scab in any foure-footed beast. Touching white Ellebore, the best is that L
which most speedily provoketh sneezing: it is without comparison farre more terrible than the
blacke, especially if a man read what adoe and preparation there went unto it in the old time,
when they were to drinke it against shiverings and shakings, against the rising of the mother and
daunger of suffocation: in case also of immoderat and extraordinarie drowsinesse, of excessive
hicquets and yexing without intermission, and of continuall sneezing: moreover, when they
were troubled with weakenesse and feeblenesse of stomacke: in like manner in case of vomits,
when they came either too fast or over-slow, either too little or too much: for this was a rule ob-
served among them, To give with Ellebore some other drugs, for to cause it worke the sooner,
and to hasten vomit more speedily: also they used means to fetch away the very Ellebore againe
if it lay over-long in the bodie, either by other purgative medicines, or by clysters: oftentimes M
also by opening a veine or bloud-letting. And say that Ellebore taken in manner aforesaid,
wrought very well, yet they used to observe every vomit, the divers colours of humors that came
away, which many times were fearefull to behold: yea and when the Patient had done casting,
they considered also the ordure and excrements that passed away by the belly: they gave order
besides,

* *à verando, unde veratores & veraculi:* and because such prophets were counted mad & out of their wits, therefore it was so called, for that it cured such.

* *Sternutamentū facit, amboq; somnū:* I doubt whether this be true: I suppose it should be read according to the old copie [*Somnum discutitur*] *id est*, they discusse or shake off sleepe, used to that purpose in lethargies & such drowsie diseases.

A beſides, for * bathing either before or after the taking of Ellebore, as occaſion beſt required; yea and they tooke great heed and regard of the whole bodie beſides: and yet, did what they could, the terrible name and report that went of this medicine, paſſed all their care and circumſpection whatſoever: for it was an opinion generally held and received, That Ellebore doth eat away and conſume the fleſh ſeething in the pot, if it bee boiled therewith. But herein were the auncient Phyſicians much too blame and greatly in fault, in that they were over-timorous, and for feare of ſuch accidents enſuing upon this medicine, gave it in too ſmall a doſe: whereas indeed, the greater quantitie that one taketh of it, the more ſpeedily it worketh, and the ſooner paſſeth out of the bodie, when it hath once done the errand. *Themiſon* uſed to preſcribe two drams, and not above. The Phyſicians who followed after, allowed the doſe of foure drams;

B grounding upon a notable and famous apothegme or ſpeech of *Herophylus*, who was woont to ſay, That Ellebore was like unto a valiant and hardie captaine: For when (quoth he) it hath ſtirred all the humors within the bodie, it ſelfe iſſueth forth firſt and maketh way before them. Moreover, there is a ſtraunge and ſingular deviſe, To clip the root of Ellebore with ſmall ſizzers or ſheares into little peeces; then, to ſift them through a ſercer, that the barke or rind may remaine ſtill; and when it is cleanſed and purged from the pith or marow within, the ſame may fall thorow and paſſe away: which is paſſing good to ſtay vomits, in caſe the Ellebore doe worke too extreamely. Furthermore, if wee looke for good ſucceſſe in our cure by miniſtring of Ellebore, in any wiſe wee muſt take heed and be carefull, how we give it in cloſe weather, and upon a darke and clowdie day; for certeinly it putteth the Patient to a jumpe or great hazzard, and cauſeth

C moſt grievous and intollerable pains and torments. For that it ſhould be taken in ſummer rather than in winter, no man doubteth thereof. Over and beſides, the bodie ought to bee prepared a ſeven-night before; during which time, the Patient is to eat tart and ſharpe * meats and poignant ſauces; to abſtaine from wine altogither; and the fourth and third day before, to aſſay by little and little to vomit gently: laſt of all, to forbeare ſupper over-night, when hee is to take his Ellebore the morrow. As touching the manner of giving Ellebore: the white may be drunke in ſome ſweet wine; but the beſt and chiefeſt way of taking it, is in milke, grewell, or pottage. Of late dayes there is come up a pretie invention, To ſlit or cut radiſh roots, and within thoſe gaſhes to ſticke or entetlace peeces of white Ellebore; which done, to bind them cloſe up againe, that the ſtrength and vertue thereof may be incorporat in the foreſaid roots: and thus

D by the means of this kind temperature with the radiſh, to give it unto the Patient. Ordinarily this medicine of Ellebore continueth not above foure hours within the bodie, but it commeth up againe, and within ſeven it hath done working. And thus beeing uſed as is beforeſaid, it is a moſt ſoveraigne remedie for the falling ſickneſſe, the ſwimming or dizzineſſe of the head: it cureth melancholicke perſons troubled in mind; ſuch as be brainſicke, mad, lunaticke, phrantick, and furious: it is ſingular good for the Elephantie, the foule and daungerous morphew called Leuce, the filthie leproſie, and the generall convulſion whereby the bodie continueth ſtiffe and ſtarke, as if it were all one peece without any joynt. It helpeth thoſe that be troubled with trembling, ſhivering, and ſhaking of their limbs, with the gout, and the dropſie, and namely ſuch as be entring into a tympanie: ſingular it is for thoſe that have weake and feeble ſtomacks and

E can keepe nothing that they take; for ſuch as are given to ſpaſmes or cramps, lie * bedrid of the dead palſie or ſuch chronicke diſeaſes, encumbred with the ſciatica, haunted with the quartane ague, which will not be rid away by any other means; troubled with an old cough, vexed with ventoſities and griping wrings and torments which be periodicall, and uſe to come and goe at certaine ſet times: howbeit, Phyſicians forbid the giving of Ellebore to old folke and young children: *Item*, to ſuch as be of a fœminine and delicat bodie; as alſo to thoſe that be in mind effeminat: likewiſe to thoſe who are thin and ſlender, ſoft and tender: in which regards, we may not bee altogither ſo bold to give it unto women as unto men. In like manner, this is a medicine that would not bee miniſtred inwardly to fearefull, timorous, and faint-hearted perſons, neither to thoſe who have any ulcer in the precordiall region about the midriffe, ne yet unto

F ſuch as uſually bee given to ſwell in thoſe parts; and leaſt of all to thoſe that ſpit or reach up bloud; no more than to ſickely and craſie perſons who have ſome tedious and lingering maladie, as phthyſicke, &c. hanging upon them, and namely, if they be grieved and diſeaſed in their ſides or throat. Nevertheleſſe, applied without the bodie in manner of a liniment with ſalted hogs greaſe, it cureth the breaking forth of flegmaticke wheals and pimples; as alſo healeth old

* *Hippocrates* appointeth them to bath before, who purge not eaſily with Ellebore: & in caſe of convulſions occaſioned by the taking therof, he preſcribeth likewiſe the bain.

* As radiſh roots and oxymell.

* *Clinick*, ſome read *Cynics*, & then it ſignifieth thoſe that have their mouths drawn awrie to their ears: the diſeaſe is called *Cynicus ſpaſmus*.

ſores remaining after impoſtumes ſuppurat and broken: mixed with parched or fried barley-groats, it is a very rats-bane, and killeth both them & mice. The Gauls or Frenchmen when they ride a hunting into the chaſe, uſe to dip their arrow heads in the juice of Ellebore, and they have this opinion, That the veniſon which they take will eat the tenderer; but then they cut away the fleſh round about the wound made by the foreſaid arrows. Furthermore it is ſaid, That if white Ellebore be beaten to powder and ſtrewed upon milke, all the flies that taſt thereof will die. To conclude, the ſaid milke is good to rid away lice, nits, and ſuch like vermine out of the head and other parts of the bodie. G

Chap. vi.

Of the hearbe Mithridation. Of Scordotis or Scordium. Of Polemonia, and Philetæria, otherwiſe called Chiliodynama. Of Eupatorie or Agrimonie. Of great Centaurie, otherwiſe named Chironea. Of the little Centaurie, named alſo Libadion and Fel terræ. Of Triorches: and the medicinable vertues upon theſe Simples depending. H

Ratevas hath aſcribed the invention of one hearbe to king *Mithridates* himſelfe, called after his name Mithridation: This plant putteth foorth no more than two leaves, and thoſe directly and immediatly from the root, reſembling the leaves of Branc-urſine. There riſeth up a ſtem between them both in the mids, carrying an incarnat floure in the head like a roſe.

Pompeius Lenæus (who by the commaundement of *Pompey* the Great tranſlated into Latine the Phyſicke notes and receits of king *Mithridates*) ſaith moreover, That the ſaid prince found out another hearbe named Scordotis or Scordium; and that among other his writings he met with the deſcription of the ſaid hearbe, ſet downe under the kings owne hand in this manner; namely, That it grew a cubit high, with a maine ſtem foure ſquare, and the ſame full of braunches garniſhed with downie or furred leaves, indented and cut like to thoſe of the oke. This herb is found ordinarily growing within the region of Pontus, in battle and moiſt champian grounds, and in taſt is very bitter. There is another kind of Scordium, with larger & broader leaves, and like it is unto wild Minth or Calamint: both the one and the other be of great uſe in Phyſicke, either by themſelves alone, or els put into opiats and antidots among other ingredients. I

* Of πόλεμος, which ſignifieth, war or debate.

Touching * Polemonia, which others call Philetæria, it tooke the name upon occaſion of the ſtrife and controverſie between certain princes which debated about the firſt invention thereof. The Cappadocians know it by the name Chiliodynama, *i.* as one would ſay, endued with a thouſand vertues. This plant hath a thicke and groſſe root, but ſmall and ſlender branches, from the tops whereof there hang downe certaine berries in tufts and cluſters, encloſing within them blacke ſeed: in all other reſpects it reſembleth rue, and groweth commonly upon mountains. K

Eupator.

As for Agrimonie, called otherwiſe Eupatoria, it hath gotten credit & reputation by a * king, as it may appeare by the name. The ſtalke or ſtem of this hearbe is of a woodie ſubſtance, blackiſh in colour, hairie, and of a cubit in heigth or rather more. The leaves grow diſpoſed and diſtant by certain ſpaces aſunder, much like unto thoſe of cinquefoile or hempe, ſnipped and cut about the edges ordinarily in five parts; the ſame are of a blackiſh or darke greene, and full of a kind of plume or downe. The root is ſuperfluous for any operation that it hath in Phyſick: the ſeed of this hearb drunke in wine, is a ſingular remedie for the dyſenterie or bloudie flix. L

Rha-pontick.

The greater * Centaurie is that famous hearb wherewith *Chiron* the Centaure (as the report goeth) was cured, at what time as having entertained *Hercules* in his cabin, hee would needs be handling and tempering with the weapons of his ſaid gueſt, ſo long untill one of his arrows light upon his foot and wounded him dangerouſly: wherupon ſome there be who name it Chironion. The leaves grow large, broad, and long, endented or cut rather, like a ſaw round about the edges: neare unto the root they come up very thicke: the ſtems run up three cubits high, full of knots and joynts all the way: knobbed in the top like unto Poppie heads: the root is of a mightie bigneſſe, enclining to a red colour, howbeit tender and eaſie to breake or knap in ſunder: two cubits it beareth in length; full of a liquid juice: bitter in taſt, and yet ſweet withall: it loveth to grow upon banks and pretie hills, where the ground is fat and battle. The beſt Centaurie of this greater kind, commeth out of Arcadie, Elis, Meſſenia, Pholoe, and mount Lycæus: and yet there is good found upon the Alpes, and in many other places. Some there be, who out of this plant M

draw

A draw a juice in manner of Lycium. Of such efficacie it is to incarnat wounds, that (by report) if it be put into the pot to seeth among many gobbets or peeces of flesh, it will cause them to grow togither and unite. The root only is to be given inwardly, and namely in drinke, to the weight of two drams, in such cases as I will shew hereafter: with this charge, That if the Patient have an ague hanging upon him, it be stamped and taken in water: others may drinke it well enough in wine. Also the juice drawne forth of it when it is boiled, is good for the diseases or rot of sheepe.

Another Centaurie there is, surnamed also in Greeke Lepton, [*i.* Small] for that it hath little leaves in comparison of the other: some name it Libadion, for that it loveth to grow neare unto springs or fountaines: it is somewhat like unto Origan, save that the leaves bee narrowet and longer: the stalke is cornered, rising up to a small heigth, to wit, a hand-breadth or a span at
B most: the same also putteth forth little braunches: the floure hath some resemblance of the *red-rose campion: the root is small, & needlesse for any Physick use: but the juice of the herb it selfe, is of singular operation. This herb would be gathered in Autumne, when it is fresh, full of leaves and flours, for then it yeeldeth best juice. Some take the stalks and braunches, shred them small, let them lie infused in water eighteen daies, and then presse forth the juice. This is that * Centaurie, which we here in Italie call Fel Terræ, *i.* the Gall of the earth, by reason of the exceeding bitternesse which it hath: the Gauls tearme it Exacos, because if it be drunke it sendeth downward by seege out of the bodie, any hurtfull poison whatsoever.

*Lychnidis.

*Our common Centaurie.

There is a third Centaurie, named Centauris, knowne by the addition Triorches: whosoever commeth to cut this hearbe, he quits himselfe well and escapeth faire, if he wound not himselfe.
C This plant yeeldeth forth a certaine red juice like unto bloud. *Theophrastus* hath delivered in his historie of Plants, That the hawks* Triorchides protect and defend this hearbe, and are readie to encounter and fight with them that come to gather it; wherupon it tooke the foresaid name Triorchis. But many ignorant and unskilfull persons there be, who write confusedly of all these Centauries, and attribute this last propertie and name, to the first Centaurie the great.

*Our Buzzards (as *Turner* thinketh.)

Chap. VII.

Of Clymenos, Gentian, Lysimachia, Parthenius or Artemisia, Ambrosia, Nymphæa, Heraclium, and Euphorbium, with their operations in Physicke.

D THe hearbe Clymenos beareth the name of K. *Clymenus*, the first inventor and finder out thereof: Leafed it is like unto Ivie, full of braunches: the stalkes or stems bee hollow and emptie within, divided by joynts and partitions: of a strong and unpleasant smell: the seed resembleth the grains or berries of Ivie; and it taketh pleasure to grow in wild woods and among mountains. As touching the operations which it hath, and namely what diseases it cureth being taken in drinke, I will shew hereafter: meane while, I will not put off any longer, but advertise the reader even in this place, That this hearbe as it doth good one way, so it hurteth another; for if they be men that drinke it, well may it cure them of the maladies for which it is given, but surely it killeth their naturall seed and disableth them for getting children, so long as they use it. The
E Grecian writers described it to be like in leafe unto Plantaine: in stem four square, bringing forth certaine little cods full of seed, enfolded and enterlaced one within another after the manner of the tufted and curled hairs about the Pourcuttle fishes called Polypi. But bee it what it will, the juice of the hearbe is refrigerative, and of great use in Physicke.

As for the hearbe Gentian, wee must acknowledge *Gentius* K. of the Illyrians for the authour and patron thereof, for he brought it first into name and credit: and howsoever it grow in all places, yet the best is that which is found in Illyricum or Sclavonia. The leaves come neare in fashion and forme to those of the Ash tree, but that they be small in manner of Lettuce: the stem is tender, of a thumbe thickenesse, hollow as a kex and void within: leafed here and there with certaine spaces between, growing up otherwhile three cubits high. The root is pliable and will wind
F every way, somewhat blacke or duskish, without any smell at all: it groweth in great plentie upon waterish hillocks that lie at the foot of great mountaines, such as the alps be. The juice of the hearbe is medicinable, like as the root it selfe also, which is very hot of nature and not to be given in drinke to women with child.

Lysimachia, the hearbe so much commended by *Erasistratus*, beareth the name of K. *Lysi-*

machus, who first gave light of the vertues that it hath: greene leaves it beareth like unto those of the willow: the flours be purple: given much it is to braunch from the root, and those stalkes grow upright: a* sharpe smell it carrieth with it, and delighteth to live in waterie places. Of so effectuall vertue it is, that if it be laid upon the yoke of two beasts which will not draw gently together, it staieth their strife and maketh them agree well enough. G

* *Odore acri*: Surely our herb Willow or *Lysimachia* hath a kind of sharpe coole sent not unpleasant: although *Plinie* use the word (*acri*) for hot and biting, in other places. Hereupon it might well be called λυσιμαδα, i. Lustre, and not of K. *Lysimachus*.

Not men onely and great kings, but women also and queens have affected this kind of glorie, To give names unto hearbs. Thus queene *Artemisia* wife to *Mausolus* king of Caria, eternized her owne name by adopting (as it were) the hearbe Mugwort unto her selfe, calling it Artemisia, whereas before, it was named Parthemis. Some there be who attribute this denomination unto *Diana* (called in Greeke Artemis Ilithyia) because it is of speciall operation to cure the maladies incident to women. It brauncheth and busheth thicke much like unto wormwood, but that the leaves be bigger, fat and well liking withall. Of this Mugwort there be two kinds: The one carieth broad leaves; the other is tender and the leaves smaller: this groweth no where but along the sea coasts. There be writers who call by this name Artemisia, another hearb, growing in the midland parts of the maine and far from the sea, with one simple stem, bearing very small leaves and plentie of flours, which commonly breake forth and blow when grapes begin to ripen, and those cast no unpleasant smell, which hearbe some thereupon name * Botrys, others Ambrosia: and of this kind there is great store in Cappadocia. H

* Or rather, *Botrys* (i. oke of Ierusalem) is of some called *Artemisia*, of others *Ambrosia*, as saith *Dioscorides*.

* Nemphar is called in Greeke Nymphæa; the originall of which hearb and name also, arose by occasion of a certain maiden nymph or young ladie, who died for jealousie that she had conceived of prince *Hercules* whome she loved: and therefore by some it is named also Heraclion, of others Rhipalos, for the resemblance that the root hath to a club or mace. But to come again to our first name Nymphæa, this qualitie it hath alluding and respective thereunto, That whosoever doe take it in drinke, shall for twelve daies after find no pricke of the flesh, no disposition (I say) to the act of venerie or companie of women, as being deprived for that time of all naturall seed. The best Nemphar or Nymphæa, is found in the lake Orchomenus, and about the plaine of Marathon. The people of Bœotia, who also use to eat the seed therof, commonly call it Madon. It taketh great contentment to grow in waters: the leaves floting upon the face of the water, be broad and large, whiles others put foorth from the root. The floure resembleth the Lillie, which when it is once shed, there be certain knobs remaining like unto the bolls or heads of Poppie. The proper season to cut the stems and heads of this plant, is in Autumne. The root is black, which being gathered and dried in the Sunne, is counted a soveraigne remedie for those that be vexed with the flux or fretting of the belly. A second * Nemphar or Nymphæa there is, growing in Thessalie, within the river Peneus, with a white root, but a yellow floure in the head about the bigneſſe of a rose. I K

* Water rose.

No longer agoe than in our forefathers daies, *Iuba* king of Mauritania, found out the hearb Euphorbia, which hee so called after the name of his owne Physician *Euphorbus*, brother to that learned *Musa* Physician to *Augustus Cæsar*, who saved the life of the said Emperor, as heretofore I have declared. These two brethren Physicians, joyned togither in counsell, and gave direction for to wash the bodie all over in much cold water, after the hote baine or stouve, thereby to knit and bind the pores of the skin: for before their time, the manner was to bathe in hot water onely, as we may see plainely in the Poët *Homer*. But now to returne unto our hearbe Euphorbia, the foresaid king *Iuba* wrote one entire booke (at this day extant) wherein hee doth nothing else but expressely set forth the commendable vertues and properties of this one hearbe. Hee found the same first upon the mountain Atlas, where it was to be seene (saith he) bearing leaves resembling Branc-ursine: so strong and forcible it is, that those who receive the juice or liquor issuing from it, must stand a good way off; for the manner is to launce or wound it first, and then presently to retire backe, and so at the end of a long pole to put under it a paile or trey made of kids or goats leather for a receptorie; into which there runneth forth out of the plant, a white liquor like unto milke: which when it is dried and growne togither, resembleth in shew a lumpe or masse of frankincense. They that have the gathering of this juice called Euphorbium, find this benefit therby, That they see more clearely than they did before. An excellent remedie this is against the venom of serpents, for what part soever is stung or wounded by them, make a light incision upon the * crowne [of the head] and apply thereto this medicinable liquor, it will surely cure it. But in that country, the Getulians (who commonly doe gather Euphorbium, for that they border upon the L M

* Or the upper part of the hurt place.

mount

A mount Atlas) ſophiſticat it with Goats milk. Howbeit, fire will ſoon detect this impoſure of theirs, for that which is not right but corrupt, when it burneth, doth yeeld a lothſome fume and ſtinking ſent. The juice or liquor which in Fraunce is drawne out the hearbe Chamælea (the ſame that beareth the red graine, named by the Latines Coccum) commeth farre ſhort of this Euphorbium. The ſame being growne thicke and hard, if a man breake it, reſembleth gum Ammoniacke. Taſt it never ſo little at the tongues end, it ſetteth all the mouth on a fire, and ſo continueth it a long time hote, but more by fits, untill in the end it parcheth and drieth the chawes and throat alſo farre within.

Chap. viii.

B *Of Plantain, Bugloſſe, and Borrage. Of Cynogloſſa or Hounds tongue. Of Buphthalmus, i. Ox eye or Many-weed. Of Scythica, Hippice, and Iſchæmon. Of Vettonica and Cantabrica. Of *Conſiligo and Hiberis. Of Celendine the great, Canaria and Elaphoboſcos. Of Dictamnum, Ariſtolochie or Hert-wort: That fiſh are delighted ſo much therwith, that they will make haſt unto it, and be ſoon taken. Alſo the medicinable vertues of thoſe hearbes abovenamed.*

* Setterwort or Bears foot, as ſome think.

Themiſon, a famous Phyſician, ſet forth a whole booke of the hearbe Waibread or Plantain, wherein he highly praiſeth it: and challengeth to himſelfe the honour of firſt finding it out; notwithſtanding it be a triviall and common hearbe, trodden under every mans foot. Two kinds of it bee found: The one which is the leſſer, hath alſo narrower leaves, and enclining more
C to a blackiſh greene, reſembling for all the world ſheepe *or lambes tongues, the ſtalke is cornered bending downeward to the ground, & it groweth ordinarily in meddowes. The other is greater, with leaves encloſed (as it were) within certaine ribs reſembling the ſides of our body: which being in number ſeven, gave occaſion to ſome Herbariſts for to call it Heptapleuron, as a man would ſay, the ſeven ribbed hearbe. The ſtem of this Plantaine riſeth to a cubit in height, much like to that of the Naphew. That which groweth in moiſt and waterie places, is of greater vertue than the other. Of wonderfull power and efficacie it is by the aſtringent qualitie that it hath, for to drie and condenſite any part of the bodie, and ſerveth many times in ſtead of a cauterie or fearing yron. And there is nothing in the world comparable unto it, in ſtaying of fluxes and deſtillations, which the Greekes call Rheumatiſmes.

* Whereupon it ſeemeth to be called in Greek ἀρὴς λαιὰν.

D To Plantaine may he joined the hearbe *Bugloſſos, ſo called, for that the leafe is like an Oxe tongue. This hearbe hath one ſpeciall propertie above the reſt, that if it be put into a cup of wine it cheareth the heart, and maketh them that drinke it, pleaſant and merrie; whereupon it is called Euphroſynon.

* Our Borrage.

Vnto this for affinitie of name, it were good to annex Cynogloſſos, *i.* Hounds tongue, for the reſemblance that the leaves have to a dogs tongue: a proper hearbe for vinet-workes and knots in gardens. It is commonly ſaid, That the root of that Cynogloſſos which putteth foorth three ſtems or ſtalkes, and thoſe bearing ſeed, if it bee given to drinke, cureth Tertian agues: but the root of that which hath foure, is as good for the Quartanes. Another *Cynogloſſos there is like unto it, which carieth ſmall burres: the root whereof being drunke in water, is a ſingular countre-
E poyſon againſt the venome of toads and ſerpents.

* This is our cõmon Hound-tongue with little burs.

An hearbe there is with flowers like unto Oxe eyes, whereupon it tooke the name in Greeke *Buphthalmos: the leaves reſemble Fennell: & it groweth about towne ſides: it ſhutteth forth ſtalkes from the root plentifully, which being boiled, are good to be eaten. Some there bee who call it Cachla. This hearbe made into a ſalve with wax, reſolveth all *ſchirrhous & hard ſwellings.

* Somecal them Moones.

* *Schirrhomata*, otherwiſe *Stecomata*, which be bunches or ſwellings in the fleſh full of a greaſie matter.

Other plants there bee, which beare the names not of men but of whole nations, which firſt found them and their vertues out. And to begin withall, beholden wee are to Scythia for that which is called Scythica. It groweth notwithſtanding in Bœotia, and is exceeding ſweet in taſt. Alſo there is another of that name, ſingular good for the crampes, called by the Greekes Spaſmata. An excellent propertie it hath beſides, for that whoſoever holds it in their mouth, ſhall for
F the time be neither hungrie nor thirſtie. Of the ſame operation there is another hearbe among the Scythians or Tartars, called *Hippice, becauſe it worketh the like effect in horſes, keeping them from hunger and thirſt. And if it bee true that is reported, the Scythians with theſe hearbs will endure without meat or drinke for twelve daies together.

* *Theophraſtus* writeth the like of the ſweet root or Liquirice and Hippace, which is cheeſe made of Mares milk: but not of any hearb Hippice

Touching the hearbe Iſchæmon, the Thracians firſt found out the rare vertue that it hath in ſtanching

ſtanching bloud, according as the very name implieth. For (ſay they) it will ſtop the flux of bloud running and guſhing out of a veine not onely opened, but alſo if it were cut through. It coucheth and creepeth low by the ground, and is like unto Millet, but that the leaves bee rough and hairie. The manner is to ſtuffe the noſthrils therewith for to ſtay the bleeding at noſe. And that which groweth in Italie ſtancheth bloud, if it be but hanged about the necke, or tied to any part of the bodie. G

Betonie. The people in Spaine named Vettones, were the firſt authors of that hearbe, which is called in Fraunce *Vettonica, in Italy Serratula, and by the Greekes Ceſtron or Pſychotrophon: Surely an excellent hearbe this is, and above all other Simples moſt worthie of praiſe. It commeth forth of the ground, and riſeth up with a cornered ſtalke, to the height of two cubits, ſpreading from the very root leaves of the bigneſſe of Sorrell, cut in the edges or toothed in manner of a ſaw, with flowers of a purple colour growing in a ſpike, & ſeed correſpondent thereto. The leaves dried and brought into pouder, be good for very many uſes. There is a wine and vinegre made or condite rather with Betonie, ſoveraigne for to ſtrengthen the ſtomacke, and clarifie the eyeſight. This glorious prerogative hath Betonie, that looke about what houſe ſoever it is ſet or ſowed, the ſame is thought to be in the protection of the gods, & ſafe ynough for committing any offence, which may deſerve their vengeance and need any expiation or propitiatorie ſacrifice. H

A kind of wild Gilloſre. In the ſame Spaine groweth *Cantabrica, lately found by the people Cantabri, and no longer ſince than in the daies of *Auguſtus Ceſar*. This hearbe is to bee ſeene every where, riſing up with a bentie or ruſhie ſtalke a foot high, upon which you may behold ſmall long flowers, like unto cups or beakers, wherein lie encloſed very ſmall ſeeds. Certes, to ſpeake the truth of Spaine, it hath been alwaies a nation curious in ſeeking after Simples. And even at this day in their great feaſts where they meet to make merrie Sans-nombre, they have a certaine Waſſaile or Bragat, which goeth round about the table, made of honied wine or ſweet mead, with a hundred diſtinct hearbes in it: and they are perſuaded that it is the moſt pleaſant and wholeſomeſt drinke that can bee deviſed: yet there is not one amongſt them all who knoweth preciſely what ſpeciall hearbs there bee in all that number; in this onely they bee all perfect, that there goe a hundred ſeverall kinds thereto, according as the name doth import. I

Much like to the Welch Metheglin.

In our age we remember well, that there was an hearbe diſcovered in the Marſians countrey: and yet it groweth alſo amongſt the people named Æquiccolæ, neare unto the borrough Nerveſia, and they call it * Conſiligo: this is a ſoveraign plant, as we ſhall ſhew hereafter in place convenient, for thoſe that be ſo farre gone in a Phthiſicke or Conſumption, as no man would hight them life and recoverie.

Bearefoot. K

Written in Iambicke verſes as appeareth in *Galen.* Of late daies *Servilius Danocritus*, a famous practitioner in Phyſick, brought to light an hearbe, which he tearmed Hiberis, a deviſed and fained name for his owne pleaſure, and nothing ſignificant, as may appear by a certain *Poëme that he made as touching the diſcoverie of that hearb. It commeth up moſt willingly about old tombes and ſepulchres, decaied walls, and ruinat buildings, in untoiled and neglected places, and namely, common high waies. It beareth flowers at all times, and is leaved like to Creſſes: the maine ſtalke is a cubit high: but the ſeed ſo fine and ſmall, that hardly they can diſcerne it. The root alſo hath the very ſmell of Creſſes: it ſerveth to many good purpoſes, but with moſt ſucceſſe in Summer time, and never but when it is green and freſh gathered. Much adoe and trouble there is about the punning and ſtamping of it. Beeing tempered and incorporat with a little Hogs greaſe, it is ſingular to be applied to the paine of the hucklebone called Sciatica, as alſo to the gout of any joints whatſoever. If the patient be a man, it muſt lie bound faſt unto the place foure houres at the moſt: but women may abide it but halfe ſo long, provided alwaies, that preſently upon this medicine they goe downe into an hot baine, and after they have bathed, annoint their bodies all over with wine and oyle. Thus muſt the patient doe once every twentie daies, ſo long as there remaineth any grudging or minding of the foreſaid paine. And ſurely in this ſort it drieth up and cureth all ſecret and inward rheumes running neare unto the bones. Howbeit, this caveat would bee given, not to lay this plaſtre too in the very heat and furie of the paine or diſeaſe; but the time muſt bee waited when the extremitie is ſomewhat ſlaked and overpaſt. L M

our Celendine. Moreover, other living creatures alſo there be beſides men, unto which we are to attribute the invention of hearbes: as firſt and principally, the great *Celendine, called in Greek Chelidonia, for that the old Swallowes with the helpe of this hearbe helpe their young ones to ſee again, yea

though

A though their eyes were plucked out of their head, as some are of opinion. Of this heatbe there be two kinds: The greater, which putteth forth many stems, and those full of braunches, beareth leaves like unto the wild *Parsenep, but that they be larger. The hearbe it selfe groweth up to the height of two cubits. The leaves bee whitish or hoarie, like as the whole plant it selfe, all save the flower, which is yellow. The whole hearb yeeldeth a biting and fretting juice, of the colour of Saffron: and it bringeth forth seed resembling that of Poppie. The lesse *Celendine is seene with leaves fashioned much after the Ivie, but that they be rounder. Both Celendines doe flower in the Spring, about the time that the Swallowes come abroad and shew themselves unto us, and those flowers begin to fade again upon the departure of that bird from us. The only time to draw or presse their juice from them, is whiles they bee in the flower: Which if it bee put into a brasen
B pan, and seeth gently upon hote embers or ashes onely, together with the best Atticke honey, is a singular medicine to discusse and scatter the cloudie filmes that dim the eyesight. The said juice alone without any other preparations, goeth to the making of many collyries or eyesalves, which be called Chelidonia, by reason of that ingredient.

Touching the dogs grasse Canaria, it took that name in Latin, because dogs use therwith to dis-
3 charge their gorge & whet their stomacks when their appetite to meat is gone. A strange thing of these dogs; we see them chew this hearbe in our sight ordinarily every day, yet so, as we never can tell which *hearbe it is that they have bitten: for we may perceive it onely when it is eaten down. But no marvell if this creature be so spightfull as to conceale from us a purgative hearbe, consi-
C dering a greater malice that he sheweth in another: For it is said, that if a dog bee bitten by a serpent, he hath recourse by and by to a certaine hearbe that cureth him presently, but hee will bee sure that no man shall see him when he croppeth that hearbe.

Yet the poore hinds (simple and harmelesse creatures they) are not so coy and dainty of their knowledge, for they have shewed us the plant * Elaphoboscon, whereof I have already written: like as the hearbe *Seseli also, which presently after they have calved, they feed upon in our sight, and make it not straunge. Nay, they have not thought much to impart unto us the vertue of the hearbe Dictamnus (as I have partly declared heretofore) for we may evidently see them after they be shot or wounded, to go forthwith unto this hearbe, and no sooner have they eat of it, but im-
5 mediatly the arrows or darts wherewith they were hurt and sticking in them, fall out of their bo-
D dies. This plant is found growing no where but in the Island Candie. The braunches bee exceeding fine and slender: It resembleth in some sort Penyroiall. At the tongues end hot it is and biting. And the leaves onely are in use: for *neither flower nor seed it hath, ne yet any stem or stalk. As for the root, as it is small and little, so is it *needlesse for any good it doth in Physicke. A rare plant this Dictamnus is, for even in Candie (the natural place therof) it groweth not every where, but within some small compasse of ground within that Isle: and there Goats have a wonderfull desire to be feeding upon it. Mary in lieu of this true Dictamnus, there is a bastard kind found in many countries, called Pseudodictamnum: In leafe it resembleth the other, the branches be lesse: and some there be who name it Chondris. That it is of weaker operation, and nothing so effectuall as the former, a man shall soone find by the tast: for take never so little of the right Dictam-
E num into the mouth, it setteth it presently on a fire. They that use to gather these Dictamnes, bestow them close wrapped within the stems of Ferula or reeds, and then bind them fast together, for feare that their vertue and strength should exhale and vanish away. Writers there be who affirme, That both the one and the other Dictamnum doe grow in many countries: but the worst is that which commeth up in rich and fat grounds. Therfore they that would meet with the right Dictamnum, must seeke it in rough places, for no where els it loveth to grow. A third kind there is of Dictamnum, and so called: but neither in shape answerable, nor in effect comparable to the other. In leafe it resembleth water Mints, but that the braunches be greater. Moreover, this setled and deepe persuasion men have of Candie, that what Simples soever grow there, they be infinitly better than all others of the same kind whatsoever. Next unto which Island there goeth a
F great name and opinion of the mountaine Pernassus, for excellent hearbs: howsoever otherwise mount Pelius in Thessalie, the hill Telechrius in Eubœa: and generally, all Arcadia, & the countrey of Laconica throughout, be renowned much for plentie of good Simples. And yet the Arcadians verely use no other Physicke but milke onely, and that about the Spring, at what time all hearbs there, be in their best verdure and fullest of sap; so as the udders of beasts be their Physicians, yeelding them medicines out of the pastures. But above all, they use to drinke Cow milke, for

Pastinacæ erraticæ. Some read *Ranunculi*, i. Crowfoot, out of *Dioscor.*

* *Scrophularia*, i. Pilewort or Figwort. This floureth sooner, to wit, in Februarie.

* With us they doe eat the common Quich-grasse.

* *Gratia dei.*

* Which the old Romanes called *Silì*: whereof *Festus* thinketh that *Silutũ* (i. a breakfast) tooke the name: because they used before dinner or noon refection, to drinke a draught of wine aromatized with this hearbe.

* In *Dioscorides*, whom *Plinie* seemeth here to translate, it should be read thus, οὔτε ἄνθος, οὔτε σπερμὰ συμφέρει, not φέρει, that is, Neither floure nor seed is medicinable: for, that it hath floures, appeareth by *Virgil* 12 Æneid. in these verses: *Dictamnum genitrix Cretæa carpit ab Ida, Puberibus caulem foliis, & flore comantem. Purpureo, &c.*

* Yet *Dioscorides* saith, that it helpeth women to speedie childbirth.

for that thoſe kind of cattell, feed indifferently in manner of all kind of hearbes. Certes, of what power and efficacie hearbes are, and namely, what effects they may worke even by the milke of fourefooted beaſts graſing and paſturing therupon, appeareth manifeſtly by two notable examples which I will report unto you. About Abdera, and along the ſtreet or high way called *Diomedes* cauſey, there lie certaine paſtures, wherein all the horſes that feed, become enraged, and ſtark wood thereby. Semblably, the hearbage belonging to Potniæ, a town in Magneſia, driveth aſſes to a kind of madneſſe. G

Leaving now thoſe hearbs which tooke their appellations of beaſts, let us proceed to others. Among which, Ariſtolochia deſerveth to bee raunged with the beſt and principall: an hearbe which ſeemeth to have had that name given it by great bellied women, for that it is * ἀρίστη λεχέσαις. Our countreymen of Italie call this hearbe in Latine Malum terræ, which is as much to ſay, as the * apple of the earth: and they doe make foure kinds thereof. The firſt hath a round root ſwelling and bunching out: leaves reſembling the Mallow, and partly thoſe of Ivie, but that they bee of a more browne and duskiſh colour, and withall, ſofter in the hand. The ſecond Ariſtolochia or Birthwort is taken to be the male, and hath a root as thicke as a good baſton or ſtaffe, growing longwiſe to the length of foure fingers. The third, which by ſome is called Clematis, by others, Ariſtolochie of Candie, hath a root exceeding long and ſlender, like to that of a yong Vine: and this is reputed of all others for the beſt and moſt effectuall. The roots of them all be of a box colour, the ſtalkes ſmall, and the flowers purple. They beare little prettie berries, much like to capers. But it is the root alone which is medicinable. A fourth kind there is alſo, which they call Piſtolochia, ſmaller and ſlenderer than the laſt before, named Clematis. A root it hath divided into many fibres or ſtrings, growing thicke one by another, to the thickneſſe of big and well growne ruſhes: whereupon ſome have given it the name of Polyrrhizon. All the ſort of theſe Ariſtolochies yeeld an aromaticall odour: but the long and ſmaller root is that which is moſt pleaſant to ſmell unto: for it hath a fleſhie rind, and is one of the principall ingredients which enter into thoſe odoriferous perfumes and ointments which ſtand moſt upon Nard. Theſe Birthworts delight all of them to grow upon plaines and battle grounds. The right ſeaſon to dig or draw them out of the earth, is in harveſt time: and then after they be rid and skaled (as it were) from the earth or mould ſticking unto them, they uſe to lay them up ſafe. Howbeit the beſt ſimply are thoſe which come out of Pontus. And take this for a generall rule, That in every kind, the weightieſt is alwaies moſt medicinable. The round rooted Ariſtolochie hath a ſpeciall propertie againſt the poyſon of ſerpents. Yet there goeth the greateſt name of the long, for this excellent qualitie, if it bee true that is reported thereof: namely, That if a woman newly conceived with child, applie the root thereof to her naturall parts within a morcell of raw bœufe, it will cauſe her to breed and forme in her wombe a man child. Our Fiſhers here by in Campaine, do tearme the round root, The poyſon of the earth. In very truth I have ſeene them with mine owne eyes to ſtampe the ſaid root, and incorporat it with lime into a paſte, and ſo to caſt it into the ſea in ſmall pellets or gobbets, for to catch fiſhes: and I aſſure you they will skud amaine, and make haſt to this bait, and bee very eager of bit: but no ſooner have they taſted thereof, but they will turne up their bellies, and lie floating aloft upon the water ſtarke dead. As for that Ariſtolochie, which for the manifold roots that it hath is called Polyrrhizos, it is thought to bee ſoveraigne for convulſions or crampes, contuſions, or bruiſes; for ſuch alſo as have fallen from ſome ſteepe and high place, if the root bee drunke in water. Likewiſe, the ſeed of this kind, is ſuppoſed ſingular good for the pleuriſie: and to corroborat, ſtrengthen and heat weake and diſtempered ſinewes. The ſame likewiſe may bee reckoned for a * Satyrion. H I K L

*i, Excellent good for women in childbed. Wherein *Plinie* is ſomewhat overſeen, but the error is not great, ſeeing that women with child uſe ordinarily alſo to bee brought a bed and lie in.

* Meant by Ariſtolochie or Birthwort the round.

*Any hearbe good to provoke ſtirring luſt. For although there be a ſpeciall hearbe of that vertue, ſo called, yet by a kind of Synecdoche, all others of like operation may be tearmed Satyria.

It remaineth now to knit up this diſcourſe with a rehearſall of all the operations and effects of the plants beforenamed. To begin then with the moſt daungerous accident of all other, to wit, the ſting of ſerpents, theſe hearbes following are very medicinable and effectuall in that caſe: namely, Brittannica, and the roots of all the kinds of Panaces taken in wine. The flower and ſeed beſides (of Chironium eſpecially) if it be drunk, or otherwiſe applied as a liniment with wine and oile. Alſo the wild Origan or Marjeram called Cunila Eubula, hath a ſingular property by it ſelfe that way: like as Polomonia, otherwiſe called Philetœria, if one take foure drams weight of the root in wine. Semblably, Teucrion, Sideritis, and Scordotis, given in wine. But more particularly againſt ſnakes, adders, and ſuch like, the ſaid hearbs bee right ſoveraigne, either inwardly taken or M

out-

A outwardly applied upon the wound, be it in juice, ſubſtance of leaſe, or decoction, it skilleth not whether: for which purpoſe a dram weight of the root of great Centaurie drunke in three cyaths of white wine is excellent. As for Gentian, it ſerveth properly againſt ſnakes, if it be taken to the poiſe of two drams with Pepper and Rue, in ſix cyaths of wine, greene or drie, it makes no matter. Touching hearbe Willow or Lyſimachia, ſerpents cannot abide the very ſmell thereof, but flie from it. If any bodie chance to be ſtung alreadie by them, there is not a better medicine than to give Celendine in drinke. But of Betonie above all the reſt there is made a moſt ſoveraigne ſalve to bee laid unto the place that is ſtung. And ſuch a contrarietie in nature or Antipathie there is (by folkes report) betweene them and this hearbe, that if the leaves thereof be ſtrewed in a circle round about them, the ſerpents within will never give over flapping with their tailes, and
B beating their owne ſides, untill they have killed themſelves. Now for their ſting, it is an uſuall practiſe to give inwardly one dram weight of the ſeed of Betonie in three cyaths of wine, or elſe to incorporat three drams of the pouder in one ſextar of water, and lay it as a cataplaſme to the ſore. Cantabrica, Dictamnum, and Ariſtolochia, ſerve likewiſe for good countrepoyſons, in caſe a dram weight of their root bee given in one hemine of wine. But then the patient muſt uſe to drinke it often. And verely Ariſtolochia worketh the ſame effect, if it be reduced into a liniment and ſo applied: ſo doth Piſtolochia, which hearbe is ſo adverſative unto ſerpents, that if you do but hang it up in the chimney over the hearth, it will chaſe away all kind of ſerpents out of the houſe.

Chap. IX.

C *Of Argemonie, Agarick, and Echium. Of Henbane and Vervaine. Of Blattaria and Lemonia. Of Cinquefoile, Carot, and the Clot or great Bur. Of Cyclaminus or Sowbread, and Harſtrang: hearbs all ſingular againſt the ſting of ſerpents.*

THe root of Argemonia taken to the weight of one Romane denier in three cyaths of wine, is ſingular againſt the ſting of ſerpents. And ſince I am come to mention this hearb, I think it convenient to diſcourſe farther thereof: like as of other ſimples alſo, which I meane to name firſt, before that I treat of their vertues and effects. And in this courſe of ſetting down medicines, ever as I meet with any hearbe of any ſingularitie, I will raunge it there whereas I know it
D to be moſt ſoveraigne and effectuall. Well, this *Argemonie aforeſaid hath leaves like unto Anemonie, *An hearbe like to the wild Poppie. Roſe Perſeley or Windflower: jagged they be in manner of garden Perſeley. Heads it beareth in the top of every ſtalke or branch, reſembling thoſe of wild Poppie or Corne-roſe: and a root alſo not unlike to that of the ſaid hearbe. A juice it yeeldeth, yellow as Saffron, hot, ſharp, and biting in taſt. With us here in Italie it groweth upon corne lands. Our countrymen have deſcribed three kinds thereof, but they allow and commend that onely, which hath a root ſenting much of Frankincenſe.

Touching Agaricke, it is a fungous excreſcence growing out of certaine trees neare unto the ſtreights of Boſphorus, much like unto a white Mulhrome. The ordinarie doſe or receit thereof, to be given, bruiſed, and beaten ſmall into pouder, is to the weight of two drams in two cyaths of
E Oxymell or honied vinegre. That which is found in Gaule or Fraunce, is thought to bee weaker in operation. Moreover, that Agaricke is counted the male which is more maſſive or compact, and bitterer withall: But one ill qualitie it hath, namely, to make the head to ake. The female is of a more looſe and ſofter ſubſtance: which at the firſt when you taſt it ſeemeth ſweet, but within a while it turneth to be bitter.

Echium is of two kinds. One of them is like unto Peniroyall, garniſhed & crowned (as it were) with tufts of leaves in the head: which being given to the weight of two drams in foure cyaths of wine, is ſingular good for the venome of ſerpents, inflicted by their ſting. The like effect hath the other alſo, which is diſtinctly knowne from the other by the rough and prickie downe that the leaves doe beare, and it carieth in the top little knobs reſembling vipers heads: and this may be
F taken either in wine or in vinegre, chuſe you whether.

The great Clot-bur, called in Greek Arcion, ſome have named in Latine Perſonata. There is not a plant in the field that carieth a broader leaſe, and beſides, furniſhed it is with as big Burres. The root of this hearbe boiled, the Phyſicians preſcribe to be given in vinegre to drinke againſt the ſting of ſerpents.

Hen-

Henbane, ſtamped leaves and all, is ſingular to bee taken in wine, eſpecially againſt the ſting of the Aſpides. G

*Vervaine. But of all other hearbes, there is none more honoured among the Romanes than *Hierobotane, called alſo otherwiſe in Greeke Periſtereon: which we in Latine name Verbenaca. This is that hearbe, which (as I have declared heretofore) our Embaſſadors uſe to carie with them when they goe to denounce warre, and to give defiance unto our enemies. With this hearbe the feaſtivall table of *Iupiter* is wont to be ſwept and cleanſed with great ſolemnitie; our houſes alſo to be rubbed and hallowed, for to drive away ill ſpirits. And hereof be two kinds. That which they take to bee the female, is ſtored well with leaves; the male hath them growing but thin: yet both of them put forth many ſmall and ſlender braunches, commonly a cubit long, and cornered. The leaves be leſſer and narrower than thoſe of the Oke, but deeper they be indented, and the partition wider: the flowers be of a *gray colour, the root long and ſmall. It groweth every where upon plaines ſubject unto waters. Some writers make no diſtinction at all of male and femele, but hold them all to be of one and the ſame kind, becauſe they worke the ſame effects. In France the Druidæ uſe them both indifferently, in caſting lots, telling fortunes, & foreſhewing future events by way of propheſie. But the Wiſe men or Sages called Magi, overpaſſe themſelves mightily in this hearbe, and ſhew their foolerie and vanitie without all ſence and reaſon: They would beare us in hand forſooth, that whoſoever bee rubbed all over the bodie therewith, ſhall obtaine whatſoever their heart deſireth, bee able to cure and drive away all manner of agues, reconcile them that be fallen out, make freindſhip betweene whom they liſt, and in one word, give remedie to any diſeaſe whatſoever. They give moreover expreſſe order, that it bee gathered about the riſing of the great Dogſtarre, but ſo, as neither Sunne nor Moone be at that time above the earth to ſee it; with this eſpeciall charge beſides, that before they take up the hearbe, they beſtow upon the ground where it groweth, honey with the combes, in token of ſatisfaction and amends for the wrong and violence done in depriving her of ſo worthie an hearbe. They reſt not ſo, but when thoſe ceremonious circumſtances be performed, they enjoine them alſo who are to dig it up, for to make a circle round about the place with ſome inſtrument of yron, and then to draw & plucke it up with the left hand in any wiſe, and ſo to fling it aloft over their heads up into the aire: which done, they appoint preciſely that it bee dried in the ſhade, leaves, ſtalkes, and roots, every one apart by themſelves. To conclude, they adde moreover and ſay, that if the hall or dining chamber bee ſprinckled with the water wherein Vervaine lay ſteeped, all that ſit at the table ſhall bee very pleaſant, and make merrie more jocundly. Well, to leave theſe toies and fooleries, the truth is this, ſtampe and beat it, give the juice or pouder therof in wine, it is a good defenſative againſt the poyſon of ſerpents. H K

*Dapalis. Arnob. lib. 2.

*Flos Glaucus.

An hearbe there is much reſembling Mullen or Langwort, and indeed ſo like, as oftentimes one is taken for the other; howbeit, the leaves be not altogether ſo white, and more little braunches it putteth foorth, bearing likewiſe a pale yellow flower. Caſt this hearbe or ſtrew it in any place, all the moths thereabout will gather to it, whereupon at Rome they call it Blattaria.

The hearbe Lemonium yeeldeth a white juice much like unto milke, which will harden and grow together in manner of a gum: and it groweth in moiſt places. The weight of one denarius given in wine, is a ſingular preſervative againſt the daungerous ſting of ſerpents. L

As for Cinque-foile or five leaved graſſe, there is not one but knoweth it: ſo common it is, and commendable beſides for the *ſtrawberries which it beareth. The Greekes call it Pentapetes, Chamæzelon, or Pentaphyllon: the Latines Quinqueſolium. The root when it is new digged, looketh red: but as it beginneth to drie above ground, ſo it waxeth blacke, and becommeth alſo cornered. It tooke the common name both in Greeke and Latine, of the number of leaves which it beareth. This hearbe herein is of great affinitie with the vine, that they both bud, ſpring leafe, and ſhed the ſame together. It is uſed alſo about purging and bleſſing of the houſe, againſt naughtie ſpirits or enchauntments.

Plinie herein erreth groſſely. Indeed the leaves of Cinque-foile are much like to the Strawberrie leafe: But as the one hath no fruit or berrie at all, ſo the other (to wit, the Strawberrie-wire) puts forth but three leaves. * The tame and the wild.

As for Sparganium, an hearbe ſo called by the Greekes, the root thereof is good to be given in white wine againſt venomous ſerpents. M

Of Carrots, *Petronius Diodotus* hath ſet downe foure ſeverall kinds. But what need I to goe through them all foure, ſeeing they may be reduced well ynough into *twaine, and do require no other diſtinctions. The beſt and moſt approoved Carrots be thoſe of Candie: the next to which in goodneſſe come out of Achaia. But generally in what countrey ſoever they grow, the better

be

A be ſuch as come up in the ſounder and drier grounds. As touching the Candie Carot, it reſembleth Fennell, but that the leaves ſtand more upon the white; they bee ſmaller alſo and hairie withall. The ſtem groweth upright a foot high, and hath a root odoriferous to ſmell unto, and of a moſt pleaſant taſt: this joyeth in ſtonie places expoſed to the South quarter of the world. As for the other Carots of a wild nature, In what countrey grow they not? you ſhall find them upon earthie banks and hills, you ſhall have them about high waies, but never ſhall a man meet with them in a leane and hungrie ground; they love a battle and fat ſoile: their leaves come near to the Coriander: their ſtem ariſeth to a cubit heigth, bearing round heads, three ordinarily, and otherwhiles more: the root is of a woodie ſubſtance, and being once dried, it ſerveth to no purpoſe. The ſeed of this kind is like unto Cumin; but of the former, to Millet graine, white, quicke,
B and ſharpe; and they bee all odoriferous and hot in the mouth. The ſeed of the ſecond is more ægre and biting than the former, and therefore ought to be taken in leſſe quantitie. As for the third kind (if we liſt to make ſo many) it is much like unto the wild Parſnep, called in Greeke Staphylinos, and in Latine Paſtinaca Erratica: the ſame beareth a ſeed ſomwhat long in forme, and a ſweet root. All the ſort of theſe Dauci or Carots, are ſafe enough from the bit of foure-footed beaſts both winter and ſummer, unleſſe it be after they have caſt their abortive fruit before time [for then they ſeeke thereto, to be cleanſed of their gleane.] Of all Carots, the ſeeds be uſed only: but that of Candie affourdeth the root alſo, which is ſweet: but both the ſeed of the one ſort and the root of the other, be moſt appropriat remedies againſt ſerpents: a dram weight in wine is a ſufficient doſe at a time: which alſo may bee given in a drench to four-footed beaſts that be
C ſtung by them.

Touching the hearbe Therionarca (I mean not that which the magicians uſe) it groweth alſo in this part of the world here with us in Italy: many branches it putteth forth, and ſpringeth thick with divers ſhoots from the root: the leaves be of a light greene, and the floure of a red-roſe colour: it killeth ſerpents outright: beſides, it hath this propertie, That if it be brought neare unto any wild beaſt whatſoever, it benummeth their ſenſes, [whereupon it tooke that name.]

Perſolata, which the Greeke writers call * Arcion, there is not one but knoweth: large leaves it hath, and bigger than the very Gourds; more hairie, blacker alſo and thicker; a white root and a great: this root taken in wine to the weight of two deniers Roman, is good likewiſe againſt the venom of ſerpents. In like manner, the root of Cyclaminus or Sow-bread is as effectuall againſt
D them all: leaves it hath ſomewhat reſembling thoſe of Ivie, but that they be of a more duskiſh and ſad greene, ſmaller alſo and without corners, wherein a man may perceive certaine whitiſh ſpecks. The ſtem is little, and hollow within: the flours of a purple colour; the root broad (ſo as a man would take it for a Turnep) and covered over with a blacke rind: it groweth in ſhadowie places. Our countreymen here in Italie call it in Latine Tuber terræ, that is to ſay, The knur or bunch of the ground. Sowne and planted it would be in every garden about an houſe, if ſo be it be true that is reported of it; namely, That whereſoever it groweth, it is as good as a countrecharme againſt all witchcraft and ſorceries: which kind of defenſative is called properly Amuletum. Moreover, this root (they ſay) if it be put into a cup of wine, turneth the braine preſently,
E and maketh as many drunke as drinke therof. For the better keeping and preſerving of this root, it muſt be ordered after the manner of Squilla or Sea onion roots, that is to ſay, cut into thin ſlices or roundles, then dried, and ſo laid up: the ſame alſo is uſually ſodden to the conſiſtence or thickneſſe of hony. As good as this root is in thoſe former reſpects, yet it is not without ſome venomous qualitie; for it is commonly ſaid, That if a woman with child chaunce to ſtep over it, ſhe will fall preſently to labour before her time, and looſe the fruit of her wombe. A ſecond kind of Cyclaminus or Swinebread I find, ſurnamed by the Greeks * Ciſſanthemos, growing with ſtems full of knots or joynts, hollow within and good for nothing; far different from the former, winding & claſping about trees; bearing berries much like to thoſe of Ivie, but they are ſoft; a white
F floure faire and lovely to ſee too, but a needleſſe root for any goodneſſe in it: the berries that it beareth be only in uſe, and thoſe are of a ſharpe and biting taſt, and yet they be viſcous & clammie to the tongue: theſe being dried in the ſhadow and ſtamped, are afterwards reduced into certain balls or troſches. My ſelfe have ſeen a third kind alſo of Cyclaminos, carrying the name beſides of Chamæciſſos, which brought forth but one only leafe: the root was much forked and divided into branches, wherwith folke uſed to kill fiſhes. But among all other hearbs of name, Peucedanum is much talked of and commended: principally, that which groweth in Arcadie: next

* Some take it to be the Clot bur, or Butterbur.

* κισσανθεμος, *Dioſcor. id eſt,* Leafed like to Ivie.

to it, moſt account is made of that in Samothrace: a ſlender ſtalke it carrieth and a long, reſembling the ſtem of Fennell: neare unto the ground it is repleniſhed well with leaves: the root is blacke, thicke, full of ſap, and of a ſtrong and unpleaſant ſmell: it delighteth to come up and grow among ſhadie mountains. The proper time to dig it out of the ground, is in the latter end of Autumne: the tendereſt roots and thoſe that run deepeſt down into the earth, are moſt commendable. The manner is to cut theſe roots overthwart into certain cantels or peeces of foure fingers in length, with knives made of bone; wherout there iſſueth a juice which ought to be dried and kept in the ſhade: but the partie who hath the cutting of them, had need firſt to annoint his head all over and his noſthrils with oile roſat, for feare of the gid, and leaſt he ſhould fall into a dizzineſſe or ſwimming of the braine. There is another juice or liquor found in this plant, lying faſt within the ſtems thereof; which they yeeld forth after inciſion made in them. The beſt juice is knowne by theſe marks; It carieth the conſiſtence of honey, the colour is red, the ſmell ſtrong and yet pleaſant, and in the mouth it is very hote and ſtinging. Much uſe there is of it in many medicines, as alſo of the root and decoction thereof: but the juice is of moſt operation; which being diſſolved with bitter almonds or rue, people uſe to drinke againſt the poiſon of ſerpents; and in caſe the bodie be annointed all over with oile, it preſerveth them ſafe againſt their ſtings. G H

Chap. X.

Of ground Elder or Wallwort. Of Mullen or Taper-wort. Of the Aconit called Thelyphonos. Of remedies againſt the pricke of Scorpions, the venome of Hedge-toads, the biting of mad Dogs: and generally againſt all poyſons.

I

*Sauge de bois.

THe ſmoke or perfume alſo of Walwort (a common hearbe and known to every man) chaſeth and putteth to flight any ſerpents. The juice of *Polemonia, is a proper defenſative eſpecially againſt ſcorpions, if one have it tied about him or hanging at his necke: likewiſe it reſiſteth the pricke of the ſpiders Phalangia, and any other of theſe venomous vermins of the ſmaller ſort. Ariſtolochia hath a ſingular vertue contrarie unto ſerpents: ſo hath Agaricke, if foure oboli thereof be drunke in as many cyaths of ſome artificiall or compound aromatized wine. Vervaine is a ſoveraigne hearbe alſo againſt the venomous ſpider Phalangium, being taken in wine or oxycrat, that is to ſay, vinegre and water: ſo is Cinquefoile, and the yellow Carot.

That hearb which the Latins call Verbaſcum, *i.* Lungwort or Hightaper, is named in Greeke Phlomos. Two ſpeciall kinds there be of it: the one is whiter, which you muſt take for the male; the other black, and that may go for the female. There is a third ſort alſo, but it is found no where but in the wild woods. The leaves of all the former, be broader than thoſe of the Colewort, and hairie withall: they beare a maine upright ſtem, a cubit in heigth with the vantage: the ſeed is black and of no uſe in Phyſick: a ſingle root they have, of a finger thickneſſe. Theſe grow alſo upon plains and champion grounds. The wild kind beareth leaves reſembling Sauge: the branches be of a woodie ſubſtance, & the ſame grow high. There be moreover of this kind two other herbs named * Phlomides, both of them hairie; their leaves be round, and they grow but low. A third ſort there is beſides, named by ſome Lychnitis, and by others Thryallis: it ſheweth three leaves or foure at the moſt, and thoſe be thicke and fat, good to make wieks or matches for lights. It is ſaid, that if figs be kept in the leaves of that which I named the female, they will not rot. To diſtinguiſh theſe hearbs into ſeverall kinds, is a needleſſe peece of worke, conſidering they agree all in the ſame effects: their root togither with rue, is to be drunke in water againſt the poiſon of ſcorpions: true it is, that the drinke is very bitter, but the effect that it worketh maketh amends.

* Some take theſe for the Cowſlip and Primroſe.

K L

*Aconitum Pardalianches, Libard-baine.

There is an hearbe called by ſome *Thelyphonon, by others Scorpion, for the reſemblance that the root hath to the Scorpion; and yet if ſcorpions be but touched therewith, they will die thereupon: no marveile therfore if there be an ordinarie drinke made of it againſt their poiſon: [and here commeth to my mind that which I have heard, namely, that if a dead ſcorpion be rubbed with the white Ellebore root, it will revive and quicken againe.] The ſaid Thelyphonon hath ſuch a ſpightfull nature againſt the four-footed beaſts [of the female ſex] that if the root be laid unto their ſhap or naturall place, it killeth them: and if the leafe, which is like unto the Cyclamin or Sowbread leafe above-named, be applied in that manner, they will not live one day to an end. This hearbe is parted and divided into knots or joynts, taking pleaſure to grow in coole and ſhadie places. To conclude and knit up theſe remedies againſt ſcorpions; the juice of Betonie, and

M

of

A of Plantaine likewiſe, is a ſingular remedie for their poiſon.

Moreover, Frogs (ſuch eſpecially as keepe in buſhes and hedges, and be called in Latine Rubetæ, *i.* Toads) are not without their venom: I my ſelfe have ſeen theſe vaunting Montebanks calling themſelves Pſylli, as comming from the race of thoſe people Pſylli who feared no kind of poiſon; I have ſeen them (I ſay) in a braverie (becauſe they would ſeeme to ſurpaſſe all others of that profeſſion) to eat thoſe toads baked red hot between two platters; but what became of them? they caught their bane by it, and died more ſodainly than if they had ben ſtung by the Aſpis: but what is the helpe for this ranke poiſon? ſurely the hearb *Phrynion drunke in wine. Some call it Neuras, others Poterion: prettie flours it beareth: the roots be many in number, full of ſtrings like unto ſinews, and the ſame of a ſweet and pleaſant ſent. Likewiſe Aliſura is counted another re-

B medie in this caſe: an herb it is, called by ſome Damaſorium, by others Lyron: the leaves might be taken for Plantaine, but that they be narrower, more jagged and plaited, bending alſo toward the ground; for otherwiſe ribbed they be and full of veins, as like as may be to Plantaine. As for the ſtalke, it is likewiſe one and no more, plain and ſlender, of a cubit in heigth; in the head wherof it hath knobs; roots growing many and thicke togither and thoſe but ſmall, like unto thoſe of the blacke Ellebore, but they be hot and biting, of a ſweet and odoriferous ſmell, and of a fattie ſubſtance withall: it groweth ordinarily in waterie & moiſt places. And yet there is a ſecond kind of it which commeth up in woods, of a more duskiſh and blacker colour than the former, bearing bigger leaves. The root of them both is of ſingular operation againſt the venomous frogs or toads aboveſaid: alſo againſt the Sea-hare, if it be taken in wine to the weight of one dram. And

C ſince we have mentioned the Sea-hares, take this withall, That Cyclaminos alſo is ſoveraigne againſt their venome. Moreover, a mad dog letteth in a daungerous poiſon by the wound that his tooth maketh, againſt which there is not a better thing than dog-roſe of the Eglantine called Cynorrhodon, as I have before declared. Plantaine is a ſingular hearb againſt the biting of any venomous beaſt whatſoever, whether it be taken inwardly in drinke or outwardly applied. Betonie is likewiſe good therefore if it be drunke in old wine. Vervain, which the Greeks call Periſtereos, is an hearb bearing one main ſtalke of a good heigth, furniſhed well with leaves, ſpreading forth toward the head into other braunches, much ſought unto by doves and pigeons, whereupon it tooke the foreſaid name Periſtereos. They ſay, whoſoever carie this herb about them, there dare not a dog bark at them. Thus much as touching the dangers proceeding from venimous beaſts.

D What remaineth now but in the next place, to treat as well of ſuch ſorceries and maleficiall poiſons, as men have deviſed and practiſed to the miſchiefe of their owne kind, as of their remedies? where in the firſt place there preſenteth it ſelfe unto us that noble herb Moly, ſo much commended by the Poët *Homer*, as a ſoveraigne preſervative not only againſt all thoſe wicked inventions, but alſo againſt the ſecret and deviliſh practiſes, to wit, charms & enchantments, wrought by Art magick and witchcraft. Next unto which, the hearbs *Mithridation, Scordotis, and Centaurie: alſo the ſeed of Betonie drunke in honied wine or ſweet cuit: the powder alſo of the dried hearb it ſelfe, to the weight of one dram taken in foure cyaths of old wine, doth expell out of the bodie and evacuat by the ſeege any poiſon whatſoever; but the Patient muſt be forced to vomit up the firſt potion, and then to recharge againe and take another draught of the foreſaid medi-

E cine. And verely it is a common ſpeech, That whoſoever uſe to taſt everie day a little of Betonie, ſhall never catch harme by any poiſoned cup. If a man or woman chance to have drunke downe any poiſon, the root of Ariſtolochia is a preſent remedie, uſed in that order as I have preſcribed before in caſe of ſtinging by venomous ſerpents. The like effect hath the juice of Cinquefoile. Semblably Agaricke, if it be taken to the weight of one denier Roman in three cyaths of honied water or mead, is of the ſame operation; with this charge, That the partie do lay up his ſtomacke or caſt before. There is an hearb called Calves-ſnout, in Greeke Antirrhinon or Anarrhinon, a kind of wild Lychnis like unto Line or Flax, with little or no root at all, carrying a floure reſembling the Hyacinth or Crowtoes, and the ſeed much like unto a Calves ſnout or muzzle: The Magicians have a great opinion of this hearb, That whoſoever be rubbed all over with it, or an-

F nointed throughly with the juice thereof, ſhall looke more beautifull, lovely, and amiable: and whoſoever weareth it in a bracelet about the wreſt or arme, ſhall take no harme by charme, ſorcerie, witchcraft, or poiſon. The like conceit they have of another hearb called *Euploea; and they affirme, That if any man or woman be annointed therewith, they ſhall grow in great credit and reputation with the people. Moreover, they ſay, that the herb Artemiſia or Mugwort will preſerve

* Some take it for *Ruta muralis*, or *Salvia vita*, a kind of Saxifrage, or rather Maiden-haire.

* Whereof he writeth in the beginning of the ſixt chapter of this booke.

* *Euploea* in deed ſignifieth in *Homer*, a bon-voiage, or proſperous navigatiõ: but what is that to this place? No doubt *Plinie* ſhould have read in *Theophraſtus* εὐκλειὰ, which is no hearb, but the happineſſe of a good name among men, whereof *Plinie* ſpeaketh here; & which *Theophraſtus* attributeth to Antirrhinon, as one of the effects of that hearb. But lay the fault (I pray you) as well here as elſewhere, upõ *Plinies* Anagnoſts or Readers, who either read wrong or pronounced not their words diſtinctly and plainly unto him.

all thoſe who have it about them, from witchcraft, ſorcerie, and poiſon, from daunger by venomous beaſts, yea and from the hurtfull and maligne aſpect of the very Sun. The ſame, if it be taken in wine, helpeth and ſaveth thoſe that are poiſoned with Opium: being either drunke, or worne about the necke, or but tied to any part of the bodie, it hath a peculiar vertue againſt the venome of todes. There is an hearbe of the bulbous or onion-root kind named * Pericarpum: whereof be two ſorts, the one hath a red barke or rind [about the root;] the other a blacke, and is like unto the poppie: of greater operation this is, than the former; but both of them be very hot: which is the reaſon, they ſerve to good purpoſe for to be given unto them that have drunk hemlocke: againſt which venomous hearbe, Frankincenſe, and Panaces (eſpecially that which they call Chironium) be counted ſingular: and this Panaces alſo laſt named, is an excellent antidot for them that are poiſoned with venomous muſhroms. G H

* So called, becauſe the fruit claſpeth round about the ſtem or ſtalke of the hearbe.

Chap. xi.

Proper receits and remedies for the diſeaſes of the head.

SInce we are waded ſo far into the deepe ſecrets of Phyſicke, it will not be amiſſe to proceed forward and to ſet downe many good medicines for all the maladies incident either in generall to the whole bodie, or particularly to every ſpeciall part and member therof, beginning firſt at the head.

There is an unſeemely accident happening otherwhiles to the head, and diſgraceth it much, called * Alopecia, when as the haire unnaturally falleth off. The cure of this inconvenience, is to make a liniment with the roots of Nymphæa and Hemlocke ſtamped togither, and therewith to annoint the bald and naked places, for it will cauſe the haire to come up again and grow thick. Polytricha and Callitrica [both capillare herbs] differ one from another; for that Polytrica hath white bentie filaments or threads, the leaves alſo be more in number & greater withall: beſides, the verie plant it ſelfe ſpreadeth and brauncheth more than the other: This hearbe is ſingular to faſten the haire of the head at the root, and to make it buſh and grow thicke, beeing otherwiſe readie to ſhed. In like manner, there is an hearbe called in Latine * Lingulaca, which loveth to grow about ſprings or fountains, and is ſingular for the ſame imperfection of ſhedding haire, if the root togither with the leafe burnt and beaten to powder, be incorporat with the greaſe of a blacke ſow (but in any wiſe ſhee muſt be a young guilt that never farrowed or had pigs) and ſo brought into a liniment, and the head rubbed and annointed therwith: with this charge beſides, That after the annointing, the Patient ſit bareheaded in the ſun; for that helpeth forward the cure very much. And in the ſame caſe there is the like uſe of the Cyclamine or Sowbread root. I K

* Becauſe foxes are much ſubiect unto it, who are called in Greeke *Alopekes.*

* *Capillus Veneris*, or Maiden-haire.

* Adders-tongue.

Touching the ſcurfe or brannie ſcales called Dandruffe, the root of Veratrum or Ellebore, ſodden either in oile or water, maketh a moſt excellent medicine to rid it away, and to cleanſe the head thereof.

As for head-ach, the roots of all the kinds of Panaces, ſtamped and tempered with oile, doe cure the ſame: ſo doth Ariſtolochia and Iberis, if they be applied in manner of a frontall and bound to the forehead, the ſpace of an houre or longer if the Patient can abide it, ſo that a bath be uſed preſently upon it. The yellow Carot alſo called in Latine Daucum, is a good remedie for the paine in the head. Moreover, the foreſaid hearbe or root Cyclaminos, if it bee mixed with hony and put up as an errhin or naſall into the noſthrils, purgeth the brain: & the ſame brought into an ointment, healeth the ſcalls and ſores in the head. Of the like operation is Vervain, which they call in Greeke Periſtereos. The wild Caraway, named Cacalia or Leontine, beareth certaine graines reſembling ſmall ſeed-pearls, which a man ſhall ſee hanging betweene the leaves, which be big and large, and it groweth lightly upon hills: take fifteene of thoſe grains or ſeeds, ſteepe them well in oile, and make thereof a liniment, it is paſſing good to rub and annoint the head withall, ſo it bee done upward againſt the haire. Furthermore, the hearbe Callitriche, is ſingular good to provoke ſneezing: it beareth leaves much like unto thoſe of Lentils or Ducks-meat: the ſtalkes be verie ſmall like fine bents, and the root is as little: it delighteth to grow in coole, ſhadie, and moiſt grounds, and is of a ſharpe and hot taſt. L M

For the lowſie diſeaſe, wherein lice and ſuch vermin crawle in exceeding abundance all over the head, there is not a better medicine than an ointment made of hyſſope and oile ſtamped and incorporat togither: the ſame likewiſe killeth the itch in the head. Now the beſt hyſſope is

that

A that of Cilicia, growing upon the mountaine Taurus: and in a ſecond degree, there is reckoning made of that which commeth out of Pamphylia and Smyrna. An hearb this is, nothing friendly to the ſtomacke: being taken with figs, it purgeth downward; with honey, by vomit: howbeit, ſtamped with honey, ſalt, and cumin, and ſo reduced into a plaſtre, it is thought to be a proper remedie for the ſting of ſerpents.

Lonchitis is not the ſame hearbe (as moſt men have thought) that Xiphion or Phaſganion, although the ſeed be pointed like to a ſpeare head; for it beareth leaves reſembling leeke blades, which toward the root bee red, and more in number than about the ſtem it ſelfe: it carrieth little heads in the top, made after the faſhion of maskes or viſors, ſuch as players in Comœdies are woont to weare, lilling out prettie little tongues, and the roots bee exceeding long, and yet it
B groweth in drie grounds far from water. Contrariwiſe, * Xiphion or Phaſganion delighteth in wateriſh and moiſt places: at the firſt comming up, it maketh a ſhew of a ſword-blade: the ſtem ariſeth up to the heigth of two cubits: the root hath beards or fringes as it were hanging about it, and is in faſhion ſhaped to a filberd nut: which ought to be digged out of the ground before harveſt, and to be dried in the ſhade: the upper part of this root (for it groweth double) ſtamped with frankincenſe and mixed with wine of equall weight, and ſo made into a ſalve, draweth out the ſpills or broken skales in the braine-pan or ſcull: the ſame is good likewiſe to draw any impoſtume that is broken, and to fetch out corruption in any part of the bodie: and it is ſingular for the bones that be broken and cruſhed * under cart or waggon wheels: laſtly, the ſame is an effectuall remedie againſt poiſons.

* Our Glader or Flags.

* *Carpentis.*

C But to returne againe to the head-ach; the ſaid Ellebore boiled either in common oile, or els in oile roſat, and applied in manner of a liniment, doth aſſuage the ſame; ſo doth Peucedanum, [*id eſt*, Har-ſtrange] being incorporat in oile of roſes and vinegre. The ſame alſo beeing laid unto the head warme, doth mitigat the paine called the migraine, when as the one halfe of the head doth ake; and it cureth beſide, the dizzineſſe of the braine. The root of Peucedanum made into an ointment and uſed accordingly, provoketh ſweat, by reaſon of the hote nature that it hath, which is burning and cauſticke. The hearbe Fleawoort, which ſome call Pſyllion, others Cynoïdes, Chryſtallion, Sicelion, and Cynomyia, hath a ſmall root, whereof there is little or no uſe in Phyſicke. The braunches that it bringeth foorth, be ſlender and pliable in manner of vine ſhoots, bearing in the top certain big berries or knobs like unto beans; the leaves not un-
D like to * dogs heads; the ſeed reſembleth dogs fleas, whereupon it hath that name Cynomyia, and the ſame lieth within the foreſaid berries. The hearbe it ſelfe is ordinarily growing in vineyards: of great vertue it is to refrigerat and to diſcuſſe or reſolve withall: but the ſeed it is which yeeldeth moſt uſe in Phyſicke; and the ſame is applied in a frontall to the forehead and temples, with vinegre and oile of roſes, or elſe with vinegre and water togither, for to allay the pain of the head. For other accidents, when it is applied in forme of a liniment, the manner is to take the meaſure of one acetable, and to infuſe it in a ſextar of water untill it gather togither into a thicke and clammie ſubſtance; then it would be ſtamped, and the mucilage or ſlime drawn out thereof ſerveth for any paine, impoſtume, and inflammation. Over and beſides, Ariſtolochia is a ſingular hearbe for the wounds of the head: it draweth foorth broken bones and ſpills
E in any part of the head; and ſo doth Piſtolochia. To conclude, there is an hearbe called * Thyſſelium, not unlike to garden Perſley: the root whereof if it be but chewed in the mouth, purgeth the head of phlegmaticke humors.

* Whereupon it is called *Cynoïdes.*

* *Hydroſelynum, Dodonæi, id eſt*, Water perſley.

Chap. XII.

Receits for the diſeaſes of the eyes, made of Centaurie, Celendine, Panaces, Henbane, and Euphorbium.

IT is thought that the Rha-ponticke (which is the greater Centaurie) helpeth the eye-ſight verie much, if a fomentation be made therewith and water togither. The juice of the leſſe Cen-
F taurie tempered with honey and applyed, helpeth the imperfections of the eyes, namely, when there ſeeme gnats to flie before them, or when they are over-caſt with a clowd; for it ſcattereth the dimneſſe and web which darkeneth the ſight and doth ſubtiliat the cataract or cicatrices that overgrow the ball or apple. The hearbe Sideritis is ſo appropriat unto the eyes, that it cureth the very haw that groweth in horſes eyes. But ſo excellent is the herb Celendine, that it

passeth them all, and is a soveraigne medicine for all such imperfections. The root of Panaces G
mixed with parched or fried barly meale, maketh a good cataplasme for to represse the rheume
of waterie and weeping eies. And there is a singular drinke commended for the staying of such
humors, made of henbane seed one obolus, of Opium or the juice of poppie and wine as much:
Some put thereto the like quantitie of the juice of Gentian, which also they used to mingle with
collyries and eye-salves (that require some sharpenesse and acrimonie) * in stead of the foresaid
Opium or poppie juice. Moreover, Euphorbium clarifieth the eye-sight, if there be an inunction
made therewith. For bleered eyes, it is good to drop the juice of Plantaine into them. As for the
thicke mists that hinder the eye-sight, Aristolochia doth discusse and resolve them. The hearbe
Iberis bound unto the forhead, togither with Cinquefoile, stoppeth the fall of humors into the
eyes, and cureth all other maladies incident unto them. Mullen or Lungwort is likewise a great H
defensative against the foresaid rheums which have taken a course to the eies and cause them to
water: so doth Vervain, if it be applied with oile rosat or vinegre. For the cataract or suffusion of
the eies, for the pin and web which offend the eye-sight, the Troches of Cyclamine beeing dis-
solved and so applied, are soveraigne. As for the juice of Peucedanum (that is to say, Har-strange)
it is (as I said before) a notable medicine for to cleare the sight, and rid away the muddie mists
before the eies, if it be laid too with Opium and oile rosat. Finally, Flea-wort staieth and keepeth
up the flux of humors into the eyes, if the forehead be annointed with the mucilage thereof.

*Pro Meconio: and yet in Dioscorides it is μετὰ μυκανίς.

Chap. XIII.

Of Pimpernell, named Anagallis and Corchoros. Of Mandragoras or Circeium. Of Hemlocke, Creſtmarine or Sampire, named in Greeke Crithmos agria. Of the hearbe Molybdæna. Of Fumiterre. Of Acorus or Galangale. Of Floure-de-lis. Of Cotyledon or Venus navill. Of Sengreene, and Purcellane. Of Groundſwell. Of Ephemeron. Of the Taxill, and of Crowfoot: with the medicinable vertues of the ſaid hearbs, appropriat to the diſeaſes of eyes, ears, noſthrils, teeth, and mouth. I

THe hearbe Pimpernell, some call Anagallis, others Corchoros. Of it be found two kinds; the male with a red floure, the female with a blew: neither of them both be taller than the hand-breadth or a span at most: tender they be likewise in all parts: the leaves be very small, round, and lying upon the ground: they grow as well the one as the other in gardens and waterie K
places: that with the blew floure bloweth first: the juice of them both tempered with honey, dispatcheth the mist and dimnesse of the eies, consumeth the rednesse occasioned by a stripe or bruise, and taketh away the red spots in the white of the eye; and so much the sooner, if the hony be of the best and made about Athens, wherewith the eyes be annointed. The said medicine likewise is good for to extend and dilate the tunicles that make the ball or apple of the eye: and therefore it is an ordinarie course that their eyes be annointed therewith beforehand, who are to be pricked with a needle for couching of a cataract. These hearbs be singular good likewise for the haw in horses or beasts eies. The juice of Pimpernell conveighed up into the nosthrils, cleanseth the braine by the emunctorie of the nose, so that afterwards the Patient doe draw up wine into the nosthrils for a collution to wash them. A dram of the said juice drunke in wine, is a coun- L
trepoison against the venome of snakes. But this is strange, and I cannot chuse but marveile of it, that sheepe should so much hate and abhor the female Pimpernell as they doe: howbeit, in case they should mistake the one for the other because they are so like (for in floure onely they differ) and tast the Pimpernell with the blew floure, presently they have recourse (by a naturall instinct) to an hearbe for remedie called in Greeke Asyla, and by us in Latine Ferus oculus, [*i.* the wild and cruell eye, or Margellane.] Some there be, who set downe certaine ceremonies and circumstances to be observed by them who are to dig or plucke up this hearbe, namely, That they goe to this businesse before the sunrising, and salute or bid good morrow to it three time, before they speake any other word that morning; and then to take it up and cast it on high: which done, to presse forth the juice of it. Thus ordered forsooth, they say it is of better operation, and will do M
the deed surely.

Touching Euphorbium, what it is I have sufficiently spoken. The juice thereof is singular for bleered eyes, especially if they be swelled withall: likewise wormewood stamped and incorporat with honey: as also the powder of Betonie. There groweth many times a fistulous ulcer be-

tweene

A tweene the corner of the eye and the noſe, called Ægilops; for to heale which ſore, there is a ſoveraigne hearbe of that *name growing among Barley: In blade or leafe it reſembleth that of Wheat: the ſeed or graine whereof, beaten into pouder and mixed with meale or flower, or the juice drawne out of the hearbe, they uſe for the ſaid purpoſe to applie unto the affected place in manner of a ſalve or liniment. Now the ſaid juice muſt bee preſſed out of the ſtalke and leaves thereof, whiles they bee freſh and fulleſt of ſap: but then the haw or eare that it beareth, ought to be taken away, which beeing incorporat with the flower of three-month corne, is made up into bals or troſches. Some were wont in this cure to uſe the juice alſo of Mandragoras, but they gave it over afterwards. Howbeit, for certaine, the root of Mandragoras bruiſed or ſtamped, and tempered with the oile of roſes and wine, cureth weeping and watering eyes, yea, and aſſuageth their
B pain: and the ſaid juice, howſoever it be rejected in the former caſe, goeth into many collyries or eyeſalves.

This hearb Mandragoras, ſome writers call Circeium; and two kinds there be of it: the white, which is ſuppoſed the male; and the black, which you muſt take for the female. The leaves of this female reſemble thoſe of the *Lectuce, but that they be narrower: hairie alſo they are, and all of an*equall bigneſſe. Two or three roots it hath, and thoſe of a reddiſh or ruſſet colour without, but white within: of a fleſhie ſubſtance and tender, running downe into the earth almoſt a cubit in length. A certaine fruit or apple they beare, of the bigneſſe of Filberds or Hazel-nuts, within which there be ſeeds like unto the pippens of Peares. The white Mandrage ſome name Arſen, that is to ſay, the male; others *Morion: and there be again who call it Hypophtomos. The white
C leaves of this Mandrage bee broader than the other, and in deed equall to the garden Docke or Patience. In the digging up of the root of Mandrage, there are ſome ceremonies obſerved: Firſt they that goe about this worke, look eſpecially to this, that the wind be not in their face, but blow upon their backes: then, with the point of a ſword they draw three circles round about the plant: which done, they dig it up afterwards with their face into the Weſt. There is a juice preſſed forth both of the fruit, and alſo of the leaves ſhred and minced; of the*ſtem likewiſe being firſt headed or the top cut off; and alſo of the root, which ſometime they do pounce and pricke for to let out the liquor, otherwhiles they boile it: and the root ſo prepared, it as good as the juice. The ſame alſo being cut into certaine thin rundles they uſe to*preſerve in wine. Howbeit, Mandrage is not found alwaies & every where full of juice: but in what place ſoever ſuch may be gotten, the right
D ſeaſon to ſeeke for it is about Vintage time: the ſent thereof is ſtrong, but the root and fruit doe ſmell the ſtronger. The apples of the white, when they be ripe, the manner is to drie in the ſhaddow: but the juice drawne out of them, is permitted to ſtand in the Sunne for to gather and harden. In like ſort, the juice of the root whether it bee bruiſed and ſtamped, or ſodden in groſſe red wine to the conſumption of a third part. The leaves moreover of Mandrage are commonly kept and condite in a kind of pickle or ſalt brine: for otherwiſe the juice of them whiles they bee freſh and greene, is peſtiferous and a very poyſon. And yet order them ſo well as you can, hurtfull they bee every way: the onely ſmell of them ſtuffeth the head, and breedeth the murre and the poſe. Howbeit, in ſome countries they venture to eat the apples or fruit thereof: but thoſe that know
E not how to dreſſe and order them aright, looſe the uſe of their tongue thereby, and prove dumbe for the time, ſurpriſed and overtaken with the exceeding ſtrong ſavour that they have. And verely if they bee ſo bold as to take a great quantitie thereof in drinke, they are ſure to die for it. Yet it may be uſed ſafely ynough for to procure ſleepe, if there be a good regard had in the doſe, that it be anſwerable in proportion to the ſtrength and complexion of the patient: one cyath thereof is thought to be a moderat and ſufficient draught. Alſo it is an ordinarie thing to drinke it againſt the poyſon of ſerpents: likewiſe, before the cutting, cauterizing, pricking or launcing of any member, to take away the ſence and feeling of ſuch extreame cures. And ſufficient it is in ſome bodies to caſt them into a ſleepe with the ſmell of Mandrage, againſt the time of ſuch Chirurgerie. There be that drinke it in lieu of Ellebore, for to purge the bodie of melancholicke humours, taking two oboles thereof in honied wine. Howbeit, Ellebore is ſtronger in operation for to evacuat blacke choler out of the bodie, and to provoke vomit.
F

As touching Hemlocke, it is alſo a ranke poyſon, witneſſe the publicke ordinance and law of the Athenians, whereby malefactors, who have deſerved to die, were forced to drink that odious potion of Hemlocke. Howbeit, many good vertues hath this hearbe, and would not bee rejected and caſt aſide for the ſundrie uſes therof in Phyſick. The ſeed is every way hurtfull and venomous.

As

*Ægilops. Some take it for wild Otes, others for Darnell.

*Whereupon it is called *Thridacias.*

*Æqualibus, not *caulibus*, for Mandrage beareth no ſtems.

**i. Membrum virile vel Genitale.*

* Other Herbariſts deſcribe Mandrages without a ſtem or ſtalke.

**Servatur in vino*; according to *Crateuas*, ἐν ὄξει ἕψῳ, whereas *Dioſcorides* ſaith ἐναβληθεὶς λίνῳ, *i traijcitur lino*, that is to ſay, they file them up hanging by little threads drawn through them.

As for the ſtems and ſtalkes, many there be that doe eat it both greene and alſo boiled or ſtewed between two platters. Light theſe ſtems be as kexes, and full of joints like Reeds and Canes: of a darke gray or ſullen colour, riſing up many times above two cubitss high: and toward the top they ſpread and braunch. The leaves in ſome ſort reſemble Coriander, but that they be more tender, and a ſtrong ſtinking ſmell they have with them. The ſeed is thicker and groſſer than that of the Anniſe. The root likewiſe hollow, and of no uſe at all in Phyſicke. The leaves and ſeed both are exceeding refrigerative: which if they have gotten the maiſtrie and upper hand of any that hath taken them, ſo as there is no way but one without helpe, they ſhall feele themſelves begin to wax cold in their extreame or outward parts, & ſo to die inward. Howbeit there is a remedy even then, before the cold have taken to the vitall parts: namely to take a good draught of wine, which may ſet the bodie in a heat, and chaufe it againe: mary if they drinke it with wine, there are no means in the world to ſave their lives. There is a juice preſſed out of the leaves & flowers both together: for that is the right reaſon, namely whiles it is in floure. That which is preſſed out of the ſeed ſtamped, being afterwards dried in the Sunne and made into bals or troſches, killeth them that take it inwardly by congealing and cluttering their bloud: for this is a ſecond venomous and deadly qualitie that it hath: which is the cauſe, that whoſoever die by this means, there appeare certain ſpots or ſpecks in their bodies after they bee dead. And yet there is a uſe of this juice, to diſſolve hot and biting medicines therein in ſtead of water: moreover, there is made of it a very convenient cataplaſme to be applied unto the ſtomacke, for to coole the extreame heat thereof. But the principall vertue that it hath, is to repreſſe and ſtay the flux of hot humors into the eies* in Summer time, and to aſſuage their paines if they be annointed therewith. It entreth beſides into collyries or medicines deviſed to eaſe paine: and verely there is no rheumaticke flux in any part of the bodie but it ſtoppeth it. The leaves alſo of Hemlocke doe keepe downe all tumours, appeaſe paines, and cure watering eyes. *Anaxilaus* mine author ſaith, That if a pure maiden doe in her virginitie annoint her breaſts with this juice, her dugs will never grow afterwards, but continue ſtill in the ſame ſtate. True it is indeed, that being kept unto the paps of women in child-bed, it drieth up their milke: as alſo extinguiſheth naturall ſeed, if the cods and ſhare bee annointed therewith. What remedies they ſhould uſe to ſave themſelves who are adjudged by law to drink it, I for my part purpoſe not to ſet downe. The ſtrongeſt Hemlocke and of ſpeedieſt operation is that which groweth about Suſa in the confines of Parthia. Next to it for fearefull working, is that which commeth out of Laconica, Candie, and Natolia. In Greece the Hemlocke of Megara is counted the quickeſt, and then that of Attica.

*Epiphoras æſtivas, or rather æſtuoſas, i. hot rheumes,

Creſtmarine or Sampier, called the wild Cuthmos, riddeth the eyes of the gummie & viſcous water that ſticketh in them, if it be applied thereto: and if it be made into a cataplaſme with fried Barley meale, it aſſuageth alſo their ſwelling.

There groweth commonly an hearbe named in Greeke Molybdæna, that is to ſay in Latine, Plumbago, even upon every corne land; in leafe reſembling the Docke or Sorrell, with a thicke root, and the ſame rough and prickie. Let one chew this hearbe firſt in his mouth, and then eftſoones licke with his tongue the eye, it conſumeth and taketh away the *Plumbum, which is a kind of diſeaſe or infirmitie incident to the eyes.

*Some take it for a Cataract.

As touching the firſt* Capnos, which in Latine is commonly called Pedes Gallinarei, *i.* Hens feet: it groweth about decaied walls and ruinat buildings, among rubbiſh, and in hedges: the branches bee very ſmall, and ſpread looſely or ſcattering, the flower of a purple colour, the leaves greene, the juice wherof diſcuſſeth the dimneſſe and thickneſſe about the eyes, and clarifieth the ſight: and therefore it is uſually put into eyeſalves. There is another hearbe of the ſame *name, and like in effect, but different in forme from it, which dooth braunch thicke, and is of a tender ſubſtance: the leaves for ſhape reſembling Coriander, and thoſe of a wan or aſhie colour, but it beareth a purple flower: It groweth in Gardens, Hort-yards, and Barley lands. If the eyes bee therewith annointed, it cleanſeth and cleareth them: but it cauſeth them to weepe and water, like as ſmoke doth, whereupon it tooke the name Capnos in Greeke. If the haire of the eye-lids be once pulled forth, and then the edges or brims be annointed therewith, it will keepe them for ever comming up againe.

*This *Fuchſius* thinketh to be Piſtolochia or our Ariſtolochia the rounder.

*It ſeemeth to be our Fumitorie, called in Greek Capnos

*Galangale.

*Acornes hath leaves like to the Flour-de-lis, but that they be only narrower, & growing unto a longer ſtele or taile: the roots be blacke & not ſo full of veins nor grained, otherwiſe they agree well with the Ileos root, hot & biting at the tongues end. To ſmell unto they are not unpleaſant:

and

A and beeing taken inwardly, they doe gently move rifting, and cause the stomacke to breake wind upward. The best Acorne roots be those which come from Pontus: then they of Galatia: and in a third ranke are they to be set which are brought out of Candie. Howbeit, the principall and the greatest plentie are those esteemed which grow in the region Colchis neare to the river Phasis: and generally in what countrey soever, they that come up in waterie grounds be cheefe. The fresher that the roots be and more newly drawne, the stronger sent and lesse pleasant tast they have with them, than after they have been long kept above ground. Those of Candie bee whiter than the other of Pontus. They use to cut them into gobbets as big as a mans finger, and then hang them within bags or pouches of leather a drying in the shade. I find in certaine writers, that the root of Oxymyrsine is called Acaros; and therfore some (alluding to the name of Acoros) chuse
B rather to call this plant Acaron the wild. Well, the root of Acorus is of great operation and effect to heat and extenuat: and therefore the juice thereof taken in drinke, is singular against catarracts or any accidents of the eyes that cause dimnesse. Soveraigne likewise it is taken to bee against the venome of serpents.

Cotyledon, named in Latine Vmbilicus veneris, is a pretie little hearbe, having a tender and a small stem, a leafe thicke and fattie, growing hollow, like to the concavitie wherein the huckle-bone turneth, and thereupon it tooke the foresaid name in Greek. It groweth by the sea side and in rockie or stonie grounds: of a lively greene colour, and the root round, much like to an Olive. The juice is thought to cure the eyes. Another kind there is of Cotyledon, with grosse and *fat-
C tie leaves likewise, but broader than the former. Toward the root they grow thicker, which they seeme to compasse and enclose, as it were an eye. A most harsh and unpleasant tast it hath: the stem is high, but very slender. This hearbe hath the same properties which the Floure-de-lis.

Of Sengreene or Housleeke, which the Greekes call Arizoon, there be two kinds. The greater is ordinarily planted in earthen pans or vessels set out before the windows of houses: which some name Buphthalmon, others Zoophthalmon, and Stergethron, becaus it is thought so good in love-drinkes or amorous medicines: others againe give it the name Hypoglesson, for that it is seene to grow under the eaves of houses. There are also who love to tearme it Ambrosia & Amerimnos. Here in Italie they call it Sedum the greater, Oculus also, and Digitellus. For the second kind is somewhat lesse, which the Grecians distinguish by the name *Erithales or Trithales (be-
D cause it beareth flowers thrice in the yeare;) others Chrysothales; and some againe, Isoëtes. But both the one and the other they call Arizoon, because they bee alwaies fresh and greene: according to which name in Greeke, some give it the Latine name Sempervivum. The greater kind beareth a stem a cubit high and more, and the same of the thicknesse of a mans thumbe, with the better. The leaves in the head or top whereof, be like unto a tongue, fleshie and fat, full of juice, a good inch broad; some bending downe and coping toward the earth, others standing upright, but so, as if a man marke their round circle or compasse wherein they lie couched, hee shall observe the very proportion of an eye. The lesse Sengreen or Iubarbe groweth upon walls, and specially such as be ruinat and broken downe; likewise upon the tiles of house-rouses. This hearbe is tufted with leaves from the very root even to the top of the branches. The leaves be narrow and sharpe pointed, and full of juice. The stalke groweth a good handbreadth or span high. The root
E is not medicinable nor of any use.

Much like to this is that hearbe which the Greekes call Andrachne Agria, i. wild Purcellane; the Italians, Illecebra. The leaves bee but small to speake of, howbeit broader than those of the hearbe beforenamed, and shorter toward the top. It groweth upon rockes and stonie places: and folke use to gather it for to eat. All these last rehearsed have the same operation, for they bee exceeding cold and astringent withall. Good they bee to stay the rheume that falleth into the eyes and causeth them to water; whether the leaves be applied to them, or the juice in manner of a liniment: moreover, they cleanse and mundifie the ulcers of the eyes, they do also incarnat, heale and skin them up: singular good besides to loose and open the eye-lids, when they are glued and closed up with viscous gum. The same doe allay the head-ach, if either the temples be annointed
F with the juice therof, or the leaves be applied unto them. Moreover, they mortifie or kill the poyson inflicted by the pricke of the venomous spiders Phalangia: but the greater Sengreene hath this pecular vertue, to resist the deadly poyson of the hearbe Aconitum. Furthermore it is said, that whosoever carie it about them, shall not be stung by scorpions.

All the kinds of them are proper remedies for the paine in the eares. Like as the juice of Henbane

*λπαρῆις, out of *Dioscor.* not ἰσὰ παρῆις, as *Plinie* seemeth to read, when he translated it [*Sordidis.*]

*Which some take to bee Prick-madame of the French Trique-madame.

bane alſo, if it be applied moderatly; of Achillea and the beſt Centaurie; of Plantaine and Harſtrang, together with oile Roſat and Opium: finally, the juice of Acornes or Galangale uſed with Roſes, is much commended in that caſe. But this would be noted, that the manner of preparing of all theſe juices, is to heat them firſt, and then to conveigh or infuſe them into the ear by a *pipe for the purpoſe [called an Otenchyte.] Semblably, the hearbe Vmbilicus Veneris or Cotyledon is much commended for mundifying the eares, when they run with filthie matter eſpecially, if it be tempered with deare ſewet, and namely of a Stag or Hind, and ſo inſtilled hot. The juice of the Wallwort root clarified and ſtrained through a fine linnen cloth, and ſoone after dried and hardened in the Sunne, healeth the ſwelling impoſtumations under the eares, if as need requireth, it be diſſolved in oile of Roſes, and ſo applied hote. The like effect in that caſe hath Vervaine and Plantaine; Sideritis alſo being incorporat in old Hogs greaſe. H

*Silla.

After the ſame manner Ariſtolochia together with Cyperus, healeth the ſtinking and illfavored ulcer of the noſe, called Noli-me-tangere.

The root of Panaces, eſpecially that which is called Chironia, if it be chewed in the mouth, aſſuageth the toothach, ſo doth the juice thereof, if there bee a collution made therewith. The root of Henbane hath the like vertue, if one chew it with vinegre: as alſo of Polemonia or Sauge de bois: for which purpoſe it is paſſing good to chew the Plantaine root, or to waſh the mouth and teeth with the juice or decoction thereof boiled in vinegre. And the very leaves of Plantain be ſingular for the paine of the teeth: yea, though the gums were putrified with ranke and corrupt bloud, or in caſe there owſed or iſſued out of them filthie bloudie matter. And the ſeed of Plantaine cureth the impoſtumations of the gums, albeit they gathered to ſuppuration and ran matter. I Moreover, Ariſtolochia doth knit and conſolidat the gums, yea, and faſteneth the teeth in the head. For theſe infirmities of gums and teeth, the root of Vervaine is highly commended, if it be chewed: or if it bee boiled in wine or vinegre, and the mouth waſhed with that decoction. The roots of Cinque-foile ſodden likewiſe either in wine or vinegre to the conſumption of a third part, worke the ſame effect. But looke that before you boile them, they bee well rinced and waſhed either in ſea water or ſalt water at the leaſt: and when you uſe this collution, ſee you hold the liquor or decoction in your mouth a long time. But ſome there be who thinke it better to rub the teeth with the aſhes of Cinque-foile burnt, leaves, root, and all. Moreover, the root of Mullen or Taperwort ſodden in wine, maketh a ſingular collution for the teeth. Likewiſe, if the teeth bee waſhed with the decoction of Hyſſope or the juice of Harſtrang, together with Opium or Poppie juice, much good and eaſe will enſue thereupon. K As alſo by the juice of a Pimpernell root: and the rather of that which is counted the female, if the ſame bee conveighed up into the noſthrill of the contrary ſide to the tooth that aketh. There is an hearbe called Groundſwell, which the Greekes name Erigeron, and wee the Latines Senecio: they ſay if a man make a circle round about it with ſome inſtrument of yron, and then dig it out of the ground, and therewith touch the tooth that is pained, three ſeverall times, and betweene every touching ſpit upon the ground, and then beſtow the ſaid hearbe root and all in the very ſame place where hee drew it, ſo as it may live and grow againe, the ſaid tooth ſhall never ake afterwards.

This Groundſwell is an hearbe much like in ſhape to Germander, as ſoft alſo and tender as it, the ſmall ſtalkes or braunches whereof encline to a reddiſh colour: and it loveth to grow upon tiled houſes and walls. The Greekes impoſed that name Erigeron, becauſe in the Spring it looketh hoarie, like an old grey beard: in the top it devideth it ſelfe into a number of heads, betweene which there commeth foorth a light plume, much like to Thiſtle-downe: which is the reaſon that *Callimachus* calleth it Acanthius; and others, Pappos. But in the farther deſcription of this hearbe, it ſeemeth that the Greekes agreed not: for ſome ſaid that it is leafed like to Rocket, others to an Oke, but that they be much leſſe. There bee writers alſo who hold the root to bee good for nothing in Phyſicke: and there bee againe that commend it to be ſingular for the ſinewes: beſides, ſome others are of opinion, That it ſtrangleth and choaketh as many as drinke it. Contrariwiſe, certaine Phyſicians preſcribe it for the jaundiſe to bee taken in wine: for all the diſeaſes likewiſe of the bladder, and againſt the infirmities of the heart and liver: And they aſſure us, that it ſcoureth the reines or kidneies of all gravell. In caſe of the Sciatica they have ordained it to bee drunke to the weight of a dram with Oxymell, preſently after ſome exerciſe by walking: giving out, that there is not a better thing in the world for the gripes and tor-

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A ments of the guts, if it bee taken in ſweet wine cuit: eſteeming it a ſingular hearbe for the greeſe of the midriffe and precordiall parts about the heart, if it bee eaten with meat in a ſallad with vinegre: and in regard of theſe manifold commodities, they ſow and nouriſh it in their gardens for to bee alwaies readie at hand. And ſome authours I find who have made a ſecond kind thereof: but they have not deſcribed what manner of hearbe it is, onely they appoint it to be given in water againſt the ſting of ſerpents, and to be eaten for the falling ſickneſſe. For mine owne part, I will ſet downe the uſe thereof in ſome caſes, according as I have found it by experience to worke in the practiſe here at Rome. The plume or downe which it beareth, if it be ſtamped and reduced into a liniment with Saffron and a few drops of cold water, and ſo applied, cureth the inordinat flux of wateriſh humours into the eyes. The ſame dried and parched againſt the fire, or
B otherwiſe fried with ſome cornes of ſalt, and laid to the ſwelling wens called the Kings evill, healeth them.

The May-Lillie (called in Greeke Ephemeron) is leafed like unto the Lillie, but that the leaves bee leſſe: the ſtem is ſemblable and equall unto it, upon which it beareth a *blew flower. The ſeed which it carieth is nothing medicinable. One ſingle root it hath of a finger thickeneſſe, which is ſoveraigne for the teeth, if it bee cut and minced ſmall, and afterwards ſodden in vinegre for a collution to waſh the teeth with it warme. The very ſubſtance alſo of the root is ſingular good to confirme the teeth ſtanding looſe in the head: and to be put into thoſe that bee hollow and worme-eaten. Moreover, the root of Celendine is good for the teeth, if it bee bruiſed or ſtamped, and ſo with vinegre held in the mouth. If teeth bee rotten and corrupt, the blacke
C Ellebore is ſingular to bee put into their concavities. And both of them (as well the blacke as the white) ſerve in a collution to ſtrengthen and keepe them faſt in their ſockets, if they be boyled in vinegre. As touching the Tazill (which is called in Latine Labrum Veneris) it groweth in rivers and *waters: Within the heads or burres which it beareth, there is found a little woorme or grub, which for the toothach they uſe to bind about the teeth, or to put it in their holes, and cloſe them up with wax. But when that hearbe is pulled out of the ground, great heed muſt be taken that it touch not the earth. The hearbe Crow-foot is called in Latine Ranunculus, in Greeke Batrachion; whereof bee foure kinds, The firſt beareth leaves like unto Coriander, but that they be fatter, and as broad as thoſe of the Mallow, of a ſwert colour: the ſtalke is whitiſh,
D or griſled and ſlender, the root alſo white: it groweth ordinarily along great rode waies, eſpecially in cold, ſhadowie, and moiſt places. The ſecond is better furniſhed with leaves, and thoſe more cut and endented than the former, and riſeth up with greater and higher ſtalkes. The third is the leaſt, having a ſtrong ſent, and bearing a yellow flower like unto gold. The fourth is like to this, and hath likewiſe a yellow flower. They be all of them of a cauſticke and burning qualitie. For lay but the leaves raw and greene (as they grow) upon any place, they will raiſe bliſters in the skin, as well as a light coale of fire: which is the reaſon, that they bee much uſed for leproſies and foule skabs; alſo to take out any markes imprinted in the skin, or unſeemely ſcarre. In ſumme, it is one of the ingredients that goe to the making of all potentiall cauteries or cauſticke medicines. Where the haire is gone, and the place bare and naked, they uſe commonly to applie theſe hearbes for to recover the haire againe: but they muſt bee ſoone remooved. For
E tooth-ach alſo it is an ordinarie thing to chew of their roots, but if one continue ſo long, it will burſt their teeth in peeces. The ſame beeing cut into roundles, and dried, and ſo beaten into pouder, ſerveth to provoke ſneeſing. Our Herbariſts here in Italie call this hearbe Strumea: becauſe it helpeth and cureth the wens named Strumæ or the Kings evill, and the flat biles or puſhes called Pani, if the ſame be hanged up afterwards in the chimney to take ſmoake. For this opinion they have, and be verely perſuaded, That if it be ſet again into the ground, the wens and biles aforeſaid which were healed, will returne and bee ſore againe. The like ſorcerie and witchcraft they uſe with Plantaine: But in truth, the juice of Plantaine is ſingular good for the cankers or ulcers within the mouth: ſo are the leaves and roots, if they be onely chewed, yea though the patient or diſeaſed perſon were troubled with the ſpitting rheume; for they intercept all
F thoſe defluxions, which take a courſe into the mouth. Cinque-foile is a very ſoveraigne hearb for the ſores of the mouth, and for ſtinking breath. Pſyllium, *i.* Fleawort, is good for the ulcers thereof.

But ſince I have named a ſtinking breath, which is a foule and naſtie diſeaſe, putting man or woman to ſhame, as no infirmitie more; I will ſet downe one or two compound receits for that

Dioſcorides ſaith white.

*It containeth water indeed within the concavities or arme-pits (as it were) of the leaves where they ioine to the ſtem, but ſurely in rivers it groweth not

Lafteo. Dioſcor. i. white.

that imperfection. Take Myrtle and Lentiske leaves, of each a like weight; of the Gall nuts growing in Syria, halfe as much in quantitie: stampe them all together, and in the stamping, sprinckle them with good old wine: give the patient this composition in bole to chew and eat in the morning, there is not the like medicine unto it for a sweet breath. Also take Ivie berries, Casia or Canell, and Myrrhe, of each an equall weight, incorporat them with wine in manner aforesaid, and use this confection accordingly. For the sores that bee incident to the nose, the seed of Dragons made into pouder, and tempered with honey, is singular to be applied therunto, yea though they were very cankers, and had eaten deepe. Where the skin looketh blacke and blew, whether it be under the eyes, or otherwise in any part of the visage, a salve made of Hyssope applied therto, restoreth it to the fresh and native colour. To conclude, a liniment of Mandragoras taketh out the markes or prints that bee branded or seared in the face [if it bee applied presently while they be fresh.]

THE XXVI. BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

¶ The Proëme.

Chap. I.

¶ Of medicines appropriat and respective to all other parts and members of the bodie. Of certaine new maladies: and namely, of the illfavored tettar called Lichenes: what kind of infection it is, and when it first entred into Italie. Of the blaine or sore called the Carbuncle. Of the filthie leprosie or wild scab named Elephantiasis. And of the Collicke.

LOng it is not since the face and visage of men began to bee annoied with certaine new and straunge diseases, unknowne in our forefathers daies, and never heard of before in Italie, nor almost in any part of Europe. And even of late daies when these maladies set first foot in these parts, they were not seen for to spread throughout all Italie, ne yet to raunge greatly in Illyricum, Fraunce, or Spaine, although some little sprinckling there was in those countries: but about Rome onely and those quarters adjoining, as they raigned first, so they raged most. These newcome diseases verely were nothing painefull to the patients, nor daungerous any waies and deadly; but so foule and filthie, so loathsome and ougly, that a man would have chosen rather to die any death, than to bee so disfigured. But of them all, the worst and most detestable was that, which by a Greeke name they called Lichenes, and in Latine (because ordinarily it began about the chin) *Mentagra. A tearme given unto it (I assure you) at the first by way of jeast and in a meriment (as commonly we see many are disposed to play and make good game at other mens miseries) but afterwards it went currant in every mans mouth: and by no other name than Mentagra was it knowne, notwithstanding the disease possessed not the chin alone, but in many that had it, tooke up the whole visage, all save the eyes, yea, and ran downeward to the neck and breast, spreading also to the armes and the very hands: and in such sort was the skin of the poore wretches

*For *Mentum* in Latine is a chin.

bepainted

A bepainted and beraied with foule scurfe and filthie scales, as it would have pitied one at the heart to see them. This contagious disease, our fathers and aunce stors in times past never heard of, nor knew what it meant: for the first time that ever it crept into Italie, was in the daies of *Tiberius Claudius* late Emperour of Rome, even about the middle of his reigne; and that was by the means of a certaine knight or gentleman of Rome borne at Perusium, who being secretarie or clerke unto the treasurer under the Romans in Asia, and giving attendance according to his place, chaunced there to be infected, and so he brought the disease over with him to Rome. But will you heare the straunge nature of this foule evill? women were not subject unto it; no more were slaves, base and poore commoners, no nor citizens of mean state and condition: the greatest gentlemen and those of the nobilitie, it made choise of, and picked them from among the
B rest: very catching it was, and soon passed from one to another, especially by the mouth, and * by the means of a kisse were it never so short: foule and illfavoured enough was the disease it selfe, but the skar, remaining after it was healed (for many there were who came under the Chirurgians hand and endured the cure) looked a hundred times worse: and why? no way there was to rid it, but by caustick medicines or potentiall cauteries; and unlesse the flesh were eaten away to the verie bones, it was not possible to kill and root it out cleane, but it would revive and spring again. And verely there came Physicians and Chirurgians out of Ægypt (a countrey apt to breed the like diseases and where they bee common) such as professed onely the skill in this kind of cure, who filled their purses well, and mightily enriched themselves by their practise at Rome: for well knowne it is, that *Manilius Cornutus* (late L. Pretour, and lieutenant generall for the state in
C the province of Guienne or Aquitane in Fraunce) dealt with one of these Ægyptian leeches for to be cured of this disease, and agreed to pay him 200000 sesterces for his paine. And thus much of Mentagra.

* *Veloci transitu oscula*: for men used to salute one another by a kisse.

Moreover, what a wonderfull thing is this observed in these new kind of maladies, that many times (contrarie to the course of other sicknesses) they come togither in troups; that some of them should all on a suddaine light upon a particular country; that they should take to one certaine member of mans bodie; assaile those of such an age and no other; have a spight to persons of this or that qualitie, and spare the rest: as if they made choise, some to plague young children, others elder folke; some to punish none but the rich and mightie, others to be doing with the poore and needy? In our Annals or Chronicles we find upon record, That while *Lucius*
D *Paulus* and *Q. Marcius* were Censors of Rome, the pestilent carbuncle (a disease appropriat to Provance and Languedoc in Fraunce) came first into Italie. Of which maladie, there died within the compasse of one yeere (about that verie time when I compiled this worke and historie of mine) two noble men of Rome and late Consuls, to wit, *Iulius Rufus* and *Q. Levanius Bassus*: of which two, the former was cut for it by the counsell of unskilfull Physicians, and * by that means lost his life. As for the other, having it upon the thumbe of his left hand, he chaunced * to prick it himselfe with a needle; and although the wound was so small, that hardly it could be seene and discerned, * yet it cost him his life. This carbuncle riseth ordinarily in the most hidden and secret parts of the bodie, and for the most part under the tongue: it is hard and red in manner of the swelling veins called in Latine Varices: and yet in the head it looketh blackish,
E the skin also about it seemeth swert and dead: it stretcheth the skin and the flesh in some sort stiffe, but without any great swelling; no paine at all, no itching, no other symptome but sleepe, wherewith it so possesseth the Patients, that in three daies it will make an end of them. Otherwhiles it causeth the partie to fall into a quivering and shaking as it were for cold, and raiseth certaine blisters or angrie pimples round about it; and verie seldome causeth an ague: but looke in whomsoever it taketh to the stomacke or throat, it quickly dispatcheth and maketh an end of them.

* Either by some mortification or effusion of blond.
* *Pollici acu impulsa.*
* It seemeth by a gangrene.
* Most of these signes shew a gangrene and canker, rather than our carbuncle.

As touching the white leprosie, called Elephantiasis (according as I have before shewed) it was not seene in Italie before the time of *Pompey* the Great. This disease also began for the most part in the face, and namely it tooke the nose first, where it put forth a little specke or pimple no
F bigger than a small Lentill; but soone after, as it spread farther and ran over the whole bodie, a man should perceive the skin to be painted and spotted with divers and sundrie colours, and the same uneven, bearing out higher in one place than another, thicke here but thin there, and hard every where; rough also, like as if a scurfe or scab overran it, untill in the end it would grow to be blackish, bearing downe the flesh flat to the bones, whiles the fingers of the hands, and toes of

the feet were puffed up and swelled againe. A peculiar maladie is this and naturall to the Ægyptians; but looke when any of their kings fell into it, woe worth the subjects and poore people: for then were the tubs and bathing vessels wherein they sate in the baine, filled with mens bloud for their cure. But surely this disease continued not long in Italie, before it was quite extinguished: like as another before it, in old time called *Gemursa, which began between the toes: and so long agoe it is since any have been troubled therewith, that the very name also is forgotten and growne out of use. Where by the way, this is to be noted as a straunge and wonderfull thing, That some of our diseases should have an end and loose their course for ever; and others againe continue still: as for example, the cholique passion; which came among us no longer agoe than in the daies of *Tiberius Cæsar* the Emperour: and the first that ever felt it, was the prince himselfe; whereupon arose no small question throughout the whole citie of Rome: for when as the said Emperour published a certaine proclamation, wherein hee excused himselfe for not comming abroad to manage the affairs of the State, because he was sicke of the cholique; the Senat and people reading this straunge name of an unknowne maladie, entred into a deepe discourse with themselves, What to thinke and make of it? But what should we say of all these kind of diseases? and what an anger and displeasure of the gods is this, thus to plague and punish us? Was it not enough to have sent amongst men into the world a certaine number of maladies otherwise, and those not so few as three hundred, but wee must be in feare and daunger still every day of new? And yet see! as many as there be of them comming by the hand of God, yet men thorow their owne excesse and disorders, bring as many more upon themselves, and be causes still of farther troubles and miseries. Well, thus you see by that which I have written in the former books, what was the old Physicke in times past, namely, consisting of the simples onely found in dame Natures garden, and how she alone at the first and for a long time, was our Physician and furnished us with remedies for all diseases.

Some thinke it was an inflammation resembling our Carbuncle or Anthrax.

Chap. II.

The praise of Hippocrates, and other Physicians meere Simplists.

Hippocrates verely had this honour above all men, That hee was the first who wrote with most perspicuitie of Physicke, and reduced the precepts and rules thereof into the bodie of an Art: howbeit, in all his books we find no other receits, but hearbs. Semblably, the writings of *Diocles* the Carystian, were no lesse stored with the like medicines, and yet a famous Physician he was, and both in time and reputation next and second to *Hippocrates*. *Praxagoras* also, and *Chrysippus*, yea and after them *Erasistratus* held on the same course. As for *Herophilus*, although hee was the first that went more exquisitly to worke and brought in a more subtile and fine method of Physicke, yet none esteemed better of Simples than he. But surely, practise and experience (which as in all things else is found to be most effectuall, so in the profession of Physicke especially) began in his daies by little and little to slake, untill in the end all their Physicke prooved nothing but words and bibble babbles: for beleeve me, his schollers and disciples thought it more for their ease and pleasure to sit close in the schooles and heare their doctours out of the chaire discourse of the points of Physicke, than to goe a simpling into the desarts and forrests to seeke and gather hearbs at all seasons of the yeere, some at one time and some at another.

Chap. III.

Of the new practise in Physicke: of Asclepiades the Physician: and what course he tooke to alter and abolish the old Physicke for to bring in the new.

WHat cunning means soever these new Physicians could devise to overthrow the auncient manner of working by simples, yet it maintained still the remnants of the former credit, built surely upon the undoubted grounds of long experience; and so it continued till the dayes of *Pompey* the Great, at what time *Asclepiades* a great Oratour and professor of Rhetoricke went in hand to pervert and reject the same: for seeing that he gained not by the said Art sufficiently, and was not like to arise by pleading causes at the bar, to that wealth which he

A he desired (as he was a man otherwise of a prompt wit and quicke spirit) he resolved to give over the law, and sodainly applied himselfe to a new course of Physicke. This man having no skill at all, and as little practise, considering he neither was well studied in the Theoricke part of this science, nor furnished with knowledge of remedies which required continuall inspection and use of simples, wrought so with his smooth and flowing tongue and by his daily premeditat orations gained so much, that hee withdrew mens minds from the opinion they had of former practise, and overthrew all. In which discourses of his, reducing all Physicke to the first and primitive causes, he made it a meere conjecturall Art; bearing men in hand, that there were but five principall remedies which served indifferently for all diseases; to wit, In diet, Abstinence in meat, Forbearing wine otherwhiles, Rubbing of the bodie, and the *Exercise of gestations. In summe,

B so far he prevailed with his eloquent speech, that every man was willing to give eare & applause unto his words; for being readie enough to beleeve those things for true, which were most easie; and seeing withall, that whatsoever he commended unto them, was in each mans power to performe, he had the generall voice of them: so as by this new doctrine of his, he drew all the world into a singular admiration of him, as of a man sent and descended from heaven above, to cure their griefs and maladies. Moreover, a wonderfull dexteritie and artificiall grace he had to follow mens humors and content their appetits in promising and allowing the sicke to drinke wine, in giving them eftsoons cold water when he saw his time, and all to gratifie his Patients. Now for that *Herophylus* before him had the honour of beeing the first Physician who searched into the causes of maladies: and because *Cleophantus* had the name among the auncients, for bringing

C wine into request and setting out the vertues theteof: this man for his part also, desirous to grow into credit and reputation by some new invention of his owne, brought up first the allowing of cold water beforesaid, to sicke persons; and (as *M. Varro* doth report) tooke pleasure to be called the Cold-water Physician. He had besides other pretie devises to flatter and please his Patients, one while causing them to have hanging litters or beds like cradles, by the mooving and rocking whereof too and fro, hee might either bring them asleepe, or ease the pains of their sickenesse; otherwhiles ordaining the use of bains, a thing that he knew folke were most desirous of: besides many other fine conceits very plausible in hearing, and agreeable to mans nature. And to the end that no man might thinke this so great alteration and chaunge in the practise of Physick, to have been a blind course and a matter of small consequence, one thing above the rest that woon

D himselfe a great fame, and gave no lesse credit and authoritie to his profession, was this, That meeting upon a time by chaunce with one he knew not, caried forth as a dead corse in a biere for to be burned, he caused the bodie to be carried home from the funerall fire, and restored the man to health againe. Certes this one thing, we that are Romans may be well ashamed of and take in great indignation, That such an old fellow as he, comming out of Greece (the vainest nation under the sunne) and beginning as he did of nothing, should onely (for to enrich himselfe) lead the whole world in a string, and on a suddaine set downe rules and orders for the health of mankind, notwithstanding many that came after him, repealed as it were and annulled those laws of his. And verely, many helps had *Asclepiades*, which much favoured his opinion and new Physicke, namely, the manner of curing diseases in those daies, which was exceeding rude, trou-

E blesome, and painfull; such adoe there was in lapping and covering the sicke with a deale of cloaths, and causing them to sweat by all means possible: such a worke they made sometime in chafing and frying their bodies against a good fire, but every foot in bringing them abroad into the hot sun, which hardly could be found within a shadie and close cittie as Rome was. In lieu whereof, not onely there but throughout all Italy (which now commaunded the whole world and might have what it list) hee followed mens humors in approoving the artificiall baines and vaulted stouves and hote-houses, which then were newly come up and used excessively in everie place by his approbation. Moreover, he found means to alter the painfull curing of some maladies, and namely of the squinancie; in the healing whereof, other Physicians before him went to worke with a certaine instrument which they thrust downe into the throat. He condemned also

F (and worthily) that dog-physicke which was in those daies so ordinarie, that if one ailed never so little, by and by he must cast and vomit. He blamed also the use of purgative potions, as contrary and offensive to the stomacke; wherein hee had great reason and truth on his side: for to speake truly, such drinks are by most Physicians forbidden, considering our chiefe care and drift is in all the course of our physick, to use those means which be comfortable & holesome for the stomack.

* *i.* Riding on horsebacke, carrying in coach, litter, barge, &c.

G

Chap. iiii.

The foolish superstition of Art Magicke, which here is derided. Of the tettar called Lichen: the remedies proper for it, and the diseases of the throat.

ABove all other things, the superstitious vanities of Magicians made much to the establishing of *Asclepiades* his new Physicke hearbs; for they in the heigth of their vanitie, attributed so strange and incredible operations to some simples, that it was enough to discredit the vertues of them all. First, they vaunted much of Æthiopus, an hearb which (by their saying) if it were but cast into any great river or poole, it would draw the same drie; and was of power (by touching only) to open locks, or unbolt any dore whatsoever. Of Achœmenius also H another hearbe, they made this boast, That being throwne against an armie of enemies ranged in battaile array, it would drive the troups and squadrons into feare, disorder their ranks, and put them to flight. Semblably, they gave out and said, That when the King of Persia dispatched his Embassadors to any forrein States and Princes, he was woont to give them an hearbe called Latace, which so long as they had about them (come where they would) they should want nothing, but have plentie of all that they desired: Besides a number of such fooleries wherewith their books be pestred. But where, I beseech you, were these hearbs when the Cimbrians and Teutons were defeated in a most cruell and terrible battaile, so as they cried and yelled againe? What became of these Magicians and their powerfull hearbs, when *Lucullus* with a small armie consisting of some few legions, overthrew and vanquished their owne kings? If herbs were so mighI tie, what is the reason (I pray you) that our Romane captains provided evermore above all things how to be furnished with victuals for their campe, and to have all the waies and passages open for their purveiours? In the expedition of Pharsalia, how came it to passe that the souldiers were at the point to be famished for want of victuall, if *Cæsar* by the happie having of one hearbe in his campe, might have enjoyed the abundance of all things? Had it not been better (thinke yee) for *Scipio Aemilianus* to have caused the gates of Carthage to flie open with the helpe of one hearbe, than to lie so many yeers as he did in leaguer before the cittie, and with his engins and ordenance to shake their walls & batter their gates. Were there such vertue in Æthiopus aforesaid, why do we not at this day drie up the Pontine lakes, and recover so much good ground unto the territorie about Rome? Moreover, if that composition which *Democritus* hath set downe K and his books maketh praise of, to be so effectuall, as to procure men to haue faire, vertuous, and fortunat children, how happeneth it that the kings of Persia themselves could never attaine to that felicitie? And verely we might marveile well enough at the credulitie of our aunceſtors in doting so much upon these inventions (howsoever at the first they were devised and brought in, to right good purpose) in case the mind and wit of man knew how to stay and keepe a meane in any thing els besides: or if I could not proove (as I suppose to doe in due place) that even this new leech-craft brought in by *Asclepiades* which checketh those vanities, is growne to farther abuses and absurdities than are broched by the verie Magicians themselves. But this hath been alwaies and ever will be, the nature of mans mind, To exceed in the end and go beyond all measure in every thing which at the beginning arose upon good respects and necessarie occasions. L

But to leave this discourse: let us proceed to the effects and properties remaining behind of those hearbs which were described in the former booke; with a supplement also and addition of some others, as by occasion shall be offered and presented unto us. Howbeit, to begin first with the remedies of the said Tettars (so foule and unseemly diseases) I meane to gather a heape of as many medicines as I know appropriat for that maladie, notwithstanding I have shewed alreadie of that kind, not a few. Well then, in this case, Plantaine stamped is verie commendable: so is Cinquefoile and the root of the white Daffodill, punned and applied with vinegre. The young shoots or tender braunches of the figg-tree boiled in vinegre: likewise the root of the * marsh Mallow sodden with glew in a strong and sharpe vinegre to the consumption of a fourth part. Moreover, it is singular good to rub tettars throughly with a pumish stone first, to the end that M the root of Sorrell stamped and reduced into a liniment with vinegre, might bee applied afterwards thereupon with better successe; as also the floure of *Misselto tempered and incorporat with quicke-lime: the decoction likewise of Tithymale togither with rosin, is much praised for this cure: but the hearbe Liverwort excelleth all the rest, which therupon tooke the name Lichen: it groweth

* *Hibisci*, some take it for the Hollyhocke.

* *Visci*, some read *Hibisci*.

A groweth upon ſtonie grounds, with broad leaves beneath about the root, having one ſtalke and the ſame ſmall, at which there hang downe long leaves: and ſurely this a proper hearbe alſo to wipe away all markes and cicatrices in the skin, if it be bruiſed and laid upon them with honey. Another kind of * Lichen or Liverwort there is, cleaving wholly faſt upon rocks and ſtones in manner of moſſe, which alſo is ſingular for thoſe tettars, beeing reduced into a liniment. This hearbe likewiſe ſtaunceth the flux of bloud in greene wounds, if the juice be dropped into them: and in a liniment, it ſerveth well to be applied unto apoſtumat places: the jaundiſe it healeth, in caſe the mouth and tongue be rubbed and annointed with it and hony togither: but in this cure the Patients muſt have in charge, To bath in ſalt water, to annoint themſelves with oile of almonds, and in any caſe to abſtaine from all ſalads and pothearbs of the garden. For to heale tettars, the root of Thapſia ſtamped with honey, is much uſed.

* Our common Liverwort.

B As for the Squinſie, * Argemonia is a ſoveraign remedie if it be drunke in wine: Hyſſope alſo boiled in wine and ſo gargarized: likewiſe Harſtrang with the rennet of a Seale or Sea-calfe, taken both of them in equall portion: moreover, Knotgraſſe ſtamped with the pickle made of Cackrebs and oile, and ſo gargled; or els but held onely under the tongue: Semblably, the juice of Cinquefoile, being taken in drinke to the quantitie of three cyaths: this juice beſides, in a gargariſme, cureth all other infirmities of the throat. And to conclude with Mullen; if it bee drunke in water, it hath a ſpeciall vertue to cure the inflammation of the amygdals or almond kernels of the throat.

* Which ſome take to be wild Poppie, called *Rhœas*.

C

Chap. V.

Receits for the ſcrophules or wens called the Kings evill: for the pains and griefs of the fingers: for the diſeaſes of the breaſt, and namely for the cough.

PLantaine is a ſoveraigne hearbe to cure the Kings evill: alſo Celendine applied with honey and hogs lard: ſo is Cinquefoile. The root of the great Clot-bur ſerveth for the ſame purpoſe, if it be incorporat with hogs greaſe, ſo that the place after it is annointed therewith, be covered with a leafe of the ſaid Bur laid faſt upon it: in like manner Artemiſia or Mugwoort: alſo a Mandrage root applyed with water, is good for that purpoſe. The broad leafed Sideritis

D or Stone-ſatuge, being digged round about with a ſpike of yron and taken up with the left hand, and ſo applyed unto the place, cureth the Kings evill; provided alwaies, that the Patients when they be healed, keepe the ſame hearbe ſtill by them, for feare leaſt it being replanted againe by theſe Herbariſts (ſuch is the malicious ſorcerie of ſome of them as I have alreadie ſhewed) the maladie returne and be as bad as it was before: The like caveat I find given unto them, who are cured of this diſeaſe either by Mugwort or Plantaine. The hearbe Damaſonium, called likewiſe * Aliſma, if it be gathered about the Summer ſolſtead, applied unto the foreſaid wens with raine water, is ſingular good for them: for which purpoſe, the leaves are to be ſtamped, or the root bruiſed and incorporat with hogs greaſe, and ſo applied in a liniment; with charge, That the place be covered with a leafe of the ſame: in which manner prepared and uſed, it ſerveth to allay

E all pains in the nape of the necke, and to keepe downe or diſſipat the ſwelling in any part of the bodie. There is an hearbe growing commonly in medows called the Daiſie, with a white floure and partly enclining to a red, which if it be joyned with Mugwort in an ointment, is thought to make the medicine farre more effectuall for the Kings evill. Condurdum is an hearbe of ſmall continuance, for about the Summer ſolſtice it ſheweth a red floure and ſoon ſheddeth the ſame: which (as they ſay) if it bee hanged about the necke, repreſſeth and keepeth under the foreſaid diſeaſe: the like doth Vervaine togither with Plantaine, uſed and worne in the ſame manner.

* *Alcea* in ſome readings.

Touching all the accidents happening to the fingers, and namely the excreſcences and riſings of the skin about the roots of the nailes, called in Greeke Pterygia, Cinquefoile is a ſingular good hearbe for them.

F Among all the infirmities of the breaſt, the cough is moſt troubleſome and grievous; for which, the root of Panaces in ſweet wine is a ſoveraigne remedie. The juice of Henbane is excellent for them alſo that reach up bloud out of the breaſt: and the very ſmoke thereof as it burneth, is as proper for them that cough. In like manner, Scordotis being dried and made into powder; afterwards mingled with creſſes and roſin, and ſo reduced into a liquid confection or

Iohoch, cureth the cough. The ſaid hearbe taken ſimply by it ſelfe alone, raiſeth tough fleame out of the breaſt, and cauſeth it to breake from the Patient with eaſe. The like effect hath Centaurie the greater, yea though a man did bring up bloud: for which infirmitie, the juice of Plantain alſo is thought to be ſingular. Betonie taken in water to the weight of three oboli, is of great force againſt the ſpitting of bloud, and raiſing up of filthie matter out of the cheſt. The root of the great bur hath the like vertue, if it be eaten to the weight of one dram with eleven Pine-nuts. The juice of Harſtrang, as alſo Galangale, is good for the paine in the breaſt; and therfore they goe both of them into preſervatives and antidots which ſerve for countrepoiſons. The Carot likewiſe helpeth thoſe that cough; like as the hearb Scythica (which is the wild caraway:) for being drunke to the weight of three cyaths in ſweet wine cuit, it is generally good for all diſeaſes of the breaſt, for the cough, and helpeth ſuch as fetch up filthie and rotten matter. H

Chap VI.

Of Mullen or Lungwort: of Cacalia: of Folefoot called Tuſsilago or Bechium: and of Sauge: hearbs all appropriat for the cough.

MVllen or Lungwort with the yellow golden floure, being in like manner taken to the ſame quantitie, eaſeth the foreſaid infirmities. Certes this hearbe is of that efficacie in theſe caſes, that if a drench thereof be given to horſes, which not onely have the cough but alſo be broken winded, it will helpe them. The ſame effects I find attributed to Gentian. The root of Cacalia ſoked in wine and chewed, is good not onely for the cough but alſo for the infirmities in the throat. Take five braunches or ſlips of hyſſope, and two ſprigs of rue, with three figs, ſeeth theſe togither, it is an excellent drinke for to diſcharge the breaſt of fleame that ſtuffeth it. Folefoot, called in Greeke Bechion, that is to ſay in Latine* Tuſſilago, doth appeaſe the violence of the cough. Two kinds there be of this hearb: the wild, which wherſoever it is ſeen to grow, ſheweth that there is water under it: a thing that they know well enough who ſeeke for ſprings, for they take it to be an aſſured ſigne and direction to water: it beareth leaves like to Ivie, but ſomewhat bigger, either five or ſeven in number, which underneath or toward the ground be ſomewhat whitiſh, but above in the upper ſide, of a pale colour, without floure, ſtem, or ſeed, and the root is but ſmall. Some would have it and Chamæleuce both, to be one and the ſame hearbe called by divers names. Take this hearbe, leafe and root togither when they be dried, ſet all on fire and receive the ſmoke by a pipe, as if you would ſucke or drinke it down, it is (they ſay) a notable medicine to cure an old cough; but between every pipe you muſt ſip a pretie draught of ſweet wine. The ſecond Bechion ſome would have to be called Salvia, an hearbe like unto Mullen: ſtampe the ſame, and let the juice run through a ſtreiner; which being made hot, drinke it for the cough and paine in the ſides. This hearbe likewiſe is very effectuall againſt ſcorpions and ſea-dragons. Alſo an inunction made therewith and oile togither, is commended much for the ſting of ſerpents. A bunch of hyſſope ſodden with three ounces of honey, is a fine medicine for the cough.

* *i.* Cough-wort.

Chap. VII.

For the paine of the ſides and breaſt: for thoſe that cannot draw their wind but ſetting upright: for the paine of the liver: the heart ach: for the lights: difficultie of urine: the cough: the breaſt: ulcers: for the eyes: for the flux of the belly, occaſioned by a feeble liver: againſt immoderat vomits: for the yex, the pleuriſie, and all griefes of the ſide. L

LVngwort or Mullen drunke in water with rue, is very good for the paine of the ſides and the breaſt: for which purpoſe alſo, they ſay, that powder of Betonie is as good, if it be taken in water well warmed. The juice of Scordotisis holden to be a great corroborative of the ſtomacke: ſo is Centaurie alſo & Gentian, drunke in a draught of water. Plantain either eaten alone by it ſelfe, or with a gruell and broth of Lentils, or els in a frumentie potage made with wheat, is comfortable to the ſtomack. Betonie, although otherwiſe it lie heavie in the ſtomack: yet if one either chew the leaves, or drinke them in ſome broth, it helpeth much the defects and infirmities thereof. In like caſe Ariſtolochia if it be taken in drinke. Alſo A garicke chewed drie, ſo as between whiles the patient ſup a little of pure wine of the grape, hath the like vertue. As for Nym- M

phæa

A phæa or Nemphar ſurnamed Heraclia, it ſtrengtheneth the ſtomacke, applied outwardly in a liniment: even ſo doth the juice of Harſtrang. For the hot diſtemperature of the ſtomacke, it is good to lay unto it the hearbe Flea-wort, or Cotyledon, otherwiſe called Vmbilicus veneris, ſtamped with fried Barley meale into a cataplaſme: or els to take Iubarbe, *i.* Sengreene, to the ſame effect. The hearbe Molon hath a ſtem *chamfered or channelled along: ſoft leaves, & thoſe ſmall: a root foure fingers long, in the *end whereof it beareth an head like unto Garlicke. Some call it Syron. Taken in wine, it helpeth the ſtomacke and difficultie of drawing breath: In which caſes the greater Centaurie is ſingular, if it bee reduced into a lohoch or liquid electuarie. Plantaine alſo eaten any way, either in a green-ſauce or ſallad. This compoſition is reputed a ſoveraign medicine, Take of Betonie ſtamped the weight of one pound, of Atticke honey as much, incor-

B porat them together, and hereof drinke every day the quantitie of halfe an ounce in ſome convenient liquor, or in water warme. Ariſtolochia or Agaricke are ſoveraigne meanes to be uſed in theſe infirmities, if one drinke the weight of three oboli thereof, either in warme water or aſſes milke. The hearbe Ciſſanthemos is good to be drunke for thoſe that be ſtreight winded, & muſt ſit upright when they draw their breath. In the like caſe Hyſſope is commended: as alſo for purſiveneſſe and ſhortneſſe of wind. The juice of Harſtrang is an ordinarie medicine for the greeſe of the liver, the paines alſo of breaſt and ſides, in caſe the patient be cleare of the ague. As for Agaricke, it helpeth all ſuch as ſpit bloud, if the pouder thereof, to the weight of one Victoriat, be given in five cyaths of honied wine. Of the ſame operation is Amomum. But particularly for the liver, the hearbe Teucria is thought to be ſoveraigne, if it be taken freſh and greene to the weight

C of foure drams in one hemine of water and vinegre mixed together. One dram of Betonie given in three cyaths of warme water, or in twain of cold, is thought to be a ſingular cordiall. The juice of Cinquefoile helpeth all the imperfections of the liver and lights, it cureth them that void or reach up bloud, and generally it ſerveth for all inward corruptions and diſtemperatures of the whole maſſe of bloud. Both Pimpernels bee wonderfull medicinable for the liver. Fumiterrie the hearbe whoſoever do eat, ſhall purge choller by urine. Galangale is helpefull likewiſe to the liver, to the cheſt alſo, and the midriffe or precordiall parts. The hearbe Caucon, named alſo *Ephedra, and by ſome Anabaſis, groweth ordinarily in open tracts expoſed to the wind: it will climbe upon trees, and hang downe from their boughs and braunches. Leafe it hath none, but is garniſhed with a number of haires, which are no other but ruſhes indeed full of joints and knots: the

D root is of a pale colour. Let this hearbe be beaten to pouder, and given in red wine that is greene and hard, it is good for the cough; for the ſhortneſſe of wind, and the wrings of the bellie: it may be taken alſo in ſome other ſupping, whereto it were convenient to put wine. In like ſort the infuſion of one dram of Gentian which hath lien ſteeped the day before, may bee very well taken in three cyaths of wine for thoſe purpoſes. Hearbe Benet or Avens hath a ſmall root of a blackiſh colour, which hath a good ſent: This hearbe not only cureth the paines of the breaſt & ſide, but alſo diſcuſſeth all crudities proceeding of unperfect digeſtion, by reaſon of the pleaſant favour that it hath. As for Vervaine, it is medicinable unto all the principall and noble parts within the bodie: good for the ſides, the lungs, the liver, and the breaſt: But moſt properly it reſpecteth the lungs, and namely, when the patient is in a phthyſicke or conſumption, by meanes of

E their ulcer. The root of Bearefoot, an hearbe which I ſaid was but lately found out, is a preſent remedie for ſwine, ſheepe, goats, and all ſuch cattell, in caſe they bee diſeaſed in the lights, if it bee but drawne croſſe through any one of their eares. The ſame ought to bee drunke in water, and a peece thereof continually held under the tongue. As for any other part of this hearbe above ground, be it leafe, ſtalke, flower, or ſeed, it is not yet certainly knowne, whether it bee good or no for any purpoſe in Phyſicke. As for the kidneies, the hearbe Plantaine is good to bee eaten; Betonie to be drunke; Agaricke alſo to be taken in drinke, like as for the cough. *Tripolium groweth upon the rockes by the ſea ſide, on which the ſea-water beateth: ſo as a man cannot ſay, that it is

F either in the ſea or the drie land: In leafe it reſembleth woad, but that it is thicker: the ſtem is a ſpan or hand-breadth high, forked, and devided at the point: the root white, odoriferous, groſſe, and hote in taſt: when it is ſodden in a frumentie pottage of wheat, they give it with good ſucceſſe to thoſe that bee diſeaſed in the liver: This is thought of ſome to bee all one with Polium, whereof I have ſpoken in due place. Symphonia or Gromphena, an hearbe having leaves ſome red, others greene, growing to the ſtem in order, one red and another greene, is a ſoveraigne medicine for ſuch as reach and void up bloud, if it be taken in oxycrat, or vinegre and water mingled

together.

*Seriato, haply for *ſtricto*, *i.* ſlender, as *Oribaſius* deſcribeth it, κεκλὸν λεπτὸν.

*Dioſcorides deſcribeth his Moly with ſuch a head upon the top of the ſtem.

* By theſe names he calleth alſo Horſe-taile.

* A kind of Turbit.

together. Melandryum is an hearbe found growing in corne fields and meddowes, with a white flower, and the same of a sweet and pleasant sent: the small stems thereof be commended for the liver, in case they be stamped & given in old wine. Chalcetum commeth up in vineyards: which if it be pruned, serveth for a good cataplasme to be applied unto the region of the liver. The root of Betonie taken to the weight of foure drams in wine cuit or honied wine, provoketh vomit readily, as well as Ellebore. But for this purpose Hyssope is better, beeing beaten in pouder, and given with honey: but order would be given before unto the patient, to eat Cresses or Irio. *Molemonium also is of the like effect, if it be taken to the weight of one denier. Moreover, the hearbe Silybum hath a white juice like unto milke: which after it is thickened to the substance of a gum, is usually taken to the foresaid weight, with honey, for a vomitorie; and doth evacuat chollericke humours especially. On the contrarie side, wild Cumin and the pouder of Betonie, if they bee drunke with water, doe stay vomiting. For to digest the crudities of the stomacke, and to rid away the loathing to meat, Carrot is thought to be very good: so is the pouder of Betonie, if it be taken in honied water: and Plantaine also boiled in pottage after the manner of Coleworts or such like pothearbes. *Hemonium staieth the painefull yex or hocquet. In like sort Aristolochia. Clymenos giveth libertie to draw the wind more freely. The greater Centaurie and Hyssope are singular in drinke for the pleurisie and inflammation of the lungs. The juice of Harstrang principally is a proper remedie for those that have the plurisie. Touching that plant, which the French call *Halarin: the Venetians Cotonea: it is holden excellent for the greese of the sides, for the reines, those that bee plucked with the crampe, and bursten by any inward rupture: This hearbe somwhat resembleth wild Origan or Marjeram, save that in the head it is like rather unto Thyme: sweet it is in tast, and quencheth thirst: a spungeous and light root it hath, in one place white, in another blacke. Of the same operation for the paines of the side, is Chamærops, an hearb which hath leaves growing double about the stalke, and those like unto the Myrtle leaves: and bearing certaine buttons or heads, much after the manner of the Greekish Rose; and the way to take it is in wine. Agaricke drunke in that order as it was prescribed for the cough, doth assuage the paine of the Sciatica and the backe bone. Semblably, doth the pouder of dried Stœchas or Betonie, if it be taken in mead or honied water.

*or Polemonium.

*Ceterach.

*Bugle, or *Symphytum Pentæum.*

G H I

Chap. viii.

Of all the infirmities and remedies of the bellie, and those parts that either bee adjoining to it, or within contained. The meanes how to loosen and bind the bellie.

K

TOuching the paunch or bellie, much adoe there is with it: and although most men care for nothing els in this life, but to content and please the bellie, yet of all other parts it putteth them to most trouble: For one while it is so costive, as that it will give no passage to the meat; another while so slipperie, as it will keepe none of it: one time you shall have it so peevish, as that it can receive no food; and another time so weake and feeble, that it is able to make no good concoction of it. And verely now adaies the world is growne to that passe, that the mouth and paunch together are the cheefe meanes to worke our death. The wombe (I say) the wickedest vessell belonging to our bodies, is evermore urgent, like an importunat creditour, demaunding debt, and oftentimes in a day calleth unto us for victuals: For the bellies sake especially wee are so covetous to gather good; for the bellie, we lay up so many dainties and superfluities; to content the bellie, wee sticke not to saile as farre as the river Phasis; and to please the bellie, wee seeke and sound the bottome of the deepe seas: and when all is done, no man ever thinketh how base and abject this part of the bodie is, considering that filthie ordure & excrement which passeth from it in the end. No marvell then if Physicians bee much troubled about it, and bee forced to devise the greatest number of medicines for the helpe and cure thereof. And to begin with the staying and binding of it: a dram of Scordotis the hearbe, stamped greene and taken in wine, dooth the feat: so doth the decoction thereof, if it be drunke. Also Polemonia is a soveraigne hearbe to bee given in wine for the bloudie flix. The root of Mullen or Lungwort, taken to the quantitie of two fingers in water, worketh the same effect. The seed of Nymphæa Heraclea drunke in wine, is of the like operation: so is the upper part of the double root of Glader or the Flag, ministred to the weight of two drams in vinegre. To this purpose serveth also Plantain seed, done into pouder

L M

and

A and put into a cup of wine: or the hearbe it ſelfe boiled with vinegre, or els frumentie pottage taken with the juice thereof. Plantaine ſodden with Lentils, or the pouder of the drie hearb ſtrewed like ſpice into drinke, together with the pouder of parched Poppie. The juice alſo of Plantaine or of Bettonie put into wine that hath been heat with a red hote gad of ſteele, either miniſtred by clyſtre or drunke, in the ſaid caſe is very commendable. Moreover, the ſame Plantaine or Bettonie is ſingular to bee given in ſome greene or auſtere wine, for thoſe who are troubled with the laske proceeding from a weake ſtomacke: and for that purpoſe Iberis may bee applied unto the region of their bellie, as I have before ſaid.

In the diſeaſe Tineſmus, (which is an inordinat quarrell to the ſtoole, and a ſtraining upon it, without doing any thing) the root of Nemphar or Nymphæa Heraclia, is ſingular good to bee
B drunke in wine: likewiſe Fleawort taken in water, & the decoction of *Galangale root. The juice of Houſleeke or Sengreene, ſtoppeth the flux of the wombe, ſtaieth the bloudie flux, and chaſeth out of the bodie the round wormes. The root of Camfrey and of the Carot, ſtoppeth likewiſe the bloudie flix. The leaves of Houſleeke ſtamped and taken in wine, are ſingular good againſt the wringing torments of the bellie. The pouder of dried Alcæa drunke, cureth the ſaid wrings. Aſtragalus, or Peaſe Earthmot, an hearbe bearing long leaves, indented with many cuts or jags, and thoſe which be about the root made bias: riſeth up with three or foure ſtems full of leaves: carrieth a flower like unto the Hyacinth or Crow-toes: the roots are bearded and full of ſtrings, enfolded one within another, red of colour, and exceeding hard in ſubſtance: it groweth in rockes and ſtonie grounds expoſed to the Sunne, and yet charged or covered with ſnow the moſt part of
C the yeare, ſuch as is the mountaine Pheneus in Arcadia. This hearbe hath an aſtringent power. The root if it be drunke in wine, bindeth the bellie, by which meanes it provoketh urine, namely by driving backe the ſerous and waterie humours to the reines; like as moſt of thoſe ſimples that be aſtringent that way, are diuretical. The ſame root ſtamped and taken in red wine, healeth the exulceration of the guts, & thereby ſtaieth the bloudie flix: but ſurely hard it is to bruiſe or ſtamp it: The ſame is ſingular for the apoſtumation of the gums, if they be fomented therwith. The right ſeaſon to draw and gather thoſe roots, is in the end of Autumne, when the hearbe hath loſt the leaves, and then they ought to bee dried in the ſhade. Both ſorts of Ladanum growing among corne, be excellent for to knit the bellie, if they be ſtamped and ſearced. The manner is to drink them in mead: likewiſe in wine* for to repreſſe choller. Now the hearb wherof Ladanum is made,
D is called Lada, and groweth in the Iſland Cypros, the liquor wherof ſticketh commonly to goats beards. The excellent Ladanum commeth out of Arabia. There is a kind of it made now adaies in Syria and Affricke, which they call Toxicon: for that in thoſe countriees the people uſe to take their bowſtrings lapped about with wooll, and traile the ſame after them among thoſe plants which beare Ladanum, and ſo the* fattie dew cleaveth thereto. Of this Ladanum I have written more at large in my Treatiſe of ointments & redolent compoſitions. But this latter kind is ſtrongeſt in ſavor and hardeſt in hand; and no marvell, for it gathereth much groſſe and earthly ſubſtance, whereas indeed the beſt Ladanum is commended and choſen, when it is pure, cleare, odoriferous, ſoft, greene, and full of roſin. The nature thereof is to ſoften, to drie, to concoct, and to procure ſleepe: it retaineth the haire of the head being given to ſhed, and maintaineth the ſame
E blacke ſtill, that it turne not hoarie: holeſome it is for the eares, if it bee inſtilled into them with Hydromel, (that is to ſay, mead or honied water) or els with oile Roſat. It cleanſeth the skin of dandruffe, and when it ſeemeth to pill: and withall, healeth the running ſcals of the head, if ſalt be mixed therewith. And beeing taken with Storax [Calamita] it cureth an inveterat cough: but moſt proper it is for thoſe who belch ſoure and ſtrong. Moreover, Chondris, which alſo is called baſtard Dictamnum, is a great binder of the bellie: ſo is Hypociſthis, named by ſome Orobathion, much reſembling a green or unripe Pomgranat. This plant groweth (as I have ſaid) under Ciſthus, whereupon it tooke the name. Both kinds of it (for twaine there be, to wit, the white and the red) being dried in the ſhade, ſtay a laske, if they be drunke in thicke auſtere or greene wine.
F The juice onely is uſed in Phyſicke, the which is aſtringent and deſiccative: and the red kind is of the twaine more appropriat for the ſtaying or drying up of rheumes; which if it bee drunke to the weight of three oboli, is ſoveraigne for them that reach and raiſe up bloud. Either drunke or clyſterized with Amyl, it cureth the bloudie flix. The like effects hath Vervaine given in water, yea, and in Amminean wine, if the patient have no ague hanging upon him: with this proportion, that there be the quantitie of five ſpoonefuls of the hearb put to three cyaths of wine. Moreover,

* *Acorũ*, which ſome take for our *Calamus Aromaticus*.

* *Ad bilẽ*. Some read *nobile*.

* *Pinguedine roſcida*.

over, the hearbe Laver, which loveth to grow in brookes and rivers, beeing either condite and G
preſerved, or els ſodden, allaieth the wrings of the bellie. Waterſpeeke or Pondweed called in Greeke Potamogeton, is ſingular good for the dyſenterie or bloudie flix; for the flux alſo, which proceedeth from a weake ſtomacke. This hearbe beareth leaves like unto Beets, but that they bee leſſe onely and more hairie, or furred with a downe. A little it beareth above the water, and hath a peculiar propertie, which is refrigerative and aſtringent. The leaves alone be medicinable, and thoſe be good for the morimals in the legs: for cancerous and corroding ulcers, if they be applied in a cataplaſme with honey or vinegre. *Caſtor* the Phyſician deſcribeth this hearbe * Potamogeton after another ſort, namely with a ſmall ſlender long leafe like unto horſe haires, putting forth a long ſtem likewiſe and the ſame ſmooth, growing alſo in waters. Hee uſed with the root of this hearbe to cure the Kings evill, and heale all hard tumours. This Potamogeton hath an adver- H
ſative nature to Crocodiles alſo, and therefore they who hunt after them, carie this hearbe ordinarily about them. In like manner Achillea ſtoppeth a laske. And the ſame effects worketh Statice, an hearbe running up commonly in ſeven ſtems, in the top bearing buttons or heads reſembling Roſes. *Ceratia beareth but one leafe, and hath a knottie and great root, which is good to bee eaten for to cure the laske, occaſioned by the feeble ſtomacke, and the bloudie flix, proceeding from the ulcer of the guts. Lions-paw, commonly called *Leontopodion, by ſome Leuceoron, by others Dorypetron, and Thorybetron, hath a root which *bindeth the bellie, and yet notwithſtanding purgeth choller: if it be taken to the weight of two denarij Roman, in mead or honied water. This hearbe groweth in light and leane champion grounds. It is ſaid, that if the ſeed thereof bee taken in drinke, it cauſeth ſtraunge viſions and fantaſticall dreames. Harefoot, I
which the Greekes name Lagopus, drunke in wine, bindeth the bellie: but if the patient bee in an ague, it would be taken with water: being applied and bound unto the ſhare, it repreſſeth the tumors and riſings in thoſe parts: An hearbe this is growing uſually among corne. Many there bee, who for the daungerous bloudie flix that is thought incurable, commend highly above all other hearbes, Cinquefoile, in caſe the patient drinke the roots thereof boiled in milke: and the like opinion they have of Ariſtolochia, in caſe there be taken of the root to the weight of one victoriat in three cyaths of wine. Now, this would be noted by the way, that in theſe caſes of aſtringencie and binding, all the medicines beforenamed which are to be taken warme, ought to bee heat with a gad of ſteele, quenched in the liquor. Thus much of thoſe Simples that bind the bellie.

Myriophyllon aquaticum. Dodonæi.

Dodonæi Ophioglosſon or Adders tongue.

*Our ladies Mantle.

* *Dalechampius* marvelleth how this may ſtand: and yet we ſee it ordinarie in the cure of dyſenteries and outragious Diarrhæs, to purge choller with Rubarbe, Myrabolanes, &c. and with them alſo to bind.

K

Contrariwiſe, the juice of Centaurie the leſſe is a purgative, if a dram thereof bee taken in one hemine of water, together with ſome few cornes of ſalt and drops of vinegre; for it dooth evacuat choller. The greater Centaurie, commonly called Rhaponticke, ſtilleth the wrings and griping paines of the bellie. Betonie maketh the bodie looſe and ſoluble, taken to the weight of foure drams in nine cyaths of Hydromell or Mead. In like manner Euphorbium is laxative, and ſo is Agaricke, if two drams thereof be drunke in water with a little ſalt, or to the weight of three oboli in mead or honied water. Sowbread alſo, named by the Greekes Cyclaminos, taken inwardly with water, or put up by ſuppoſitories, provoketh to the ſeege: ſo dooth a ſuppoſitorie made with the root of *Chamæciſſus. Take a good bunch or handfull of Hyſſope, ſeeth it in water with a little ſalt to the conſumption of a third part: it ſerveth to evacuat fleagme, if it bee but L
applied as a liniment to the bellie: or ſtamped and incorporat with Oxymel and ſalt, in which manner uſed, it driveth wormes out of the bodie. The root of Harſtrang purgeth both fleagmaticke and chollericke humors alſo. Pimpernell taken in mead, is a good purgative: ſo is Epithymum, which you muſt take to bee the *flower of a kind of Thyme that reſembleth Saverie: here is the difference onely, that this flower is of a graſſe greene colour, but that of the other Thyme is white. Some call this Epithymum, Hippopheon: a ſimple not very wholeſome for the ſtomacke, ne yet good to provoke vomit; howbeit, ſingular to appeaſe the wringing pains in the bellie, and to carminat or diſſolve ventoſities. The ſame alſo may bee taken by way of lohoch or liquid electuarie, confected with honey, and ſometimes with the Ireos root, for the ſtuffing and other imperfections of the breaſt. Epithymum looſeneth the bellie, if it be taken from M
foure drams to ſix, with honey, a little ſalt and vinegre. Some Herbariſts deſcribe Epithymum otherwiſe, namely, that it groweth without any root, and that it reſembleth a little ſmall ſtring or thread like unto haire, of a red colour: which if it be dried in the ſhade and drunke in water to the weight or meaſure of halfe an acetable, purgeth downeward fleagme and choller both.

* Which ſome take for groũd Ivie.

*Here *Plinie* is deceived: for it is a kind of lace winding about Thyme, as Doder about Flax.

Nem-

A Nemphar taken in ſome aſtringent or hard wine, *gently purgeth the bellie. Alſo, Pycnocomon is laxative: An hearbe this is like unto Rocket, but that the leaves bee thicker in ſubſtance, and *grow more thin: it hath a round root, and the ſame yellowiſh, and ſenting much of the earth: the ſtem is foure cornered, of a meane height, ſmall and ſlender, and the flower much like to that of Baſill. Found it is ordinarily in ſtonie grounds. The root of this hearbe drunke in mead, to the weight of two deniers, doth evacuat downeward by the bellie, both chollericke and alſo flegmaticke humors. The ſeed cauſeth troubleſome and unquiet dreames, if one drinke a dram thereof in wine. Fumiterrie alſo *conſumeth and diſpatcheth the Kings evill. Polypodium (which we call in Latine Fidicula) becauſe it is like unto fearne, purgeth choller. The root, which is onely me-

B dicinable and in uſe, is full of haires, of a greeniſh colour within, as big commonly as a mans little finger: full of hollow concavities it is, repreſenting thoſe holes that the fiſhes called Polypi have about their feet or clees: ſweetiſh it is in taſt, and groweth either upon rockes, or *els at the foot of old trees. After that this root hath beene well ſoaked in water, they uſe to preſſe the juice forth of it; or the ſame may be ſhred & minced ſmall, ſtrewed among pothearbes either of Beets or Mallowes, yea, and put into the pot with them; or els tempered in ſome ſalt ſauce, or ſodden in broth: a fine medicine and a ſafe, gently looſing the bellie, though the patient were in an ague. It doth evacuat choller and fleagme both: but ſomewhat offenſive it is to the ſtomacke. The pouder of it dried, conveighed up into the noſthrils, conſumeth the illfavored ſore within, called Polypus or Noli-me-tangere. It *floureth, but ſeedeth not. Moreover, Scammonie alſo overturnes and hurteth the ſtomacke, unleſſe two drams of Aloe be put unto as many oboli of it: for then it

C purgeth choller, and ſendeth it down by the bellie. Now this Scammonie is the juice of a certain hearbe (called likewiſe Scammonea) which brancheth and tufteth immediatly from the root: the leaves be fat, white, and made trianglewiſe: the root thick, moiſt, and in handling will make ones ſtomacke to riſe, and be readie to heave. It loveth to grow in battle grounds, and thoſe of a white leere. About the riſing of the great dog ſtar they uſe to make an hollow trough in the root as it groweth, to the end, that all the moiſture thereof may fall and gather into it: which liquor beeing dried in the Sunne, is wrought and made into bals or trochiskes. The root it ſelfe alſo is commonly dried, or at leaſtwiſe the rind thereof. In regard of the countrey where it groweth, that is commended moſt which commeth from Colophon, Myſia, and Priene: but if you reſpect the forme and looke of it, chuſe that which is neat and cleane, reſembling as neare as poſſibly may

D be, ſtrong Ox glue, ſpungeous or fiſtulous, full of holes or paſſing ſmall pipes. If you go by other qualities, take that which will ſoone diſſolve or melt: which alſo hath a ſtrong and ſtinking ſmell, clammie and gummie, turning into a whitiſh liquour like milke, if you taſt it at the tongues end, exceeding light in the hand, and when it is reſolved, growing to a whitiſh colour. And yet this propertie you ſhall ſee in that Scammonie which is ſophiſticat: and that ywis may ſoone bee done, for doe but take the meale or flower of Ervile and the juice of the ſea Tithymal (and ſuch is that commonly which commeth from Iudæa) it will counterfeit the right Scammonie: but ſuch ſtuffe as this offendeth the throat, and is readie to choake or ſtrangle as many as uſe it. Howbeit this may be ſoone found by the very taſt onely: for the Tithymal ſetteth the tongue in a heat as if it were a bulbe root: and is not good to purge, whether a man take it faſting or full. As for the

E true and ſyncere Scammonie, they were wont to exhibit it for a purgation even ſimply by it ſelfe alone in a draught of mead with ſome ſalt, and the doſe was foure oboli. But it was found to doe the deed beſt, and moſt effectually taken with Aloe: ſo that the patient, when it began once to worke, tooke a pretie draught of ſweet honied wine. Furthermore, the root if it be boiled in vinegre to the conſiſtence of honey, maketh a ſingular liniment for to annoint the leproſie: yea, and in caſe of headach it is found good to annoint the head with it and oile together. As for the Tithymall aforeſaid, our countreymen here in Italie, ſome call it Lactaria, as one would ſay, the Milke hearbe; other Lactuca caprina, *i.* Goats Lectuce. It is commonly ſaid, that with the milke or juice of theſe Tithymals, a man may write upon the skin of the bodie: for draw any letters therewith and ſtrew aſhes or duſt thereupon, when they bee drie, they will appeare very legible.

F And this is a tricke practiſed by thoſe that make court unto other mens wives their miſtreſſes, delivering their minds ſecretly unto them by this meanes, which they dare not ſet downe in paper or miſſive letters. Many kinds there bee of theſe *Tithymals. The firſt is known by the addition of Characias, which alſo is called the male Tithymall: the *braunches be of a finger thicknes, red, *riveled, five or ſix in number, running up to the height of a cubit: and leaved they bee immediatly

Cuius contrarium verum eſt, for it is a binder.

*How is it then called *Pycnocomon*?

*I ſee not how this ſhould ſtand here.

* Yea & in the head of old doddle Okes.

* It beareth neither flower nor ſeed.

*or Spurges.

**Ramis*, rather *caulibus*, *i.* the ſtems, out of *Dioſcor.*

**Rugoſis. Dioſc.* hath *ſuccoſis*, *i.* full of ſap.

atly from the root, which hang downeward enclining to the earth: but in the top it hath an hairie tuft or head in manner of rushes. This groweth in rough places and rockes by the seas side. G
The seed together with the hairie bush that it hath, they use commonly to gather in Autumne: which after it be dried in the Sunne, they stampe and then lay up against their need. As for the juice, men draw it about the time that Quinces begin to ripen and gather a downe about them: for then they breake the sprigs and tender crops of the plant, out of which there issueth the juice or milke, which they receive either in Ervile flower, or els upon Figgs, that it may drie with them together. Now, it is sufficient to let five drops fall upon every such figge: For this opinion they have, that looke how many drops light upon a figge, so many stooles shall hee have who taketh that figg in a dropsie, to purge waterish humors. But in the gathering of this juice or liquor, great heed must be taken, that no drop of it touch the eyes. There is a juice also pressed out of the leaves H
being bruised and stamped, but not so effectuall as the former. The decoction of the braunches also is used to the same purpose. And the seed being sodden, serveth to the making of certain pils confected with honey, which are highly commended for purgatives. The same seed * enclosed within wax, is good to bee put into hollow teeth when they ake: In which case also, a collution made of the root boiled in wine or oile, is singular good, if they bee washed therewith. With the juice of this hearbe there is a liniment made for tettars and ringworms. And some there be who drinke the same for to purge both upward and downward, for otherwise an enemie it is to the stomacke: in which potion if there bee put some salt, it doth evacuat fleagme, but with saltpetre it voideth chollericke humors. If the patient have a mind to purge by seege, hee shall doe well to drinke the juice of Tithymall in water and vinegre mingled together: but if hee bee disposed to I
vomit, it is better to drinke it in cuit or mead. The ordinarie dose is three oboles thereof in a potion. But the better way is to take the figges prepared as is beforesaid after meat: and even so taken, in some sort the juice doth sting the throat and set it on fire. For to say a truth, of so hot a nature it is, that alone of it selfe, being applied outwardly unto any part of the bodie, it raiseth pimples and blisters no lesse than fire; in which regard, it is used for a caustick or potentiall cauterie.

*or rather the seed or milke is to be put into the faultie and hollow teeth: and the rest which bee found are to be defended with wax, according to *Dioscorides*.

The second kind of the Tithymall, is knowne by the name Myrsinites, which others call Caryites: The reason of the one name is this, for that it beareth sharpe pointed and prickie leaves in manner of the Myrtle, but that they bee somewhat more tender: and the same groweth in rough places like as the former. The bushie heads or tufts of this Tithymall, would bee gathered when Barley beginneth to swell in the eare: & so they be let to take their drying in the shade nine daies K
together: for in the Sunne they will be withered in that space. The fruit which this plant beareth, dooth not ripen all together in one season, but some part thereof remaineth against the next yeare: and the said fruit is called the Tithymall nut, which is the cause, that the Greekes have imposed upon it that second name Caryites. The proper time to gather and cut down this hearbe, is when corne is ripe in the field and readie to be reaped or mowed. Which being washed, must afterwards be laid forth a drying: & so they use to give it with two parts or twice as much of blacke Poppie, yet so as the whole dose may not exceed one acetable. This Tithymall is nothing so strong a vomitorie as the former, no more be the rest whereof I will speake anone. Some there be who give the leaves also with blacke Poppie after the foresaid proportion: & the very nut or fruit it selfe alone in mead or cuit, or elfe if they put any thing thereto, it must be Sesama: and truly in L
this manner it sendeth flegmatick and chollerick humors away by seege. This Tithymal is singular for the sores in the mouth: But for the cankerous and corrosive ulcers indeed which corrode deepe in the mouth, it is good to chew and eat the same with honey. The third kind of Tithymall is called Paralius or Tithymalis. This hearbe putteth forth round leaves: riseth up with a stalke a span or handfull high: the branches be red and the seed white, which ought to be gathered when the grape beginneth to shew [blacke] upon the vine. And being dried and made into pouder, is a sufficient purgation, so it be taken inwardly to the measure of one acetable. The fourth kind is named Helioscopium: the leaves whereof, resemble Purcellane, and from the root it putteth foorth foure or five small upright braunches, which be likewise red and halfe a foot high: the same also be full of juice or milke. This hearbe delighteth to grow about towne sides, bearing a white seed, M
wherein Doves & Pigeons take exceeding great pleasure: which also is ordinarily gathered when the grape maketh some shew of ripening. It took this name Helioscopium, for that it turneth the heads which it beareth, round about with the Sunne. Halfe an acetable thereof taken in Oxymell, purgeth choller downeward. And in other cases used it is, like as the former Tithymall named

Ex Theophrast.

Characias.

A Characias. The fifth, men call Cypariſſias, for the reſemblance that the leaves have to thoſe of the Cypreſſe tree: it riſeth up with a double or threefold ſtem, and loveth to grow in champion places: of the ſame operation and vertue it is, that Helioſcopium and Characias before named. The ſixt Tithymall, is commonly called Platyphyllos, although ſome name it Corymbites, others Amygdalites, for the reſemblance that it hath to the almond tree: there is not a Tithymall hath broader leaves than it, which is the reaſon of the firſt and uſuall name Platyphyllos: it is good * to kill fiſh: it purgeth the bellie, if either the root, leaves, or juice, be taken in honeyed wine or in mead, to the weight of foure drams: a ſpeciall vertue it hath to draw water downward from all other humors. The ſeventh is called commonly Dendroïdes, and yet ſome give it the name Cobion, others Leptophyllon: ordinarily it is found growing upon rocks, & of all others
B carrieth the faireſt head: likewiſe the ſtems be reddeſt, and the ſeed ſheweth in moſt plentie: the effects be all one with thoſe of Characias. As touching the plant called Apios Iſchas or Rhaphanos-agria, *i.* the wild Radiſh: it putteth forth two or three ſtalkes like bents or ruſhes, ſpreading along the ground, and thoſe be red, and the leaves reſemble rue: the root is like an onion head, but that it is larger, which is the reaſon that ſome have called it the wild Radiſh: this root hath a white fleſhie ſubſtance within, but the skin or rind thereof is blacke: it groweth uſually upon rough mountains, and otherwiſe in faire greens * full of graſſe. The right ſeaſon to dig up this root, is in the Spring; which being ſtamped and ſtrained, they uſe to put in an earthen pot, where it is permitted to ſtand, and looke what it caſteth up and ſwimmeth aloft, they ſcum off and throw away: the reſt of the juice thus clarified, purgeth both waies, if it be taken to the weight of
C one obolus & a halfe in mead or honied water: and in that manner prepared, it is given to thoſe that be in a dropſie, the full meaſure of one acetable: the powder alſo of the root dried, is good to ſpice a cup for a purgation: and (as they ſay) the upper part of the root purgeth * choller upward by vomit, whereas the nether part doth it by ſeege downward.

Now for the pains and wrings which often times torment the poore belly: all the kinds of Panaces and Betonie are ſingular to aſſuage and allay them clean, unleſſe they be ſuch as are occaſioned by cruditie and indigeſtion. As for the juice of Harſtrang, it diſſolveth ventoſities, for it breaketh wind upward and cauſeth one to rift: ſo do the roots of * Acorus: alſo Carots, if they be eaten in a ſalad after the manner of * Lettuce. For the infirmities proper to the guts, and namely
D the worms there breeding, Ladanum of Cypreſſe is ſoveraign to be taken in drinke: in like manner the powder of Gentian drunke in warme water, to the quantitie of a beane: Plantain likewiſe hath the ſame effect, if ther be taken of it firſt in a morning to the quantitie of two ſpoonfuls, and of Poppie one ſpoonfull, in foure cyaths of wine not very old: the ſame medicine may be given alſo laſt at a night to bedward; with ſome addition of ſal-nitre or fried barly meale, if it be long after meat: and one hemine of the juice thereof is ſingular for the cholique, if it be miniſtred in a clyſter, though the Patient were in an ague. In caſes of the Splene, it is good to drinke three oboles weight of Agarick in one cyath of old wine, for it cureth the ſplene: and of the ſame operation is the root of all ſorts of Panaces, taken in honied wine: but for the accidents of the ſplene, Teucrion hath no fellow, if it bee taken either drie in powder, or boiled, to the quantitie of one handfull in three hemines of vinegre: and the ſame hearbe maketh a ſoveraigne ſalve for green
E wounds to be applied with vinegre; or if the Patient cannot endure it, with a fig or water in ſtead of vinegre. Polemonia likewiſe is a good herb for the ſplene, to be drunke in wine: ſo is Betonie, taken to the poiſe of one dram in three cyaths of oxymell: and Ariſtolochia is likewiſe reſpective to this part, in caſe it bee given unto the Patient as againſt the poiſon of ſerpents. If the Patient continue the eating of Argemonia ſeven daies togither with his meat, it will (as they ſay) in that time conſume and waſt the ſwelling ſplene: and Agarick taken to the weight of two oboli in oxymell, is effectuall that way. The root of Nymphæa Heraclia or Nenuphar drunke in wine, is able of it ſelfe to conſume the ſame. Ciſſanthemos is an excellent hearbe for the ſplene or milt: if a man take a dram of it twiſe a day in two cyaths of white wine, and hold on that courſe for fortie
F daies togither, it will (by report) rid away the diſeaſed ſplene by urine: to which purpoſe, the decoction of hyſſope with figs ſerveth verie well: even ſo doth the decoction of Lonchitis, if it be taken before it ſpindle and run up to ſeed: alſo the root of Harſtrang boiled, is good for ſplene and kidnies. Acorum, if it be taken in drinke, conſumeth the milt.

For the Midriffe and Hypochondriall parts, or the ſmall guts lying in the flanke under the ſhort ribs, * Radiſh roots be ſingular. The ſeed of water Betonie, if it be drunke thirtie daies to-

* If it be punned into pouder & ſtrewed upō the water, as ſaith *Dioſc.*

* *Herbōſis: Theophraſtus* hath κιχλακώδη: that is to ſay, craggie or flintie: it ſeemeth that *Plinie* tranſlated χλοώδη.

* And fleame, ſaith *Dioſcor.*

* Which ſome take for Galangale, others for our Calamus.

* *i.* With vinegre and oile.

* *Radices.*

gither, the weight of one denarius at once in white wine, is ſingular in that caſe: the powder of G
Betonie taken in drinke with honey and vinegre of Squilla, is commended for that purpoſe: as alſo the root of Lonchitis drunke in water; and Teucrium applied as a liniment.

Scordum incorporat with wax, and Agaricke with the powder or floure of Fenigreeke, helpe the infirmities of the bladder, and namely, the intollerable paines of the ſtone and gravell, as I have beforeſaid. Polemonia drunke in wine; and in like manner Agaricke, is good for that purpoſe: the root or leaves of Plantaine taken in ſweet wine cuit; alſo Betonie, prepared in that manner as it was appointed for the diſeaſe of the liver, bee remedies for the infirmities of that part. Betonie alſo given in drinke and applied in a liniment, healeth a rupture; and the ſame is moſt effectuall in curing the ſtrangurie: ſome preſcribe and give counſell to drinke Betonie, Vervaine, Yarrow, or Millefoile, of each a like portion in water, as an excellent remedie for the ſtone H
and gravell. And well knowne it is, that for to eaſe the ſtrangurie and remoove the cauſe therof, Dictamnus is an approoved medicine: ſo is the decoction of Cinquefoile, if it be boiled in wine to the conſumption of a third part, found by experience to be an undoubted remedie in that infirmitie: the ſame alſo is ſingular good to bee applied in that rupture where the guts bee falne downe. The upper root of Glader or Flags, cauſeth young infants to make water, if it be laid to the bottom of the belly: the ſame given inwardly with water, cureth thoſe that are burſt and have their guts ſlipped downe; and helpeth the infirmities of the bladder in an outward liniment. The juice of Harſtrang healeth little children who are burſten; and of Fleawort there is made a good ointment to anoint their navell, when it beareth out overmuch. Both the Pimpernels doe provoke urine: ſo doth the decoction of Acorus root: the very root it ſelfe alſo beaten into powder, and taken in drinke, worketh the like effect; and beſides, healeth all the accidents of the bladder. Cotyledon or Vmbilicus Veneris, both hearbe and root, breaketh the ſtone and expelleth I
it by gravell; being otherwiſe ſingular good for all inflammations of the genitall parts or members of generation, if the ſtalks and ſeed be taken with myrrhe, of each a like quantitie: Walwort ſtamped togither with the tender leaves therof, and ſo drunke in wine, driveth out the ſtone: the
* To wit, when they be hard or ſwolne.
ſame applied outwardly, cureth the * accidents befalling to the cods. Groundſwell, with the powder of frankincenſe and ſweet wine reduced into an ointment, cureth the inflammation of the ſaid cods. The root of Camfrey brought into a liniment, ſtaieth the rupture whereby the guts come downe: and white Hypociſthis, repreſſeth the cancerous ſores in thoſe parts. Semblably Mugwort is ſingular to bee given in ſweet wine, for the ſtone and ſtrangurie. The root of
Nenuphar or Nymphæa Heraclia taken in wine, aſſuageth the paine and griefe of the bladder: K
* Or *Creſtmarine.*
of the ſame power is * Sampier, ſo highly commended by *Hippocrates:* now is this one of the wild woorts which are uſually eaten in ſalads: and certes, this is that very hearbe which the good
* To prince *Theſeus.*
countrey wife *Hecate* forgat not to ſet upon her bourd in a feaſt that ſhe * made (as we may read in *Callimachus* the Poët:) And what is it but a kind of garden Batis? It groweth up with one ſtem halfe a foot high, or a ſpan at moſt: the ſeed is exceeding hote, round, and odoriferous like unto Roſemarie: if it be dried, it burſteth, and hath within a white kernell, which ſome call Cachrys. The leaves be fattie, and of a greyiſh white in manner of the olive leafe, but that they be thicker, and ſaltiſh in taſt: roots it hath three or foure, of a finger thickneſſe: it groweth upon the ſea coaſt among rocks and cliſts. This hearbe may be eaten, raw or boiled, it skilleth not how, with Beets, L
Coles, and other ſuch woorts; and in taſt likewiſe it is aromaticall and pleaſant: it is uſually preſerved and kept condite in a kind of pickle: and the principall uſe that it hath, is to cure the ſtrangurie, if either leafe, ſtalke, or root, be drunke in wine: alſo, being thus taken, it maketh folke look with a more lovely and cheerefull colour: but if one be too bold with it, and uſe it not with moderation, it breedeth ventoſities. The decoction of Sampier, maketh the bodie ſoluble, and is diuretically, for it mightily draweth water from the kidnies. In like manner, the powder of dried Althæa or marſh Mallow, drunke in wine, cureth the ſtrangurie, and eaſeth them that piſſe dropmeale; which it will doe more effectually, if the Carot be joyned withall: the ſame is holeſome for the ſplene; and a countrepoiſon againſt ſerpents, if it be taken in drinke. If the powder therof be ſtrewed and mingled among the barly which is given in provander unto cart-horſes and ſuch M
like, it helpeth them when they run at noſe with the glanders, and ſtale drop by drop. Touching the hearbe Anthyllion, it is as like as may be unto Lentils, which if it bee drunke in wine, cureth all the infirmities of the bladder, and namely, when there iſſueth forth bloud with urine. There is another hearbe comming neare to it in name, to wit, Anthyllis, like unto Iva muſcata, or Chamæpitys,

A mæpitys, carrying purple flours, ſenting ſtrong, and hath a root like to Cichorie, which is good in theſe caſes. But it ſeemeth that * Brookelime, called otherwiſe Cepæa (an hearbe reſembling Purcellane, but that the root is blacker, and good for nothing in Phyſicke, growing upon the ſandie ſhore, and having a bitter taſt) is better for the ſaid infirmities than the former named Anthyllis; for if it bee taken in wine with the root of Sperage, it is excellent for the diſeaſes of the bladder: of the ſame operation is * Hypericon, which ſome call Chamæpitys, others Corion. This hearbe * ſhooteth forth many braunches, which be ſmall and ſlender, of a cubit in length, and red withall: in leafe it reſembleth rue; the ſmell is quicke, hot, and piercing: the ſeed which it beareth within certaine cods, is blacke, and the ſame ripeneth togither with barley. The nature of the ſeed is aſtringent: it doth incraſſat and thicken humors, and ſtoppeth a laske: urine it pro-

B voketh; and being drunke in wine, ſcoureth away the ſtone and gravell in the bladder. A ſecond Hypericon there is, which ſome call Coris, in leafe it reſembleth * Tamarix, under which it gladly groweth, but that the leaves bee more fat, and not ſo red: it groweth not * above a ſpan high: odoriferous to ſmell unto, and of a mild ſweet taſt, and yet * ſharpe withall. The ſeed is hot, and therefore cauſeth ventoſities, and * inflation in ruptures: howbeit, unto the ſtomacke it is not hurtfull: and ſingular good for the ſtrangurie, in caſe the bladder bee not exulcerat: drunke in wine, it cureth the pleuriſie. Moreover, for the bladder and the diſeaſes thereof, Maidenhaire made into powder togither with Cumin, and given in white wine, is a ſoveraigne remedie: alſo Vervaine, ſodden leaves and all, untill the third part of the liquor be conſumed: or the very root only thereof taken in honeyed wine hote, expelleth the ſtones and gravell in the bladder. In like

C manner the hearbe Perpreſſa, which groweth at Aretium and in Sclavonia, being boiled in water from three hemines to one, and ſo taken inwardly as a drinke, is an appropriat medicine for the bladder. Claver or three-leafed graſſe taken in wine; Camomile likewiſe * drunke, is good for the ſame. Moreover, Anthemum expelleth the ſtone: an hearbe this is, which putteth forth immediatly from the root five ſmall leaves, and two long ſtems, with a red-roſe colour floure: the roots ſtamped alone, are as effectuall in this caſe as greene * Laver. As for Silaus, it groweth along thoſe rivers which run continually and be never drie, eſpecially ſuch as glide upon ſand and gravell: it riſeth to the heigth of a cubit, and reſembleth garden Perſley: they uſe to ſeeth it after the manner of * Soure-docke, and ſo prepared, it doth much good to the bladder; which, if it be excoriat and ſcabbed, the root of Panaces will heale it: for otherwiſe it is hurtfull to that part.

D The hearbe called * Malum Erraticum, [*i.* as one would ſay, the wandring poiſon, or apple] it expelleth the ſtone, if one pound of the root be throughly ſodden in a congius or gallon of wine, unto the conſumption of the halfe, ſo that the Patient take thereof for three daies togither one hemine at a time; and that which remaineth of the decoction, in wine, with Laver & Sea-nettles. Alſo Carots and Plantaine ſeed taken in wine, driveth downe ſtone and gravell. The nettle called Fulviana (an hearbe well known to them eſpecially that handle it, and which tooke that name of him who firſt found out the vertue therof) if it be ſtamped and drunke in wine, provoketh urine.

Scordium is ſingular for the ſwelling of the genetoirs or cods. Henbane is good for the diſeaſes of the members ſerving to generation. The juice of Peucedanum, [*i.* Hartſtrang] incorporat with honey, like as the ſeed alſo taken inwardly, helpeth thoſe who are pained with the ſtran-

E gurie: likewiſe Agaricke, if three oboli thereof be drunke in one cyath of old wine: the root of Trifoile or Claver given to the poiſe of two drams in ſweet wine: and one dram of Daucum [*id eſt*, Carot] either the hearbe, root, or ſeed, have the like effect.

Such as be troubled with the Sciatica or gout in the hucklebone, find remedie by a plaſtre or cataplaſme, made with the ſeed and leaves both, of Madder; alſo with a drinke of Panaces: likewiſe if the place be well rubbed with Polemonia, and bathed with the decoction of the leaves of Ariſtolochia, it findeth much eaſe thereby. The broad ſinew or cord at the end of the muſcles which is called in Greeke Platys; likewiſe the ſhoulders if they bee pained, feele ſenſible alleviation, by Agaricke, if the weight of three oboli be drunke in one cyath of old wine. Cinquefoile both taken in drinke, and alſo applyed as a plaſtre, allayeth the paine of the Sciatica: ſo doth the

F hearbe Scammonie boiled with barley meale. The ſeed of both the Hypericons drunke in wine, is proper for that maladie.

The accidents of the ſeat or fundement, eſpecially when that part is fretted or galled, a ſalve of Plantaine healeth moſt ſpeedily.

The ſwellings or blind piles appearing like bigs or knuckles within the fundement, are cured

* *Becabunga.*

* *S. Johns* wort.

* *Sarculacto frutice.*

* *Tamaricis*: but *Dioſc.* ſaith *Ericæ*, *i.* Heath.

* *Palmo non altius*, *Ex Dioſc.*

* *Acutum.*

* *Inflationem facit*: *aliter*, *ad inflationem facit.*

* *Potum.*

* Water Creſſes.

* *Olus acidum*, or rather, *Olus atrum*, *i.* Aliſanders.

* Some take it for *Ariſtolochia* the round, (which in the 8 chap. of the 25 booke hee named *Venenũ terræ*,) others for wildings or crabs.

with five-leafe grasse: and if the said part be turned the insight outward, or displaced, there is not a better thing to settle and reduce it to the former state, than a fomentation with the Cyclamin or Sowbread root and vinegre togither. Pimpernell with the blew floure, restoreth the tiwill or fundement into the right place, if it be falne down and hang out of the bodie: and contrariwise, that with the red floure, driveth it downe. Vmbilicus Veneris is of wonderfull operation in the cure both of the blind piles, and the running hæmorrhoids. The root of Acorus, [*i.* Galangale] sodden in wine, stamped and brought into a liniment, assuageth the tumors or swellings of the cods. And *Cato* affirmeth, That whosoever have the Ponticke wormewood about them, shall not be galled betweene their legs.

* Or, *Calamus Aromaticus.*

Chap. IX.

Of Peniroyall, and Argemone.

Others add moreover Peniroyall to the foresaid wormwood, and say, That if a man gather Peniroyall fasting and bind it fast to the reins and small of the back, he shall feele no griefe in the share, or if he were pained alreadie in that part, shall find ease thereby. * Inguinaria, which some name Argemone, is an hearbe growing every where among bushes, briers, and brambles, which if it be but held in the hand, is thought to be excellent good for the accidents that befall the groine. Panaces made into a cataplasme with honey, healeth the flat biles and botches that arise in the emunctories of the share: and the like effect hath Plantaine, applied with salt, five-leafe, and the root of the great clot-bur, like as in case of the Kings evill: even so is *Damasonium to be used. As for Taperwoort or Mullen, if leafe root and all be stamped, with some sprinkling of wine among, and be afterwards lapped within a leafe of the owne, and so heat under the embres & laid to the grieved place hot, it is very good for the same purpose. And some affirm upon their owne knowledge, by the experience that they have seene, that this cataplasme will worke much more effectually, if a yong maiden all naked have the applying of it to the said bile; provided alwaies, that both she and he the Patient be fasting: also that shee touch the sore or impostume with the backe-side of her hand, & in so doing say these words following, *Negat Apollo pestem posse crescere quam nuda virgo restinguat*: that is to say, *Apollo* will never suffer, that a botch which a naked virgin thus cureth, shall possibly grow farther: which charm she must pronounce thrice, after she hath withdrawne her hand backe; and withall, both he and shee are to spit as often upon the floore, that is to say, every time that shee repeateth the foresaid spell. Furthermore, the root of Mandragoras being applied with water, healeth these botches: so doth the decoction of the Scammonium root, reduced into a pulteſſe with honey. Also the hearb Sideritis laid too, with old hogs grease: last of all, Chrysippea, incorporat with fat figgs: where, by the way note, that this hearbe retaineth the name of him who first brought it to light.

* Some call it Sharewort or Codwort, others take it to be wild Tansie, and some for *Rhœas.*

* Some take it for *Fistula pastoris.*

* *Pestem*, hap'ly he meaneth *bubonem pestilentialem*, a plague sore.

Chap. X.

Of Water-rose, otherwise called Nenuphar. Of such hearbs as either heat or coole the appetite to lust and venerie. Of Satyrion or Ragwort, * with the red roots of Crategis and Sideritis.

* *Erythraick.*

Nymphæa, which also is named Heraclea, if it be but once taken in drinke, disableth a man altogither for the act of generation (as I have said before) fortie daies after: the same if a man drinke fasting, or eat with his meat, freeth him from the dreams of imaginarie *Venus*, which cause pollution. The root applied in a liniment to the genitoirs, doth not only coole lust, but also keepe downe and represse the abundance of naturall seed: in which regard, it is thought good to nourish the bodie and maintaine a cleare voice. On the contrarie side, the upper root of Glader given to drinke in wine, kindleth the heat of lust: like as the hearbe which they call Sampier savage: as also wild Clarie, being stamped and incorporat with parched barly meale. But in this case wonderfull is the hearbe Orchis both male and female, and few be like unto it; for two kinds there be of it: the one beareth leaves like unto the olive, but that they are longer, riseth up with a stem foure fingers high, carrying purple floures, a double bulbous root formed like to a mans genitoirs, whereof the one swelleth and the other falleth by turns ech other yeare; and ordinarily it groweth neare the sea side. The other is knowne by the name of Orchis Serapias, and

* ὄρτεγόροτος.

is

A is taken to bee the female: the leaves resemble leeke blades, the stalke is a span or hand-breadth high, and the flours be purple; the root likewise is bulbous and twofold, fashioned like to a mans stones or cullions; of which, the bigger, or (as some say) the harder, drunke in water, provoketh the desire to venerie: the lesser or the softer taken in goats milke, represseth the foresaid appetit. Some say it is leafed after the manner of Squilla or Sea-onion, save that the leaves be smoother and smaller, and it putteth up a stalke full of pricks or thorns: the roots whereof, doe heale the sores in the mouth, and discharge the chest of fleame; but drunke in wine, doe stop a laske. A power it hath also to stir up fleshly lust, like as Satyrion: but this hearbe differeth from the other in that it is divided by joynts or knots, and besides busheth more, and is fuller of branches: the root is thought to be good for sorcerie and witchcraft: the same also, either by it selfe alone re-
B duced into powder, or els stamped and incorporat with fried barley groats into a liniment, is singular good for the tumors and other risings and impostumes in the said privie parts or members of generation. The root of the former Orchis given to drinke in the milke of an ewe bred up at home of a cade lambe, causeth a mans member to rise and stand; but the same taken in water, maketh it to goe down againe and lie. As for the Greeks, they describe Satyrion with leaves like unto the red Lillie, but that they be smaller, and no more in number than three, which spring directly from the root: the stem smooth, a cubit high, naked and bare without leaves, and it hath withall two bulbous roots; of which the nethermore, which also is the bigger, serveth to get bois; the upper (and that is the lesse) is as good to engender girles. They have likewise another kind of Satyrion, which they name Erythraicon, and it beareth certaine grains or seeds resembling that
C of * Chast-tree, or Agnus Castus, but that they be bigger and smooth: the root is hard & white within, the rind whereof is red, and in tast is somewhat sweetish: an hearbe ordinarily found (as they say) upon mountains: and by their saying, the root is of that vertue, that if it be held onely in a mans hand, it will cause the flesh to rise & incite him to the companie of women; but much more will it set him in a heat if he drinke it in some hard and green wine: in regard of which propertie, the manner is to give it in drinke to goats and rams, if they bee unlustie and nothing forward to leape the females. The Sarmatians likewise ministred a drench made with this hearbe unto their stone-horses or stallions, when by reason that they are overtravailed and tired out of heart by continuall labour, they perceive them to be slow and unapt to cover mares, which defect the Greeks call by a proper & fit tearme Prosedamon. But say that one by taking of this root
D is over lustie and too much provoked that way, the meanes to abate and quench the heat and strength thereof, is to drinke mead or the juice of lettuce. In summe, the Greeks generally when they would signifie any extraordinarie wanton lust or appetit to venerie, have a prettie name for it and call it Satyrion. And even so they have given a denomination to Cratæogonon, which is an hearbe divided by knots or joynts, busheth and spreadeth with a number of braunches, the seed whereof is hot, and the root of no validitie or use in Physicke: likewise they imposed upon other the names of Arrhenogonum and Thelygonum, the seeds or graines of which resemble cods or cullions. Moreover, it is said, That whosoever have about them the marow or pith of the Tithymall braunches, shall be very prone and forward to the sports of *Venus*. *Theophrastus*, a renowmed author, and otherwise a grave and modest writer, exceedeth in this point, and telleth us
E of straunge and incredible wonders, and namely, of a man who was able to companie with women seventie times togither, by touching or handling one only hearb; but he hath not put down either the name or portraiture of that hearbe.

Sideritis the hearbe, if it be bound to the swelling and painfull veins called Varices in Latine, doth not only diminish their tumor, but also appease and take away their dolour.

Touching the Gout, the time hath been when it was not so common a disease as now it is; and not onely in our fathers and grandsires daies, but even in our age and within my remembrance it was no ordinarie sickenesse here in Italie, as being a forrein maladie and come out of straunge countries hither to us: for certainly if it had been knowne to the Italians in old time, I doubt not
F but it would have found a Latine name to be called by. Neither is the gout a disease incurable, as some have beleeved, for knowne it hath been in some to have worne away of it selfe without any medicines; but in many more, to have been cured by the means of Physicke. Among the appropriat remedies for this maladie, are to bee raunged the roots of Panaces, applied in a cataplasme with raisins; the juice of Henbane or the seed, with the floure or powder of Sesama; Scordium laid too in a pultesse with vinegre; and the hearbe Iberis, as hath been said before: also

Howsoever *Dalecampius*, and others have laboured to restore this place after this manner, yet there remaineth some confusion: by intermingling *Orchis* and *Satyrion* togither, both in their descriptions & properties.

* *Vitices*, *Dioscorides* hath λύγος, *id est*, Line or Flax, not ἄγνος.

Podagra (used ordinarily in Latine for the gout) is a Greeke name, and signifieth the griefe or maladie of the feet.

Vervaine ſtamped and incorporat with hogs greaſe, is good for the gout: ſo is the root of Sow-bread, the decoction wherof healeth kibed heels, if they be bathed therein: the root of *Xiphion cooleth the hot gout; the ſeed of *Pſyllium doth the ſame: Hemlocke alſo, incorporat with Litharge or hogs greaſe: but above all other, Houſleeke or Sengreene is right ſoveraigne to be applied at the firſt aſſault or fit of the red gout, that is to ſay, when it is occaſioned by a flux of hot humors: and whether it be hot or cold gout, Groundſwell tempered into a liniment with ſwines greaſe, and ſo applied, is a verie fit and convenient medicine: as alſo Plantaine leaves ſtamped, with a little ſalt mixed among: and Argemonia punned in a mortar & applied with hony: moreover, Vervaine reduced into an unguent, is ſingular in that caſe; yea and if the goutie feet be well ſoked in the decoction therof, much eaſe will enſue thereupon: alſo Lappago, an hearbe reſembling *Pimpernell, but that it is fuller of braunches, and tufted more with leaves, which alſo be rough, rugged, and wrinkled, yeelding a juice in taſt more harſh, and in ſmell ſtrong and unpleaſant: as for that of this kind which is *ſoft, they call Mollugo: like unto which (but for the leaves that be more rough in handling) is Aſperugo, whereupon it tooke the name. Now for the gout, let the Patient take every day eleven deniers weight of the juice preſſed forth of the former Lappago in two cyaths of wine: but for this diſeaſe, the moſt excellent remedie and that which rid-deth it quite, is the Sea-weed, which in Greeke they call Phycos Thalaſſion, and in Latin Fucus Marinus; an hearbe like unto Lettuce, and commonly Murets and other ſhell-fiſhes lye bedded upon theſe weeds; which beeing applied before they are dried, doe cure not the gout of the feet onely, but alſo any diſeaſe of all other joynts. Now of this Sea-graſſe ſo named, there be found three kinds: the firſt is broad and large; the ſecond longer, and ſomwhat red; the third hath curled and frizled leaves, which in Candie they do uſe in dying of their clothes; but all are of one and the ſame operation in Phyſicke. *Nicander* was woont to give them in wine, as a countrepoiſon againſt the venome of ſerpents. Moreover, the ſeed of that hearbe which I named Pſyllium, is ſingular good for the gout, if the ſame be well ſteeped in water; ſo that in every hemine of the ſeed there be mingled the quantitie of two ſpoonfuls of Colophonian roſin, and one of frankincenſe. Finally, the leaves of Mandragoras be highly commended in this caſe, if they be ſtamped and incorporat with fried barley groats into a cataplaſme.

* Glader or Flags.
* *i.* Fleawort.
* *Anagallidi*, *Dioſcor.* ſaith *Galio. i.* Cheeſrunnell.
* *Mollis*, ſo readeth *Dodonæus*. Some take all theſe for Tazils.

Chap. xi.

Generall medicines and receits for all the infirmities incident to the Feet, the Ankles, Joynts, and Sinews: Item, the remedies for thoſe diſeaſes which poſſeſſe and trouble the whole bodie. Of the hearbe Mirthryda. Medicines for thoſe that cannot ſleepe: and for the palſie. Of cold fevers: and the ague that is incident to horſes: of the Phrenſie. Of the hearbs Walwort and Houſleeke. Laſt of all, of the Shingles or S. Anthonies fire.

IF the feet be ſwolne about the ankles, the mud that is found in the botome of waters wrought and concorporat togither with oile, is of wonderfull operation to allay the ſame. For the pain in the joynts, or griefe of ſinews, the juice drawne out of Centaurie is paſſing good: in like manner, the hearbe Centauris. As for Betonie, it is comfortable unto the nerves, which run and ſpread behind over the ſhoulder-blades, the ſhoulders, the backbone, the loins and hanches, if it be *taken in drinke, after the manner as it was ordained for the liver. Cinquefoile, is ſoveraigne for the paine of the joynts, if it be applied outwardly: likewiſe the leaves of Mandragoras made into a pulteſſe with parched barley meale; or the root it ſelfe newly drawn out of the ground and ſtamped with the wild cucumber; or elſe boiled in water: for the chaps that appeare in the feet or upon the elbows, the root of Polypodie is ſingular good: for the griefe of the joynts, the juice of Henbane reduced into an ointment with ſwines greaſe, is a proper remedie: likewiſe the juice of the hearbe *Amomum, togither with the decoction: alſo Cotton-weed or Cudwort, boiled in water: or freſh gathered moſſe ſoked in water and bound to the grieved place, and there kept faſt without remooving, untill it be drie: as alſo the root of the Bur called Lappa Boaria, drunke in wine. Sow-bread ſodden in water, cureth the elviſh and angrie kibes beginning to riſe upon the heels, and all other chilblanes and bloudyfals occaſioned by cold. Semblably, Vmbilicus Veneris applied with hogs greaſe, healeth the foreſaid kibed heels: ſo doe Crowfoot leaves, and the juice of Epithymum. Ladanum made into a ſalve with Caſtoreum, and ſo applied, fetcheth out the core of agnels or corns by the roots: the like effect hath Vervaine, if it be laid too with wine.

* *Pota*, otherwiſe *Poſita*, *i.* applied.
* Roſe of Iericho.

A wine. And now that I have run through those maladies which are offensive to every particular member, I purpose to write in the next place of such as occupie the whole bodie: and of the remedies common to them all, which I find to be these ensuing.

And first there presenteth it selfe unto me the noble hearb *Dodecatheos, whereof I have spoken before as a soveraigne remedie for those universall diseases, if it be taken in drinke. Next to it are the roots of all kinds of the Panaces, which are thought to bee excellent, and principally for long and languishing maladies: like as their seed for the obstructions of the bowels and the inward accidents of the guts: for the paines generally of the whole bodie, the juice of Scordium is right commendable, and so is that of Betonie: which hearbe taken in drinke, hath a peculiar propertie to mend the wan and leaden hew of body, reducing it to a more fresh and pleasant colour.

B The hearbe *Geranion, which some call Myrrhis, others Merthrys, is like unto Hemlocke, save that it hath smaller leaves, and a shorter stem, which also is round, of a sweet sent to the nose, and good savour in the mouth; for so we Latines doe describe it: but according to the description of the Greekes, the leaves rather resemble the Mallow, but that they are whiter somewhat, the stalks slender and hairie: *it brancheth out big at the distance of every two handbreadths, howbeit, full of leaves betweene: and among the leaves are to be seene in the top of the braunches and sprigs little buttons or heads like unto Crane bils. Another kind there is of them leafed after the manner of passe-flowers or wind-flowers, but that they be entailed or endented deeper: and a round root it hath fashioned like an apple, which is sweet in tast, and is an excellent restorative for all such as have been weakened and decaied in nature by long sickness: And this I take to bee the

C true Geranion, which is a rare hearbe. A dram weight thereof drunke twice a day [first and last] in three cyaths of wine, is a singular medicine for the phthysick. And in that order it is good for ventosities: and hath the same effect though it be taken raw. The juice of the root is soveraign for the infirmities of the eares. The seed given in drinke to the quantitie of foure drams with Pepper and Myrrhe, cureth the crampe which pulleth the head and bodie all backward. The juice of Plantain if it be drunke, or the hearbe it selfe boiled and so eaten, is holesome for those that be in a Phthisicke. Plantaine eaten with salt and oile in a morning, so soon as a man is awakened, is a great cooler. The same is an ordinarie medicine for those that mislike, and whose meat is not seene upon them, if they take it each other day. Of Betonie and honey there is a liquid confection or lohoch made, which being licked and let downe leasurely, to the quantitie at a time of a good big Bean,

D helpeth those that are in a phthysicke or consumption of the lungs. Also Agarick, if it be drunk to the weight of two oboli in wine cuit, is good in the like case: so is Daucum also taken in wine with Rhaponticke. For the hungrie wormes Phagedænæ (a name in this place signifying an inordinat *disposition, to be alwaies eating and never satisfied, although otherwise I use it for cankerous and corroding ulcers) the Tithymals or Spurges taken inwardly with Sesama seeds, is counted soveraigne. Among the maladies which affect and infest the whole bodie, want of sleepe, or an indisposition thereto, is by most Physicians counted one: For which defect, they shew us these hearbes following, to wit, Panaces, water Betonie, and Aristolochia, which they prescribe unto the patient both for to smell too, and also to annoint his head all over withall. Likewise Housleek called Aeizoon and also Sedum, giving direction to wrap it within a blacke cloth, and so to lay it

E under the pillow or boulster of the sicke person, but in no wise to let him or her know so much. Likewise Oenothera, otherwise named Onuris, is effectuall for this purpose: an hearbe good also in wine to make the heart merrie. It groweth with leaves resembling those of the Almond tree, and beareth flowers like unto Roses. Store of braunches it putteth foorth, and hath a long root, which being dried, senteth much of wine. Of such vertue is this hearbe, that if it be given in drink to the wildest beast that is, it will tame the same and make it gentle. As for the crudities or raw humors lying in the stomacke, which cause loathing and abhorring of meat, Betonie is singular to digest them: the same drunke immediatly after supper, helpeth concoction, namely, if one dram weight of the hearbe be taken in three cyaths of Oxymell: and so it resolveth and scattereth the fumes arising up into the head, occasioned by strong wine. Of the same operation is Agaricke,

F drunke at the end of a meale in hote water. The foresaid Betonie hath the name of a speciall remedie for the palsie: so is Iberis also reputed, as I have shewed once before; the same hearbe reviveth the lims which are benummed and in manner dead. And verely, Argemon is of that vertue, that it discusseth all those cold humors which mortifie any member, and put them in danger to be cut off or launced. The root of that Panaces which I named Heraclia, drunke with the ren-

net

So called, for that it representeth the maiestie of the twelve principall gods and goddesses, called *Majorum gentium*, or *Consentes*, whom the Painims imagined to sit in counsell together with *Iupiter* their President: & these hath *Ennius* comprised in this Distichon. *Juno, Vesta, Minerva, Ceres, Diana, Venus: Mars, Mercurius, Jovis, Neptunus, Vulcanus, Apollo.*

* Hearbe Robart, as some thinke, or the first kind by *Dodoneus*.

* Doves foot, or Momordica.

The Carrot. *βάυκος.

net of a Seale, so as there bee in proportion three parts of the said root to one of the rennet, cureth the falling sickneſſe. And of the same effect is Plantaine, taken in drinke. The said diſeaſe is healed by Betonie, if a dram thereof bee taken in Oxymell: by Agaricke also, to the quantitie of three oboli: and by a drinke made with Cinquefoile. Moreover, Brionium called likewiſe Archezoſtis, wariſheth this infirmitie, but it muſt bee given in Amminean wine. Furthermore, the root of Baccharis dried and beaten into pouder, taken with Coriander in three cyaths of hote water, is a ſoveraign meane to helpe that maladie. *Cudweed made into pouder, and taken with vinegre, honey, or hot water: Vervaine drunke in wine: three *berries of Hyſſope ſtamped and drunk in water for ſixteen daies together: Harſtrang, and the rennet in the maw of a Seale, of each a like quantitie taken in drinke: the leaves of Cinquefoile, if they bee ſtamped and drunke in wine for one and thirtie daies: the pouder of Betonie, to the weight of three deniers, concorporat with one cyath of Sqnilliticke vinegre, and an ounce of Atticke honey: laſtly, two obols of Scammonie, with foure drams of Caſtor, be all appropriat medicines for the falling ſickneſſe. G H

*Centunculus.

*Baccæ. Some read *faſces*, *i.* bunches: but in mine opinion, *cymæ*, *i.* tops or ſpikes, agree beſt to the ſence.

In all *cold agues, if the patient drinke Agaricke in hot water, the fits will be the lighter. And more particularly, the hearbe Sideritis drunke with oile, ſhorteneth the cold fit in a Tertian: ſo doth that *Ladanum which groweth among corn, if it be ſtamped and ſo given. Likewiſe, Plantaine, if the patient drinke the weight of two drams in mead two houres before the fit; or the very juice of the root either after it hath lien a time infuſed, or ſimply ſtamped without any ſuch preparation; yea, and the ſubſtance of the root reduced into pouder, and given in a draught of water, made hot with a gad of ſteele quenched it. Some have appointed in this kind of ague three of thoſe roots, and three cyaths of water preciſely: and the ſame Phyſicians for a Quartane have I preſcribed foure of either: & by their saying, if when Borage beginneth to fade upon the ground, one take out the pith or marow within the ſtem, and whiles he is ſo doing, name withall the ſicke partie, and ſay he doth it for to rid him or her from the ague; and withall beſtow it in ſeven leaves neither more nor leſſe of the ſaid hearb, and hang all tied faſt about the patient before the time that the fit ſhould come, the fever will never returne againe. Alſo a dram of Betonie or Agaricke taken in three cyaths of mead, driveth away any intermittent ague, eſpecially thoſe that begin with *quivering and quaking. Some are wont to give of Cinquefoile three leaves in a Terrian, and foure in a Quartane, and ſo riſe to more according to the period or type of the *reſt: Others ordaine indifferently for all agues the weight of three oboli, with ſome pepper, in mead or honied water. Vervaine verely given in wine as a drench to horſes, cureth them of their feavers: but in K Tertians it muſt bee cut juſt above the third joint where it brauncheth: but for Quartanes at the fourth. The ſeed of both kinds of Hypericon is good to be drunke in Quartans. And the pouder of Betonie dried, is ſingular for the quaking fits: and in very deed the hearbe it ſelfe repreſſeth all ſhivering and whatſoever proceeding of cold. In like manner, Panaces is of ſo hot a nature, that Phyſicians give direction to them who are to travell over high mountaines covered with ſnow, for to drinke it, and annoint their bodies all over with it. Semblably, Ariſtolochia doth withſtand all chilling and through colds. The beſt cure of thoſe who bee in a frenſie, is by ſleepe: and that may bee procured eaſily by the juice of Pucedanum and vinegre together infuſed upon the head by way of embrocation, or by rubbing the ſame with it: likewiſe with the juice of both the Pimpernels. Contrariwiſe, there is more adoe with thoſe that are in a lethargie to awaken them & keepe L them from drowſineſſe: and yet may that be affected ſome ſay by rubbing their noſthrils with the juice of the ſaid *Harſtrang in vinegre. For thoſe that be out of their right wits or beſtraught, Betonie is ſingular good to be given in drinke. Panaces breaketh the carbuncle. Alſo the pouder of Betonie in water, healeth it: or the Colewort with Frankincenſe, if the patient drinke often thereof hote. Some take a burning coale of fire, and when it is extinguiſhed or gone out in the preſence of the patient, with their finger gather up the cindres or light aſhes which ſettle thereupon, and applie them unto the carbuncle: others ſtampe Plantaine and lay it to the ſore. The Tithymall called Characites, cureth the dropſie. Alſo Panaces and Plantaine taken as meat in bole, with this regard, That the patient have eaten ſome drie bread before, without any drinke at all. In which caſe Betonie likewiſe is ſingular, if two drams thereof bee given in as many M cyaths of wine ſimply, or wine honied. Moreover, Agaricke, or the ſeed of Lonchitis, drunke to the quantitie of two Ligulæ or ſpoones full, in water. Flea-wort beeing uſed with wine: the juice of Pimpernels, both the red and the blew: the root of Vmbilicus Veneris in honied wine: the root of Walwort newly drawne out of the ground, ſo that the earth bee onely ſhaken off

without

*Herba Iudaica.

*Horrore, as Quartanes.

*namely Quintans, Sextanes, Septimanes & Nonanes, &c.

Harſtrang.

Or rather with Euphorbium, as ſome have corrected the place.

A without any waſhing at all; in caſe as much thereof as two fingers will comprehend, bee taken in one hemine of old wine hot: the root of Claver or Trefoile drunke in wine to the weight of two drams: Tithymall, named Platyphyllon: the ſeed of Hypericon, and namely that which otherwiſe is called Coris: Chamæacte, which ſome thinke to be Walwort, if either the root be beaten to pouder and miniſtred in three cyaths of wine, ſo the patient have no fever hanging upon him, or the ſeed given in thicke red wine; bee appropriat remedies every one, for a dropſie. In like manner Vervaine, if a good handfull thereof bee boiled in water unto the conſumption of the one halfe. But principally the juice of Walwort is thought to be the meeteſt medicine for to fit this maladie. *i.* Broad leafed.

For the bleach or breaking out in wheales, for ſmall pockes, ſwine pockes, and ſuch like erup-
B tions of fleagmaticke humors, Plantaine is a proper remedie to rid them away: ſo is the root of Sowbread applied with honey. The leaves of Walwort or ground Elder ſtamped, incorporat in old wine and ſo laid too, doe heale the meazils, purples, or red bliſters, which ſome call Boa. The juice of Nightſhade or petie Morell, uſed as a liniment, killeth the itch. The ſhingles and ſuch hot pimples called S. *Anthonies* fire, are cured by nothing better than by Houſleek, by the leaves of Hemlocke ſtamped into an unguent, or the root of Mandragoras. Now the manner of preparing and ordering it thus: Take the ſaid root, drie it abroad in the open aire, like as they doe Cucumbers; but principally let it hang firſt over new wine; afterwards in the ſmoake: this done, ſtampe it and temper it with wine or vinegre. Good it is alſo in this caſe to make a fomentation with wine of Myrtles, and therewith to bath the greeved place. Alſo take of Mints two ounces, of
C ſulphur-vif one ounce, pouder them both, and mingle them together with vinegre, uſe this mixture for the ſaid S. *Anohonies* fire. And ſome take ſoot & vinegre tempered together for the ſame purpoſe. Now of this diſeaſe which wee tearme * S. *Anthonies* fire, there bee many kinds, whereof there is one more daungerous than the reſt, which is called *Zoſter, for that it coveteth to goe round about the middle of a man or woman in manner of a girdle; and in caſe both ends meet together indeed, it is deadly and incurable. To meet with it therefore by the way and to prevent this extremitie, Plantaine is thought to be a ſoveraigne remedie, if it be incorporat with Fullers earth. Alſo Vervaine alone by it ſelfe, and the root of the great Bur. Now for other corroſive ulcers and tettars, it is very good to uſe the root of Vmbilicus veneris with honied wine: Sengreen, the juice of Mercurie alſo with vinegre. *Eriſypelas.* *i.* A girdle, and] it is our ſhingles. *Terra Cimolia.*¶

D

Chap. xii.

For diſlocations or members out of joint. Againſt the Iaundiſe, fellons, hollow ſores called fiſtulaes, tumors, burnes, and ſcaldings. Againſt other diſeaſes. For to comfort the ſinewes, and ſtanch bloud.

The root of Polypodium brought into a liniment, is a proper remedie for any diſlocation. The ſeed of Fleawort: the leaves of Plantain punned with ſome few cornes of ſalt put thereto: the ſeed of Mullen boiled in wine, ſtamped and reduced into a cataplaſme: Hemlocke, incorporat with hogs greaſe. All theſe applied accordingly, doe aſſuage paine and bring downe
E any ſwelling, occaſioned by diſlocation. The leaves of Ephemerum brought into a liniment, are good for any bunches or tumors cauſed by thoſe accidents, if they be taken betimes whiles they may be diſcuſſed and reſolved. Some take it for the May Lillie or Lilly-Convalley.

As touching the Iaundiſe, I cannot but wonder at it, eſpecially appearing as it dooth in the eyes; namely, how the gall ſhould get under thoſe fine membranes and tunicles, lying ſo cloſe couched as they doe. *Hippocrates* hath taught us a rule, That if the Iaundiſe ſhew in a feaver *after the ſeventh day from the beginning thereof, it is a deadly ſigne. Howbeit, I my ſelfe have knowne ſome to have eſcaped and lived ſtill, notwithſtanding that deſperat ſigne. But this is not alwaies a ſymptome incident to an ague, but happeneth otherwhiles without a feaver: and then a drinke made of the greater Centaurie, as I have before ſhewed, doth withſtand and ſtay the courſe ther-
F of. Alſo Betonie riddeth away the Iaundiſe, if the patient doe drinke three oboli thereof in one cyath of old wine. The leaves of Vervaine likewiſe have the like effect, if the ſame quantitie bee drunke foure daies together in one hemine of wine hote. But the ſpeedieſt cure of this diſeaſe, is by Cinque-foile or five leafed graſſe, if three cyaths of the juice bee taken with ſalt and honey in drinke. The root of Sowbread is a ſoveraigne medicine for this infirmitie, if the patient drinke the *Nay rather before the 7 day: for then it is Symptomaticall, and ſignifieth irregular humors: whereas upon the 7, 9, 11, and ſuch Decretorie daies, it is criticall, and] giveth hope of recoverie. As *Hippocrates* himſelfe teacheth. *Aphoriſ.* 62 and 64, *lib.* 4

the weight of three drams: but this care ought to be had, that the roume be hote, and ſo cloſe G
that no wind may come in,for feare of catching cold: and then it will drive out the jaundiſe by ſweat,luſtily. The leaves of Folefoot taken in water: the ſeed of Mercuries,both the male and female,if a cup of drinke be ſpiced therewith,or if it bee ſodden with Wormewood or cich peaſe: the*berries of Hyſſope drunke with water: the hearbe Liverwort,ſo that the patient abſtain from all worts or pothearbes,ſo long as hee taketh it: Capillus veneris given in wine: and the Fullers hearbe in wine honied,be all of them good medicines for the jaundiſe.

Baccæ, rather *cymæ*,i. the tops, as before.

As for the ſores called Fellons or Cats-hairs, they will breed every where in any part of the bodie,and put folke to great anguiſh and trouble who have them, yea, and otherwhiles endaunger their life,eſpecially if they meet with leane and worne bodies. But what remedie? Take the leaves of the hearbe Pycnocomos,let them be ſtamped and incorporat with fried Barley meale, and ſo H
applied, in caſe the ſaid fellons are not drawne to a pointed or ſharpe head. The leaves alſo of *Ephedros brought into a liniment and laid too, doe diſcuſſe and diſſolve them,if they be taken in the beginning.

Hippuris, Horſtaile.

Moreover,you ſhall not ſee a part of the bodie but it is ſubject to the Fiſtulaes,which creepe inwardly and hollow as they goe: but eſpecially, when by the unskilfull direction of Phyſicians, or the leaud hand of chyrurgians there bee an inciſion untowardly made in the bodie. The helpe is to make tents of Centaurie the leſſe,with honey boiled,and put them into the concavitie. Alſo to uſe an injection of Plantaine juice. To applie Cinquefoile with ſalt and honey. Ladanum alſo with Caſtoreum: to lay unto the ſore,Vmbilicus veneris,with deere marow, eſpecially of Stag or Hind,hot. The ſtring or pith of a Mullen root faſhioned ſlender to the forme of a tent put in- I
to the ulcer,or the root of Ariſtolochia in that manner uſed, or the juice of Tithymall conveyed into it,ſerve all to cure the Fiſtula.

All inflammations,biles,& impoſtumes,are healed by a liniment made of Argemonie leaves: So be all hard and ſchirrous tumors,occaſioned by the gathering of humors, with Vervaine or Cinquefoile ſodden in vinegre: with the leaves and roots of Mullen: with Hyſſope applied in wine: with the root of Acorus, ſo that there bee a fomentation withall made of the decoction of the ſaid hearbe: and finally with Houſleeke. In like manner, theſe hearbs before rehearſed do heale bruiſes,hard tumors,or bunches and hollow ſores. The leaves of *Illecebra draw forth any arrow heads and whatſoever ſticketh within the bodie:ſo doe the leaves of Folefoot:the Carot alſo,and the leaves of *Lions paw, ſtamped and incorporat with fried Barley meale in water. The K
leaves of Pycnocomos punned,or the ſeed beaten to pouder,and with Barly meale parched,and ſo reduced into a cataplaſme,are good to be applied to biles and impoſtumes broken & running matter. In like manner the Ragworts are to be uſed.

A kind of Houſleeke.

Our Ladies Mantle.

As touching the accidents that happen in the bones,the root of Satyrion if it be laid outwardly upon them,are thought to worke a moſt effectuall and ſpeedie cure. All cankerous and eating ſores,likewiſe impoſtumes growing to ſuppuration,are healed with the ſea weeds,if they bee applied before they be dried and withered. Alſo the root of marſh Mallow,doth diſſipate and ſcatter all gatherings of humors to an impoſtume,before it be come to an head and to ſuppurat.

Plantaine and the Clot Bur are ſingular for burnes or ſcalds,healing them up ſo cleane without a skar,that a man ſhall not perceive the place: The manner is to take the leaves,ſeeth them in L
water,ſtampe them into a liniment,and ſo to applie them. Likewiſe the roots of Sowbread,togewith Houſleeke:the hearbe it ſelfe Hypericon,which I called before*Corion,have the like effect.

Or *Coris*.

For the infirmities incident to ſinewes and joints,Plantaine is a ſoveraigne hearb,if it be ſtamped with ſalt: ſo is Argemonia punned and incorporat with honey. The juice of Harſtrang is ſingular to annoint thoſe that bee ſprained, ſuch alſo as be ſtretched with an univerſall crampe as if they were all of a peece. For to mollifie the hardneſſe of ſinewes that be ſhrunke up,there is not a better thing than the juice of Ægilops. And to aſſuage their pain,a liniment made with Groundſwell and vinegre, is excellent. For thoſe that be ſprained and troubled with that crampe which draweth their necke backward, it is good to rub and annoint them well with Epithymum; with the ſeed of *S. Johns* wort, which alſo is called Coris, and to drinke the ſame. As for the hearbe M
Phrynion,they ſay it hath vertue to conglutinat and unite ſinewes againe,if they were cut in ſunder,if it be laid too preſently, either ſtamped or chewed in the mouth. For ſuch likewiſe as bee ſpaſinaticke,plucked backward with the crampe, or troubled with trembling and ſhaking of the lims,it is good to give them the root of the marſh Mallow to drinke in mead: And in that maner

Darnell,as ſome thinke.

taken

A taken, it healeth thoſe that be ſtiffe and ſtarke for cold. Finally, the red ſeed of the hearbe Pæonie ſtancheth any flux of bloud, the root thereof hath the like operation. As for Cyclaminos, that is to ſay Sowbread, it ſtaieth any bleeding, whether it bee at the mouth raught up from out of the bodie, or at the noſthrils, whether it run by the fundament, or guſh from the matrice of women. Likewiſe Lyſimachia ſtancheth bloud either in drinke, liniment, or Errhine put up into the noſe. The like effect hath Plantaine ſeed. Cinquefoile alſo both taken inwardly and applied outwardly. Moreover, if the noſe bleed, take the ſeed of Hemlocke, beat it into pouder, mix it with water, and ſo put it up handſomely into the noſthrils. Alſo Sengreene and the root of Aſtragulus. To conclude, wild Hirſe called in Greeke *Iſchæmon and Achillæa, doe ſtay any iſſue of bloud.

* *i.* Stanchbloud, a kind of Yarrow.

B

Chap. xiii.

Of the hearbe Equiſetum: of Nenuphar, Harſtrang, Sideritis, and many more effectuall to ſtanch bloud. Of Stephanomelis and Eriſithale. Alſo remedies againſt wormes and vermine.

HOrſe-taile, named in Latine Equiſetum, and by the Greekes Hippuris, an hearbe which heretofore I diſallowed to grow in any meddowes (and it is eſteemed the very haire, proceeding out of the earth, like for all the world to the haire of an Horſetaile) if it be boiled in a new earthen pot never occupied before, ſo as the pot be brim full when it is ſet on the fire and ſo to continue ſeething, untill a third part be conſumed, doth waſt the ſpleene of lackies & foot-
C men, if for three daies together they drinke one hemine of the decoction at a time: and beſides this charge they ought to have in any wiſe, to forbeare all fat and oilie meats for foure and twenty houres before they begin this diet drinke. In deſcribing of this hearbe, the Greekes do not agree, but are of divers opinions: Some give that name to a certain hearbe with blackiſh leaves reſembling thoſe of the Pine tree; and they report a wonderfull vertue thereof, namely, that if it do but touch a man, it will ſtanch any iſſue of bloud. And as ſome name it Hippuris, ſo others call it *Ephedros, and there be againe who give it the name Anabaſis: becauſe forſooth as they ſay, it climbeth upon trees, and hangeth downe from thence, with many blackiſh ſlender haires in maner of riſhes, reſembling horſe tailes. Small branches it hath full of joints, and few leaves, which be alſo fine and ſmall. The * ſeed that it beareth is round, like unto Coriander; and the root, of a
D woodie ſubſtance: this kind they ſay groweth principally in thickets and groves. An aſtringent and binding power it hath. The juice if it bee conveighed up into the noſthrils, ſtenteth bleeding at noſe, though it guſhed out from thence: it knitteth alſo the bellie, and ſtoppeth a laske. Taken in *ſweet wine to the quantitie of three cyaths, it helpeth the bloudie flix. Vrine it provoketh, the cough it ſtaieth, and cureth ſtreightneſſe of wind when the patient is forced to ſit upright for to draw his breath. It healeth ruptures, and repreſſeth thoſe ſores that love to ſpread and run over the bodie. The leaves are good to bee drunke for the infirmities that offend guts and bladder. A ſpeciall vertue it hath to cure thoſe that be burſten bellied and have their guts ſlipped downe in the bag of their cods. The ſaid Greeke writers deſcribe alſo another horſetaile, by the name of Hippuris, with ſhorter, ſofter, and whiter haires than the former; and they commend it as a ſove-
E raigne hearbe for the Sciatica and for wounds, to bee applied unto the place with vinegre; and namely for to ſtaunch bloud: in which caſe the root of Nenuphar ſerveth very well, if it be ſtamped and laid upon a greene wound. If a man or woman void bloud at the mouth, which doth riſe from the parts below, there is not a better thing than Harſtrang taken in drinke with the ſeed or berries of the Cypreſſe tree. And as for Sideritis the hearb, it is ſo powerfull that way, that it ſtancheth bloud out of hand, if it be applied and kept faſt to the wounds of theſe ſwordfencers that fight at ſharpe, bleed they never ſo freſh: the which effect we may ſee in the aſhes and coales of Fennell-geant: but the Toadſtoles or Muſhroms growing about the root of the ſaid plant, doth the feat more ſurely. In caſe the noſe guſh out with bloud, Hemlocke ſeed alſo beaten to pouder tempered with water and ſo put up, is counted very effectuall to ſtay the bleeding: In like manner
F *Stephanomelis, if it bee applied with water. The pouder of Betonie dried and drunke in Goats milke, ſtancheth bloud iſſuing out of womens breaſts by the neppils. The ſame dooth Plantaine bruiſed and laid too in a pulteſſe. The juice of Plantaine is good to bee given them that vomite bloud. For a bloud that runneth upand downe, breaking out one while here and another while there, a liniment made of a Burre root and a little ſwines greaſe, is commended to be excellent.

Or rather *Ephydros*.

And that is iuſt none.

* *Dulci*: rather *auſtero*, *i.* hard or green wine.

Which ſome take to be *Argentina*, *i.* white Tanſey.

For

For ſuch as bee burſten or have any rupture within, bee plucked with convulſions, or have fallen from on high; Centaurie the greater, the root of Gentian beeing ſtamped into pouder or boiled, the juice of Betonie, bee counted ſingular meanes to recover: and more than that, if a vaine bee broken by overmuch ſtraining the voice, or the ſides. Likewiſe, Panaces, Scordium, and Ariſtolochia taken in drinke, ſerve well for the ſame purpoſe. Moreover, if any bee bruiſed within the bodie, or have been overturned backward and throwne downe, it is good for them to drinke the weight of two oboli of Agaricke in three cyaths of honied wine; or in caſe an ague follow them withall, in honied water: for which purpoſe ſerveth alſo that kind of Verbaſcum or Mullen, the flower whereof reſembleth gold: the root alſo of Acorus. All the kinds of Houſleek, to wit, Prick-madame, Horſe-taile, or Stone-crop: but indeed the juice of the biggeſt is moſt effectuall. In like manner the decoction of Comfrey root and Carot taken raw. There is an hearbe called Eriſithales with a yellow flower, and leafed much after the maner of Brankurſine: the ſame ought to be drunke in wine, as alſo Chamerops in the ſame caſe. As for Irio, it would be given in ſome ſupping: and Plantaine may bee uſed any way, it matters not how: which hearbe hath this good propertie over and beſides, to cure the lowſie diſeaſe, whereof *Scylla* the Dictatour died, who was eaten with lice. A wonderfull thing that in the very maſſe of bloud there ſhould be engendred ſuch creatures to conſume mans bodie. But the juice of the wild Vine called *Vva Taminia, as alſo of Ellebor, is ſoveraigne againſt this foule and filthie maladie, in caſe the bodie be annointed all over with a liniment made of it and oile together. As for the ſaid Taminia, if it be boiled in vinegre, it killeth ſuch vermine breeding in cloths or apparell, ſo they bee waſhed or rubbed therewith.

*He meaneth *Staphiſagre*, although he attribute unto it this wrong name.

Chap. XIIII.

For ulcers and wounds. To take away warts. Of the hearbe Polycnemon.

VLcers as they be of many ſorts, ſo they are cured after divers manners. If they bee ſuch as run and yeeld filthie matter, a liniment or ſalve made of the root of all kinds of Panaces and wine together, are thought to bee a ſoveraigne meanes to heale them. But that Panaces, which they call Chironia, hath a ſingular propertie above the reſt to drie up ſuch ſores. The ſame root beaten to pouder and incorporat with honey, breaketh and openeth any ſwelling impoſtumes. This hearbe tempered with wine, it makes no matter whether you take flower, ſeed, or root, ſo it be applied with Verdegreece or the ruſt of braſſe, healeth any ſores, bee they never ſo deſperat, and principally ſuch ulcers as bee corroſive and eat as they goe. The ſame if it be mingled with fried Barley meale, is good for old feſtered ulcers. Alſo Heraclion, Siderion, Henbane, Fleawort, Tragacanth, and Scordotis, incorporat accordingly with honey, cleanſe the ſaid ſores. As for this laſt named, the very pouder of it alone ſtrewed upon ulcers, eateth away the excreſcence of proud fleſh. *Polemonia healeth thoſe malignant ſores which be called morimals, and are hard to bee cured. Centaurie the greater reduced either into a pouder, and ſo caſt upon the ſore, or brought into a liniment and applied accordingly: the tops alſo of the leſſe Centaurie either ſodden or beaten to pouder, doe mundifie and heale up all inveterat and cankered ulcers. The *tender crops or huskes of *Clymenos, are good to be laid unto freſh and greene wounds. Moreover, the root of Gentian either ſtamped or boiled in water to the conſiſtence of honey, or the very juice thereof, ſerveth very well to bee applied unto corroſive and eating ulcers: like as a kind of Lycium made of it is as appropriat for wounds. Lyſimachia is an excellent wound-hearb, & healeth wounds ſpeedily, if they be taken whiles they be new. Plantaine is a great healer of any ſore whatſoever, but principally of ſuch ulcers as bee in the bodies of women, children, and old folke. If it be *made ſoft and tender at the fire firſt, it doth the cure ſo much the better: and being incorporat in ſome ordinarie cerot, it mundifieth and cleanſeth the thicke edges and ſwollen brims of any ſore, and ſtaieth the canker of corroding ulcers. But when Plantaine is thus reduced into a pouder and ſtrewed upon the ſore, you muſt not forget to cover the ſame with the owne leaves. Moreover, Celendine is ſingular for all impoſtumes and botches, whether they be broken or no, yea, it mundifieth and drieth up hollow ulcers called Fiſtulaes: and for wounds it is ſuch a ſingular deſiccative, that Chyrurgians uſe it in ſtead of Spodium. The ſame beeing incorporat with Hogs greaſe, is excellent to be applied unto them when they be in manner paſt cure and given over by the Chyrurgian. The hearbe Dictamnus taken in drinke, thruſteth out arrow-heads:

*Sauge de bois.

* *Colicuſi.*
*Some take it for water Betonie.

Mollita. Why not *Molita*, [i. ground to pouder againſt the fire] ſince that he uſeth *farina* ſo commonly for the pouder of drie hearbes?

A heads: and in a liniment outwardly, draweth foorth the ends of darts, and any ſpills whatſoever
2 ſticking within the bodie: for which effect, the leafe would be taken to the weight of one obolus in one cyath of water. Next to this in operation, is the other baſtard kind thereof, called Pſeudodictamnum: and there is neither of them both, but is good for to draw all biles & impoſtums that are broken and doe run matter. Moreover, Ariſtolochia is an excellent hearbe to eat and conſume putrified ulcers full of dead fleſh: it mundifieth alſo thoſe that bee foule and filthie, if it be applyed with honey: yea and draweth out the vermin bred of the corruption within them: the calloſities likewiſe and hard excreſcences ariſing in ſores, it fetcheth away: alſo it draweth forth any thing ſticking in the fleſh, eſpecially arrows and the ſpills of broken and skaled bones, if it be laid too with roſin. Of it ſelfe alone without any thing els, it is a good incarnative and fil-
B leth up hollow ulcers with good fleſh: but mixed with the powder of the Floure-de-lis root, and ſo incorporat with vinegre, it is ſingular for to heale up greene wounds. Moreover, for old ſores, Vervaine and Cinquefoile medled togither with ſalt and honey, do make a ſoveraigne ſalve. The roots of the great Clot-bur are good to be laid unto freſh wounds, made by the ſword or any edged tools: but the leaves are better for old wounds, if the ſame be tempered with hoggs greaſe: howbeit this charge ought to bee given, That as well the one as the other, have a leafe of the owne laid over them to cover the whole place. As for *Damaſonium, it would be uſed in theſe caſes, prepared in that manner as it is ordained for the kings evill. And the leaves of Mullen ſerve well for the ſame purpoſe, if they be applied with vinegre or wine. Vervaine is a good hearbe for all ſorts of wounds and ſores, were they overgrowne with calloſities and full of putrefaction. The
C root of Nymphæa Heraclia, healeth perfectly all running and filthie ulcers. In like manner, the root of Cyclamin, [*i.* Sowbread] either alone of it ſelfe, or incorporat with vinegre or honey. The ſame is ſingular good for thoſe wens or impoſtumes that engender within them a certaine matter like unto *fat or tallow. Like as Hyſſope is an appropriat hearb for running ulcers. Sem-
blably *Peucedanum, which is of that efficacie for the healing of greene wounds, that it will draw corruption from the verie bone. The ſame effects have both the Pimpernels: and beſides, they doe repreſſe thoſe cancerous ſores that eat deepe: they ſtay alſo the flux of a rheume to any ſore, which hindreth the healing thereof: they be good alſo for greene wounds, but eſpecially in old bodies. The freſh leaves of Mandragoras newly gathered, incorporat with the maſſe of ſome cerot, are ſingular for impoſtumes and maligne ulcers: like as the root healeth wounds
D beeing made into a plaſtre with honey, or oile. Likewiſe Hemlocke tempered with the floure of fine white wheat, and wrought into a paſt with wine. Houſleeke cureth ſhingles, ringwormes, and ſuch like wild-fires, yea if they grow to be Wolves, and begin to putrifie: like as Groundſwell healeth thoſe ulcers which be given to engender vermin: but the roots of the mountaine Cich, or peaſe earth-nut, are ſoveraigne for greene wounds: and both kinds of Hypociſthis, doe mundifie inveterat ulcers. The ſeed of Pied-de-lion, ſtamped with water, and reduced into a liniment with parched barley groats concorporat all togither, draweth foorth arrow heads: ſo doth the ſeed of Pycnocomon, in the ſame ſort uſed and applied. The juice of the Spurge called Tithymalus Characias, healeth gangrens, cankers, and putrified ſores tending to mortification. The decoction alſo of the braunches, ſodden in oile, with fried barley meale. As for *Ragworts, they
E cure morimals alſo, either drie or greene, ſo they be applied with vinegre and honey: and Oenothera by it ſelfe, healeth thoſe untoward and fretting ulcers, which are the worſe and more angrie for the handling. The Scythians are woont to heale wounds with their hearbe Scythica. And for cancerous ſores, the hearbe Argemonia incorporat with honey, is knowne to be moſt effectuall. When any wound or ſore is *over healed, an Aſphodill root boiled, as I ſaid before, then ſtamped togither with parched barley, and ſo applied, is ſingular good to rectifie that de-
3 fault: but for any ſore or wound whatſoever, Henbane leaves be ſingular. The root of Aſtragalus beaten into powder, are ſoveraigne for ſuch ulcers as doe water much, and be alwaies moiſt: likewiſe the common *Maidenhaire boiled in water: but more particularly, if the skin be newly fretted off by wearing ſome uneaſie ſhoes, there is not a better thing to heale and skin the place,
F than a ſalve made with Vervaine: alſo with hearbe Willow ſtamped; or Nenuphar dried, made into powder, and ſo ſtrewed upon the gall. As for the other Maidenhaire, it is counted better to heale the ſame raw excoriations, if they have continued ſome time, and are growne to be exulcerat. There is an hearb named Polycnemon, like unto wild Origan, howſoever the ſeed reſemble that of Peniroyall: it ſhooteth foorth many braunches, and thoſe knotted and joynted in di-

* *Fiſtula paſtoris*, or, water Plantaine.

* *Steatomata.*

* Hartſtrang.

* *Orobis.*

* *Sanatis*, that is to ſay, when the skar riſeth above the fleſh & is not even with the reſt of the skin: or, if you read *Præſanatis* skinned too ſoon, & healed onely in ſhew and apparence outwardly.

* *Callitrix*, which is *Trichomanes*, or *Capillus Veneris.*

vers places: it beareth in the head certain berries as it were in bunches and clusters odoriferous, G
and as they sent somewhat strong and hot, so the smell is not unpleasant: take this hearbe, chew it with your teeth, and then lay it to any wounds made by the edge of the sword or such like weapon, and so let it lie and remoove it not untill the fifth day, you shall see it to heale excellent well. Camfrey applied unto a greene wound, skinneth it most speedily: so doth Sideritis; as for this hearbe, it should be applied with honey. The seed and leaves of Mullen, sodden in wine & stamped to the forme of a cataplasme, draweth foorth all thorns, spills, and arrow heads, which sticke within the bodie. The like effect worke the leaves of Mandragoras, incorporat with pattched barley meale; and Sowbread roots stamped and mixed with honey. The leaves of Germander punned with oile, are excellent to be applied unto those ulcers which doe corrode the flesh under them and eat forward: like as the Reiks or Sea-weeds. Betonie is a soveraigne hearb for cancerous ulcers: also for the blacke sploches that have continued a long time upon the skin, if there be salt put thereto. Argemonia tempered with vinegre, taketh away werts: so doth the root of Crowfoot, which also is singular good to fetch off with ease, the ragged and fretted nails that be offensive. The leaves of Mercurie, the male and female both, or the juice thereof brought into a liniment, have the like operation. All the sorts of the Tithymals take away any werts whatsoever: so doe they rid the troublesome risings and impostumations like whitflaws about the naile roots, and all flecks, spots, whelks, and specks whatsoever. Ladanum reduceth any skars to looke faire and fresh coloured againe. H

Chap. xv.

Many experiments and approoved receits, for the provoking or staying of womens monethly tearms: for curing the diseases of their matrice: for sending out the birth, or retaining the same within the bodie the full time. Also sundrie devises for to amend the faults that blemish the skin of the face: to colour the haire of the head, or to fetch it off. Last of all, divers medicines for the farcins or scab in foure-footed beasts. I

IT is said, That if a travailer or wayfaring man weare fast tied about him, Mugwort or Sauge, he shall never be wearie nor thinke his journey long. But to come now unto the infirmities of women: The blacke seed of the hearbe Pæonie, is generally good for all their * maladies, if it be taken in mead: the root also is of the same operation, and besides provoketh the ordinary course of their months. The seed of Panaces drunke with wormwood, mooveth their fleurs, and procureth them to sweat: the like effect hath Scordotis either in drink or liniment. A dram of Betonie given to women in three cyaths of wine, helpeth all the maladies incident to their naturall parts, * but specially those that ensue upon their deliverie of childbirth. Achillæa being applied accordingly, staieth the exceſſive flux of their monethly tearms: for which purpose also, it is good for them to sit in a bath made with the decoction of the said hearb: and in this case, to their brests or paps, * there would be laid a plastre of Henbane seed tempered with wine: the root also applied in manner of a cataplasme to their secret parts, is counted soveraigne for that infirmitie: like as Celendine the greater laid unto the foresaid breasts. If the after-birth, when the child is borne, be loth to come away; or if the infant be dead within the mothers wombe, the roots of Panaces applied accordingly to the privie parts, fetch forth both the one and the other. The verie hearbe it selfe Panaces drunke in wine, or outwardly used to the region of the matrice, * cleanseth the same. Sauge de bois taken with wine, expelleth the after-birth; and by a suffumigation, mundifieth the matrice. The juice of Centaurie the lesse, bringeth women to their desired sickenesse, if they drinke it, or foment the parts beneath, therewith. Likewise the root of the bigger Centaurie used after the same manner, appeaseth the pains of the mother. If the same be scraped smooth, and put up into the right place as a pessarie, it draweth away the dead child within her bodie. For the griefe and anguish which women feele in their wombe, there is no better thing than to apply the juice of Plantaine in a locke of wooll: and in daunger of suffocation by rising of the mother, to give it in drinke. But Dictamnus is soveraigne and hath no peere: it provoketh monthly fleurs: it sendeth out the dead child, yea though it lay overthwart and stucke crosse in the birth: for which purpose, the woman must drinke to the weight of one obolus, in water. And verely of such power is this hearbe in such cases, that so long as women goe with child, it must not come within the chamber where they are, for feare it put them to travaile before their time. And not onely in drinke

* In their matrice, as namely, the rising of the mother, &c.

* To wit, the stay of the after-burden, after-throwes, suppression of their purgatiõ, or immoderat shifts, &c.

* Swelled and hard.

* *Purgat*, some read better (in mine opiniõ) *corrigit*, & redu-ceth it into the right place being unsetled and perverted.

G H I K L M

A drinke is it thus effectuall, but alſo in liniment; yea and the verie perfume and ſmoke thereof received in the bodie, will doe the deed. Next to it, there is not a more ſoveraigne hearbe than the baſtard Dictamne, called Pſeudodictamnus: but it muſt bee boiled to the weight of one denier, with pure wine and ſtrong of the grape, and then taken in drinke, it provoketh womens deſired ſickneſſe. And yet Ariſtolochia is many waies good for the infirmities of women: for if there be myrrhe and pepper put thereto, and then either taken in drinke or put in a peſſarie, it draweth downe their fleurs, bringeth forth the after-birth, and fetcheth away the dead infant: it keepeth up and ſtayeth the matrice readie to fall and ſlip out of the body, either in fomentation perfume, or peſſarie, eſpecially the * ſmall kind thereof. But in caſe a woman be in daunger of ſuffocation by the aſcent of the mother, or otherwiſe diſeaſed for want of her monethly purgation, let her
B drinke Agaricke to the weight of three oboli in one cyath of old wine: make a peſſarie of Vervaine incorporat with freſh hogs lard, and apply Calves-ſnout, otherwiſe called Snap-dragon with oile roſat and honey, ſhe ſhall have eaſe and be cured ſpeedily. Semblably the root of Nenuphar, eſpecially that which groweth * in Theſſalie, applied unto the naturall parts of women, eaſeth the paines thereof: and if it be drunke in groſſe red wine, it ſtaieth their ſhifts or immoderat flux of the moneths. Contrariwiſe, the Sowbread root, both taken in drinke and alſo outwardly uſed, provoketh the ſame if they doe ſtay upon a woman. Alſo a decoction thereof, if a woman doe ſit therein, helpeth the accidents of the bladder. Ciſſanthemos taken in drinke, ſendeth out the after-birth, and healeth the maladies of the matrice. The upper root of the Flag or Glader, drunke in vinegre to the weight of one dram, bringeth women to the ordinarie courſe
C of their fleurs. The fume of Harſtrang burnt, fetcheth women againe when they lie as it were ſtrangled and dead in a fit of the mother. Flea-woort taken to the weight of a dram in three cyaths of honied water, provoketh their monethly tearms, but eſpecially it maketh them ſoluble if they were coſtife. The ſeed of Mandragoras cleanſeth the matrice, if a woman take it in her drinke: the juice whereof applied to the naturall parts, provoketh her months and fetcheth away the dead child within her bodie. Againe, the ſeed taken with wine and brimſtone, ſtaieth the immoderat flux of the monthly terms. Crowfoot either drunke or eaten with meat, knitteth the bellie and ſtoppeth a laske: an hearbe otherwiſe (as I have ſaid) of a cauſticke and burning nature, if it be uſed raw; but certeinly, beeing boiled with ſalt, oile, and cumin, a commendable meat. Yellow Carots taken in drinke, doe exclude the after-birth, and provoke womens fleurs with ex-
D ceeding great facilitie. A perfume of Ladanum, ſetteth ſtreight the matrice when it is out of the right place, and turned to a ſide: and for the paine and exulceration thereof, it is of great force either applied outwardly or injected inwardly. Scammonie, either in drinke or cataplaſme, ſendeth forth of the bodie the dead fruit of the wombe. Both kinds of S. *Johns* wort, ſtirreth the iſſue of womens fleurs, onely by an outward application. But above all (in the judgement of *Hippocrates*) * Crethmos paſſeth for that, if either the ſeed or the root be taken in wine. As for the pill or rind thereof, it fetcheth away the after-birth alſo: and drunke in water, it helpeth the ſuffocation occaſioned by the riſing of the mother. The root of * Geranium likewiſe more particularly, is a verie convenient remedie for to bring away the after-birth, and to cure the inflammation of the matrice. Horſetaile hath a ſecret vertue to mundifie the naturall parts of women, ei-
E ther drunke, or applyed outwardly. Knotgraſſe given in drinke, * ſtaieth the inordinat and exceſ-
— ſive voidance of the fleurs: ſo doth the root of marſh Mallow. The leaves of Plantaine, * drive downe the ſame: ſo likewiſe Agaricke in honeyed water. Mugwort ſtamped and incorporat with oile of Ireos, Figs, and Myrrhe, hath the ſame effect, if it bee applied accordingly: The root of which hearbe, if a woman take in drinke, is ſo purgative and will bring her to ſuch a laske, that ſhe ſhall withall exclude the dead infant within her bodie. A decoction made with the braunches of Mugwoort, bringeth downe womens monethly ſickneſſe, and fetcheth away the after-birth, if they ſit therein: and a dram weight of the leaves taken in drinke, is of the like vertue and operation: if they bee but laid unto the belly in manner of a cataplaſme, eſpecially with barley meale, they will doe as much. Moreover, Acoron, both the kinds of Conyza, as alſo
F Sampier, are ſingular good for all the inward griefes and maladies whatſoever of women. Alſo both kinds of Anthyllis drunke in wine, are ſoveraigne for the accidents of the matrice, namely to aſſuage the throws and wrings thereof, and to bring away the after-birth when it ſtaieth behind. A fomentation made with Maidenhaire, is comfortable to the naturall parts of women: like as it hath vertue to cleanſe the ſcurfe and dandruffe, to rid away the white patches appearing

* *Clematis.*

* With the yellow floure.

* Sampier, or Creſtmarine.

*Herb *Robert.*

* *Siſtit.*

*I marvaile how that ſhould be, conſidering thei are aſtringent; unleſſe we have recourſe *ad cæcã proprietatem, i.* to ſome ſecret vertue.

in the skin or haire, and to colour the ſame blacke, if it bee brought into powder, and with oile made into a liniment. Hearbe Robert drunke in white wine, and Hyociſthis in red, doe ſtay the flux of reds or whites. Hyſſope is a ſoveraigne hearbe to open and relax the obſtructions of the matrice cauſing ſuffocation. The root of Vervaine taken inwardly with water, is the beſt thing in the world for all the maladies incident to women, either in their travaile or after their deliverance. To which effect, ſome there be, who togither with Harſtrang mix the graines of the Cypreſſe tree beaten to powder, and give it to drinke in groſſe red wine. For the ſeed of Fleawoort, boiled in water, and laid too warme, doth moderat and qualifie all the violent fluxes of the matrice. Camfrey ſtamped and given in groſſe wine or allegant, bringeth downe the ſickneſſe of women when it ſtaieth upon them. The juice of Scordotis taken to the quantitie of one dram in foure cyaths of honyed water, giveth women ſpeedie deliverance in childbirth: and for that purpoſe, the leaves of Dictamnus are excellent, if they be taken in water: And knowne it is for certaine, that the weight of one obolus of thoſe leaves given to a woman in hard travaile, will preſently cauſe her to be delivered with eaſe, yea though the infant were dead in the belly. The like operation hath the baſtard Dictamnum, but that it worketh more ſlowly: and in this caſe, they uſe to tie the root of Cyclamin about the woman in labour; to cauſe her alſo to drinke Ciſſanthemos; yea and the powder of Betonie in honyed water. As for Arſenogonon & Thelygonon, they be two hearbs, bearing certaine grapes or berries like to olive bloſſoms, but that they be more pale; and white ſeeds or kernels within, reſembling thoſe of white Poppie. If a woman drinke Thelygonum, ſome ſay, ſhee will thereupon conceive a maid-child. Arſenogonon differeth from the other in nothing but in the ſeed, which commeth neare unto that of the Olive: and (forſooth) if ſhe take this hearbe in drinke, ſhee ſhall have a man-child; beleeve it who that liſt. Others there be, who ſay, that both the one and the other be like unto Baſill; and that Arſenogonon carieth a double ſeed knit togither like as they were two genetoirs.

That kind of Houſleeke which I called Digitellus, is ſingular for the diſeaſes incident to womens breaſts. Groundſwell bringeth abundance of milke into womens paps, if they drinke it in wine cuit: ſo doth Sowthiſtle ſodden in frumentie. The grape called Bumaſtos, taketh away the *haires about the nipples of nources breaſts, which ſpring ſometime after they have once borne children: which alſo otherwiſe is very good to cleanſe the skales, and ſcurfe in the face, and to ſcoure away other ſpots and pimples ariſing upon the skin. Gentian, and Nymphæa called Heraclea, the root alſo of Cyclamin, riddeth all ſuch cutanean ſpecks and blemiſhes. The graines of wild Carawaies, called Cacalia, incorporat in wax melted or made liquid, lay the skin of the face plaine and even, and ſmooth all wrinckles. The root of Acorum, ſerveth likewiſe to purifie the skin from all outward deformities. Hearbe Willow giveth the haire of the head a yellow colour. Hypericon, which alſo is named Corion, dieth it blacke: likewiſe doth Ophrys, an hearbe growing with two leaves and no more, like unto jagged Beets or Coleworts. Alſo Polemonia ſetteth a blacke colour upon haire, if it be boiled in oile. As for depilatorie medicines, which are to take away the haire from any part, the proper place to treat of them is indeed among thoſe that pertaine eſpecially to women: but now adaies men alſo are come to it, and uſe ſuch deviſes as well as women. The moſt effectuall of all others be they accepted, that are made of the hearbe Archezoſtis. The juice of Tithymall is likewiſe verie good to fetch off haires: and yet there be ſome, who pluck them out firſt with pinſers, and then with the ſaid juice incorporat with oile, rub the place often in the hot ſun. Finally, Hyſſope tempered with oile into a liniment, is excellent to heale the mange or ſcab in four-footed beaſts: and Sideritis hath a peculiar vertue for to cure ſwine of their ſquinſies or ſtrangles. Now is it time to purſue all other kinds of hearbs which remaine behind.

* Some thinke this is meant of hairs within the paps, which ſhould be ſwallowed downe by chãce in a cup of drinke, and ſo rankle in the breaſt, &c. a diſeaſe called by *Ariſtotle*, *Trichia*. And *Rondeletius* is of an opinion, that ſome ſuch thing reſembling an haire may breed within the breſt, of putrified humours or corrupt milke. But it ſeemeth by that which followeth, that *Plinie* meant no ſuch matter, but rather ſome outward eye-ſore.

THE

THE XXVII. BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

¶ The Proëme.

Chap. I.

CErtes, the farther that I proceed in this discourse and history of mine, the more am I forced to admire our fore-fathers and men of old time: for, considering as I doe, what a number of Simples there yet remaine behind to be written of, I cannot sufficiently adore either their carefull industrie, in searching and finding them out; or their liberall bountie, in imparting them so friendly to posteritie. And verely, if this knowledge of Hearbs had proceeded from mans invention, doubtlesse I must needs have thought, that the munificense of those our auncestors had surpassed the goodnesse of Nature her selfe. But now apparent and well knowne it is, That the gods were authors of that skill and cunning, or at leastwise there was some divinitie and heavenly instinct therein, even when it seemed to come from the brain and head of man: and to say a truth, confesse we must, That Nature (the mother and nource of all things) both in bringing forth these Simples, and also in tevealing them with their vertues to mankind, hath shewed her admirable power as much as in any other worke of hers whatsoever. The hearbe Scythica is brought hither at this day out of the great fenns and meers of Mœotis, where it groweth: Euphorbia commeth from the mountaine Atlas, farre beyond *Hercules* pillars and the streights of Gibraltar, and those are the very utmost bounds of the earth: From another coast also, the herb Britannica we have, transported unto us out of Britaine, and the Ilands lying without the continent, and divided from the rest of the world; like as Æthiopis out as far as Æthiopia, a climat directly under the Sun, and burnt with continuall heat thereof: Besides other plants and drugs necessarie for the life and health of man, for which merchants passe from all parts too and fro, and by reciprocall commerce, impart them to the whole world; and all by the meanes of that happie peace which (through the infinit majestie of the Romane Empire) the earth enjoyeth: in such sort, as not onely people of sundrie lands and nations have recourse one unto another in their trafficke and mutuall trade, but high mountains also and the cliffes surpassing the verie clouds, meet as it were togither, and have means to communicat the commodities, even the verie hearbs which they yeeld, one to the benefit of another: Long may this blessing hold, I pray the gods, yea and continue world without end: for surely it is their heavenly gifts, that the Romans as a second Sun should give light and shine to the whole world.

Chap. II.

¶ *Of the poison Aconite, and the Panther which is killed thereby.*

AConite alone, if there were nothing els, is sufficient to induce any man to an endlesse admiration and reverence of that infinit care and diligence which our auncients emploied in searching out the secrets of Nature; considering how by their means we know there is no poison in the world so quicke in operation as it, in so much as if the shap or nature of any living

creature of female sex be but touched therewith, it will not live after it one day to an end. This G
was that poison wherewith *Calpburnius Bestia* killed two of his wives lying asleepe by his side, as
appeareth by that challenge and declaration which *M. Cæcilius* his accuser framed against him.
And hereupon it was, that in the end of his accusatorie invective, he concluded with this bitter
speech, That his wives died upon his finger. The Poëts have feigned a tale, That this herb should
be engendred first, of the fome that the dog *Cerberus* let fall upon the ground, frothing so as hee
did at the mouth for anger when *Hercules* pluckt him out of hell: and therefore it is forsooth,
that about Heraclea in Pontus (where is to be seen that hole which leadeth into hell) there grow-
eth Aconit in great plenty. Howbeit, as deadly a bane as it is, our forefathers have devised means
to use it for good, and even to save the life of man: found they have by experience, that beeing
given in hot wine, it is a countrepoison against the sting of scorpions: for of this nature it is, that H
if it meet not with some poison or other in mens bodies for to kill, it presently setteth upon them
and soone brings them to their end: But if it encountre any such, it wrestleth with it alone, as ha-
ving found within, a fit match to deale with: neither entreth it into this fight, unlesse it find this
enemie possessed alreadie of some noble and principall part of the bodie; and then beginneth
the combat: A wonderfull thing to observe, that two poisons, both of them deadly of themselves
and their own nature, should die one upon another within the bodie, and the man by that mean
only escape with life. Our aunceſtors in times past, stayed not thus, but found out and delivered
unto us proper remedies also for wild beasts; and not so contented, have shewed meanes how
those creatures should bee healed which are venomous unto other: for who knoweth not, that
scorpions if they be but touched with Aconite, presently become pale, benummed, astonied,
and bound, confessing (as it were) themselves to bee vanquished and prisoners: contrariwise, let I
them but touch the white Ellebore, they are unbound and at libertie againe; they recover (I say)
their former vigor and vertue: whereby we may see, that the Aconite also giveth the bucklers to
enemies twaine, pernicious poisons both; the one, to it selfe, and the other to all the world.
Now if haply any man should say, That the wit and head of man alone could possibly compasse
the knowledge of these things; surely hee should shew therein his ingratitude and impietie unto
the gods, in not acknowledging their beneficence. The people about Heraclea, for to kill the
Panthers which breed in those parts, use to rub with Aconite certaine gobbets of flesh, which
they doe lay about the mountains as a bait and bane for them: and unlesse by this means they
did destroy them, no doubt they would fill the whole countrey; which is the cause that some call K
it Pardalianches, *i.* Libard-bane. But they again on the other side, presently have recourse to the
excrements of a man, as I have before declared, the only countrepoison wherby they save them-
selves. Who doubteth now, but the knowledge of this secret came first to them by meer chance?
and considering that it is not possible to render a reason of the nature and usage of such wild
beasts (and whensoever we see the like to fall out, wee count it still a new and straunge accident)
we must needs attribute the finding out thereof, to Fortune.

Chap. III.

That of all Creatures and Inventions in this life, the Author is a God.

L

THis Chaunce and Fortune then, by means whereof we attaine to so many inventions that
we have, is a divine power, and no lesse indeed than a God: by which name also we under-
stand and call that great mother and mistresse of all things, dame Nature: and surely, con-
sidering that conjecturall it is and doubtfull, Whether these wild beasts come by this knowledge
day by day at a venture, or were endued naturally at the first with that perceivance? wee have as
great reason to attribute a divinitie and godhead to the one, as the other. Well, be it Chaunce,
or be it Nature, that hath thus ordered the matter, certes a great shame it had been, that all other
creatures should have knowne thus (as they doe) what is good and profitable for them, and man
onely remaine ignorant. But such was the industrie and goodnesse of those aunceſtors of ours
in times past, that they not only devised means but also delivered to posteritie, how this veno- M
mous hearbe Aconitum might be most safely and commodiously mingled in those collyries and
medicines which be ordained for the eyes: An evident argument and plaine proofe, I assure you,
that there is nothing so bad but it hath some goodnesse in it, and may be used well. And therfore
dispensed withall I looke to be, if I who hitherto have written of no poisons, put downe the de-

scription

A scription thereof; to the end that a man may know it, and by knowing, take heed and beware. This hearb hath leaves, resembling Cyclamin or the Cucumber, in number no more than four, and those toward the root in some sort rough and hairie. The root but small, and the same like unto a sea crabfish: And therefore some have named it Cammaron: wheras others, for the reason before shewed, call it *Thelyphonon. And for that the root doth turne and crooke inward in manner of a Scorpions taile, there be that give it the name Scorpion. There wanted not others who chose rather to call it *Myoctonon, because with the very sent it is able to kill mice and rats a great way off. It groweth naturally upon bare and naked rockes, which the Greekes call *Aconas: which is the reason (as some have said) why it was named Aconitum. And for that in the place where it groweth or neare unto it, there is no mould, nor so much as any dust found for to
B give it nourishment, some have thought it tooke the name thereupon. Yet there bee others who assigne another cause of that denomination, to wit, for that it is as forcible and as speedie in working the death of those whome it toucheth, as the hard stone or ragg in turning or wearing the edge of any yron toole; for no sooner commeth it near unto the bodie and is applied unto it, but the quicke operation is sensibly found.

i. Femalebane

* or *Myophonon*

Chap. iiii.

Of Æthiopis, Ageraton, Aloë, Alcea, Alypon, Alsina, Androsace, Androsæmon, Ambrosia, Anonis, Anagyron, and Anonymon.

C THe leaves of Æthiopis are great and many in number, hairie also neare unto the root, and otherwise correspondent to those of Mullen. It riseth up with a foure-cornered stem, rough in handling, and after the manner of the maine stalke of the Clot-Bur, having many concavities or holes like arme-pits in the grafting of the braunches to the said stem. It beareth seeds like unto Ervile, which ordinarily grow double two by two, and are white. The roots be many, and those long, full and well nourished, soft, and clammie in tast: being dried, they wax blacke and grow hard withall, in such sort, as a man would take them for horns. They grow ordinarily in Æthyopia, also upon the mountaine Ida in the region of Troas, and in Messenia. The right season to gather these roots, is in Autumne; and then they ought to bee laid a drying in the Sun for cer-
D taine daies together, to keepe them from moulding. Being taken in white wine, they helpe the infirmities of the matrice: And the decoction thereof drunke, is good for the Sciatica, the pleurisie, and the hoarsenesse in the throat. But that which commeth out of Æthyopia is counted best and hath no fellow, for it worketh presently.

As for Ageraton, it is an hearbe of the Ferula kind, growing up to the height of two spans, like unto Origanum, but that the flowers resemble buttons or brooches of gold. The fume of this hearbe when it burneth, provoketh urine and mundifieth the matrice, especially if a woman sit in a bath thereof, and do foment the naturall parts therewith. The reason of the name Ageraton, is this, because the flowers continue very long before they seeme to fade and wither.

Ab α, sterētica, & γῆρας, old age.

Aloë is an hearbe which hath the resemblance of the sea-oinion, but that it is bigger and the leaves be more grosse and fat, chamfered or channelled biais all along: the stem that it beareth,
E is tender, red in the middest, not unlike to Anthericon: one root it hath and no more, which runneth directly deepe into the ground in manner of a big stake: strong it is to smell unto, and bitter in tast. The best Aloe is brought out of India: but there groweth good store thereof in Asia, howbeit of no use, but that they lay the leaves fresh unto greene wounds; for they doe incarnat and healewonderfully, like as their juice also. And for that it is such an excellent woundhearb, folke use to set and sow it in barrels or pipes pointed beneath and broad above, like as they do the greater Housleeke. Some there bee who for to draw a juice or liquor out of it, stay not untill the seed be ripe, but cut the stem for that purpose: others make incision also in the leaves. Moreover, there is otherwhiles found in Aloë a certaine liquid gum issuing of it selfe, and sticking fast to the stem thereof: and therefore they hold it good to pave or ram the ground hard all about the
F place where Aloe groweth, that the earth should not drinke up the liquor which distilleth from it. *Some have written that in Iurie above Ierusalem, higher into the countrey, there is a certaine minerall Aloe to be found, growing in manner of a mettall within the ground: but there is none worse than it, neither is there any blacker or moister. If you would know the *best, chuse that which is fat and cleare, of a red colour, brittle and apt to crumble, close compact in manner of a liver,

Petronius Niger, as *Dioscorides* saith in his præface.

* It seemeth that he meanes here the concreted iuice thereof, which we also do call Aloe.

a liver, easie also to melt and resolve. If you see any that is blacke, hard, sandie, or grittie (a thing G
which may soone bee knowne betweene the teeth in tasting of it) the same is to bee rejected for naught. Many there be who do sophisticat it with other gums and the juice Acacia. Aloë is of an astringent nature, serving to make thicke, to close fast, and gently to heat any part of the bodie. Much use there is of it in many cases, but principally to loosen the bellie: being the only purgative medicine that is comfortable to the stomacke, and strengtheneth it, so farre is it from offending the same by that laxative vertue or any contrarie qualitie that it hath: And for this purpose the ordinarie dose to bee given in drinke, is one dram. But when the stomacke is feeble and will keepe nothing, the manner is to take the quantitie of one spoonefull thereof, in two cyaths of water either warme or cold, twice or thrice in a day by turns, pausing some space between as need requireth, and as the patient shall find expedient. Moreover, if occasion bee to purge the bodie H
throughly, Physicians use to give three drams thereof, and not above. And the better will it work if it be taken presently before meat. If the head be rubbed or annointed therewith and some austere or astringent wine, against the haire and in the Sunne, it retaineth the haire that is readie to fall. A liniment made of it together with vinegre and oile Rosat, applied unto the forhead & temples in manner of a frontale, easeth the headach: so doth it also, if by way of embrochation it be destilled from aloft upon the head in a more thin and liquid substance. A very convenient & singular medicine it is to heale all the diseases incident to the eyes, but especially for the itch and skab rising in the eyelids. Also when the skin looketh black and blew under the eyes, or otherwise be marked by occasion of some bruise, it taketh them all away, if it be applied thereto with hony: and namely that which commeth out of Pontus. It is a proper remedie for the amygdales, the I
gums, and all the ulcers of the mouth. Taken to the weight of a dram in water, it staieth the spitting and voiding of bloud upward, if it be not excessive: but in case it be violent and immoderat, it ought to be drunke in vinegre. The flux of bloud in wounds, or the bleeding in any part whatsoever it stancheth, either applied by it self alone or els with vinegre. In other respects also it is right soveraigne for wounds, a great healer, and that which uniteth and skinneth quickly. A singular remedie it is to be either cast upon the ulcers of a mans yard, the swelling piles, the rifts & chaps of the seat: in plaine drie pouder by it selfe alone, or els to be applied thereto with wine or with cuit, according as the greefe requireth to bee mitigated or represſed. Moreover, it gently staieth the immoderat flux of bloud by the Hæmorrhoids. And in a clyster it is excellent for to heale the exulceration of the guts in the bloudie flix. Also it is very good and wholesome for those K
who hardly digest their meat, to drinke it a prettie while after supper. And for the Iaundise it is singular to take the weight of three oboli thereof in water. It is good to swallow pils of Aloë either with boiled Hony or Turpentine for to purge the guts and inward bowels. And a salve made therewith, taketh away the whitflawes and impostumations about the naile roots. For eye-salves and other ocularie medicines, it ought to be washed, that the most sandie and grosse parts thereof may settle to the bottome and be separated from the purer substance: or els it ought to be torrefied in an earthen vessell, and plied continually with stirring with a quill or feather, that it may be burnt and calcined equally.

Touching Alcæa, it is an hearbe bearing leaves like unto Vervaine, which also is called Peristereon, rising up with three or foure stems, well garnished with leaves, and carying flowers in L
manner of Roses: it putteth forth for the most part six white roots, and those a cubit long, not directly, but crooked and bending bias. It groweth ordinarily in battle grounds, and such as stand somewhat upon water. The roots principally doe serve in Physicke, which being taken with wine or water, doe cure the dysenterie or bloudie flix, stop a laske, and knit those that are burst inwardly upon some violent straine or convulsion.

As for Alypon, a prettie hearbe it is, shooting up with a slender stem adorned with little soft and tender heads, not unlike to the Beet, quicke and sharpe in tast, biting exceedingly and burning, howbeit clammie to the tongue. Taken in mead with a little salt, it maketh the bodie soluble. The least dose that is given therof is two drams, from which they arise to four, which is counted a reasonable and indifferent potion: but never exceed the weight of six. And ordinarily this M
purgation is taken by them that have occasion to use it, in the broth of a Cock, Capon, or Pullet.

* Chickweed. * i. Mouse ear. * ἄλσος, a grove.

*Alsine, which some call *Myosoton, is an hearbe growing among *groves, whereupon it tooke that name Alsine. It begins to put forth and appeare above ground about midwinter, and by midsummer it is dried away: when it traileth and creepeth upon the ground, the leaves doe

represent

A repreſent the eares of little mice. But another hearbe there is, as I will ſhew hereafter, which more fitly and properly in that regard may be called *Myoſotis. Surely this might bee taken well ynough for *Helxine, but that the leaves be ſmaller, and thoſe leſſe haitie. It groweth uſually in gardens, and moſt of all upon walls: When it is ſtamped or bruiſed, it ſenteth of a Coucumber. Commonly uſed it is in cataplaſmes for to be applied unto impoſtumes and inflammations: and emploied it may be in all thoſe caſes whereunto Parietarie ſerveth. For the ſame effect they have both, but that Chickweed is weaker in operation. And this particular propertie it hath by it ſelfe beſides, to ſtay the flux of waterie humors into the eyes: alſo to heale all ulcers, and thoſe eſpecially which are in the privie parts, being applied thereto in a pulteſſe with Barley meale. The juice thereof is good to be dropped or poured into the eares.

*The right Mouſe-eare.
*Parietarie of the wall.

B Androſaces is a *white hearbe, bitter in taſt, without any leaves, but in ſtead thereof it hath certaine little huskes or cods hanging by ſmall bents, and thoſe containing ſeed within them. It groweth along the ſea ſide, and moſt of all upon the coaſts of Syria. The cods beeing ſtamped or boiled in water, vinegre, or wine, are good to be given (to the weight of two drams) unto them that are in a dropſie, for they provoke urine mightily. It ſerveth alſo in the cure of the gout, either taken by the mouth, or applied outwardly in a liniment. Of the ſame operation is the ſeed alſo.

*Alba. Haply *Plinie* hath tranſlated λευκάκαρφος for λεπτόκαρφος in *Dioſcor.* which is, having ſlender ſtalkes like ruſhes.

Androſæmon, or as ſome call it Aſcyron, is not unlike to Hypericon, whereof I have alreadie ſpoken: but that the ſtalkes be bigger, ſtand thicker together, and are more enclining to red: the leaves bee white or grey, faſhioned like unto thoſe of Rue: and the ſeed reſembleth that of blacke Poppie: cruſh or bruiſe the upmoſt crops or heads thereof, they yeeld from them a bloudie juice: in ſmell it ſenteth like unto roſin: and is found ordinarily growing in vineyards. The
C proper time to gather this hearbe is in mid Autumne, and ſo to hang it up a drying. The maner is to ſtampe the hearbe, ſeed and all, for to purge the bellie: wherof they drinke either firſt in the morning or laſt after ſupper, the weight of two drams in mead, wine, or ſheere water, ſo that the whole draught of the potion be a full ſextar and not above. Properly it doth evacuat choller: and is principally good for the Sciatica: but the morrow after the patient ought to ſwallow downe a dram weight of the Capers root mixed with roſin: and then after pauſing foure daies between, to doe the like again: After which courſe of purging, if the patient be of a ſtrong complexion, he may drinke wine; otherwiſe, thoſe of a weaker conſtitution ought to forbeare, and drinke water. Excellent good it is for all gouts of the feet, and for burnes, if it be applied unto the place, and a
D good vulnerarie hearbe beſides, and ſtancheth the bleeding of wounds.

Ambroſia is a name that keepeth not to any one hearbe, but is common to many. Howbeit, the true Ambroſia runneth up from the root into one ſmall ſtem, which notwithſtanding brancheth thicke, riſeth to the height of three ſpans or thereabout, and ordinarily is one third part, ſhorter than the root: & the leaves be like Rue. Toward the foot of the ſaid ſtem it bringeth forth certaine little grapes with graine or ſeeds within, and thoſe have a ſent of wine, and hang downe from the branches of the ſaid hearb: for which cauſe ſome there be who call it Botrys, although others give it the name Artemiſia. The people of Cappadocia uſe therwith to make themſelves chaplets to weare upon their heads. This hearbe is much uſed in thoſe accidents that require to be diſſolved and ſent out by the pores of the skin.

E Anonis (which ſome chuſe rather to call Ononis) is an hearbe full of braunches like unto Fenigreeke, but that it ſpringeth thicker from the root, brauncheth more, and is more hairie: of a pleaſant ſmell and prickie, after the Spring. Many uſe to keepe it condite in pickle. Being applied to any ulcer whiles it is freſh and greene, it eateth away and conſumeth the excreſcence of proud fleſh in the brims or edges thereof. The root is good for the paine of the teeth, if it bee ſodden in vinegre and water mingled together, and the mouth waſhed withall: the ſame taken in drink with honey, expelleth gravell and ſtone: boiled in Oxymell to the conſumption of the one halfe, it is a ſingular drinke for the falling ſickneſſe.

Reſta-bovis. Reſt-harrow or petie Whin.

Anagyros, which ſome call Acopos, is an hearbe which brauncheth thicke, of a ſtrong and ſtinking ſmell: it beareth flowers like unto thoſe of Beets: in certaine cods like hornes, which bee
F of a good length, it bringeth foorth ſeed reſembling kidneies in ſhape, the which in harveſt time becommeth hard. The leaves are ſingular good to be laid upon inpoſtumat ſwellings: they ſerve alſo for women which be in hard travell with child, to be hanged or tied faſt about them; with this charge, that preſently they be removed after they are delivered. But if the child be dead & ſticke ſtill in the matrice, or in caſe the afterbirth remaine behind, and will not come away after the in-

fant

fant is borne: or if a woman desire to see her monthly sickness,it is good to drink a dram weight of the leaves in wine cuit.And in that manner they are given to those who bee short winded: but in old wine against the sting of the venomous spiders Phalangia. The root is singular to bee put to those plasters which either doe resolve or maturat any impostumed place. The seed chewed, staieth immoderat vomits. G

*Some take it for Bugle or Selfe-heale. *Nameless.

*Anonymos,finding no name to be called by,got therupon the name*Anonymos. A plant this is brought out of Scythia unto us;highly commended by *Hicesius* a Physician of great name and authoritie,also by *Aristogiton*,for an excellent vulnerarie,if it be bruised or stamped in water and so applied: but taken inwardly in drinke, it is good for womens breasts and the precordiall parts about the heart,if they have gotten a stripe,or be bruised: also for such as reach up bloud. Some have ordained a vulnerarie drinke to be made therof for those that be wounded.But what is said moreover as touching this hearbe,I hold meere fabulous: and namely,that if two peeces of yron or brasse bee put into the fire and burne together with this hearbe, fresh and new gathered,they will souder and joine againe. H

Chap. v.

Of Erith or Goose grasse. Of the Clot-Bur. Of *Ceterach. Of Asclepias and Aster or Bubonium. Of Ascyrum or Ascyroides. Of Aphace, Alcibium, and Alectorolophus.

*or Scolopendrium.

ERrith is by some called in Greek Aparine, by others Omphalocarpos and Philanthropos. I An hearbe given to be full of braunches,rough and prickly,carying five or six leaves growing round together about the said branches in order like a starre,and a pretie distance there is betweene every of these roundles.The seed is round,hard, hollow, and sweetish. It groweth in corne fields,in gardens,and meddowes: rough it is,that it is readie to*catch hold of folks cloths as they passe by,and to sticke unto them. An effectuall hearbe against serpents,if a dram of the seed be drunk in wine: also for them who are pricked with the spiders Phalangia.The leaves have a singular vertue to represse the abundant flux of bloud out of wounds,if they be outwardly applied: like as the juice hath a speciall propertie to helpe the infirmities of the eares,beeing dropped or poured into them.

* Whereupon they cal it *Philanthropos*, a lover of man.

Arction,which some rather name Arcturus,is like in leafe to the great Mullen or Taperwort, K but that it is more rough: the stem tall and soft,and the seed resembling Cumin.It groweth ordinarily in stony grounds with a root tender,soft,& sweet.Being sodden in wine,it easeth the toothach,so that the patient hold the decoction in his mouth.For the Sciatica & strangurie it is good to be taken at the mouth in wine: and outwardly applied,it healeth burns and cureth kibed heels: In which cases the root is much commended, if together with the seed it bee stamped with wine, and a fomentation made with the decoction thereof.

As touching Asplenum,some there be who call it Hemionion: an hearb putting forth many * *Trientalibus.* leaves*foure inches long: the root is given to have crankes and holes, and those full of mud or durt:much what doe the leaves grow like to Fearne: the root is white and rough. It beareth neither stalke,stem,nor seed.It delighteth to grow among rockes and stones, upon wals standing in L the shade,and in moist grounds.The best is that which we have out of Candie. It is commonly said,that if the decoction of the leaves boiled in vinegre be drunke fortie daies together, it wasteth the swelled spleene.The same may be applied in a liniment for that purpose,and so also they do stay the excessive yex or hocket. This hearbe would not be given to women,for it causeth them to be barren.

Asclepias beareth leaves resembling Ivie,long braunches,many small roots, and those odoriferous: howbeit the flowers have a strong and rank stinking smell with them,the seed much like to the Axvitch.It loveth to grow upon mountaines.The roots of this hearbe not only taken inwardly in drinke,but also applied outwardly in a liniment, doe ease the wrings of the bellie, and resist the sting of serpents. Aster, is by some named Bubonium, for that it is a present remedie M for the tumours rising in the share. This hearbe putteth up a small stem, with two or three leaves somewhat long. In the top thereof it beareth certaine little heads environned with spokie leaves, and those disposed round in manner of a starre.Taken in drinke,it is thought to bee a preservative against the venome of serpents.But to make a medicine for the share beforenamed,

it

A it must(they say)be gathered with the left hand: and then kept fast bound neare unto the middle or girding place of the patient. And surely it helpeth the Sciatica, in case it be tied sure to the affected place.

Ascyron and Ascyroïdes, be hearbs resembling one another, and both like unto Hypericon: howbeit that which is named Ascyroïdes, hath the bigger braunches, and those streight and direct, much after the manner of Fennell and such like, red throughout: and in the top thereof appeare little heads or knobs, of a yellow colour. The seed contained in certain pretie cups, is smal, blacke, and gummie: bruise the said tops or knobs betweene your fingers, they seeme to staine them with bloud; which is the cause that some call this hearb* Androsæmon. The seed is singular for the Sciatica, namely if the patient drinke two drams weight thereof in a sextar of Hydromel,
B that is to say, mead or honied water: for it looseneth the bellie and purgeth choller. A liniment made therewith, is much commended for a burne.

i. Mans bloud

Apace is an hearbe which hath very fine and small leaves: and a little taller it is than the Lentill: but larger cods it beareth, wherein lie three or foure seeds, blacker, moister, and smaller than the grains of the said Lentill. It groweth upon corne lands. More astringent it is by nature than the Lentill, and bindeth stronger; for all other matters it worketh the same effects. The seed boiled, staieth vomits and laskes.

Touching *Alcibion, what manner of hearbe it should be, I never could yet find in any writer. But they give direction to stampe the roots and leaves thereof, and so in a cataplasme to applie them unto any place stung with serpents, and to drinke them also. Now they prescribe for the
C drink, To take of the leaves one good handfull, and to stampe them, and so to give them in three cyaths of meere wine full of the grape: or of the root three drams weight, with the like measure of wine.

**Plinie* hath forgotten himselfe, considering that in the 22 booke and 21 chapter, he describeth it (according to *Dioscorides*) to be like in root and leafe to Orchanet, &c. and there he nameth it *Alcibiadion.*

Alectorolophos in Greeke, called by us in Latine Crista Galli, *i.* Cocks-combe, hath leaves for all the world resembling the creast or combe of a Cocke, and those in number many: a slender stem and blacke seed, enclosed within certain cods. A soveraign hearb it is for them that cough, if it be boiled with bruised beanes, and taken in manner of an electuarie with honey. It scattereth the cloudie filmes that trouble the eyesight; and the manner is to take the seed whole and sound as it is, and to put it into the eye: it is nothing offensive nor troubleth that part one whit, but gathereth to it selfe all those grosse humors which impeached the sight. And in very truth, this seed
D whiles it is within the eye chaungeth colour, and being blacke before, beginneth to wax white; it swelleth withall, and in the end commeth out of the eye by the owne accord.

Chap. VI.

Of Alum.

THe hearbe which we name in Latine Alum, the Greekes call Symphytum Petræum, as if one would say, Comfrey of the rock: And very like it is to wild Origan. The leaves be small, and three or foure braunches spring immediatly from the root: the tops whereof resemble those of Thyme. Much branched it is otherwise, odoriferous in smell, and sweet in tast: it draweth
E downe water into the mouth and causeth spitting. The root which it putteth forth is long & red. This hearbe taketh pleasure to grow in stonie places among rockes: in which regard it tooke the addition of the name Petræum. Singular good it is for the sides and flankes, the spleene, reines, and wrings of the bellie: for the breast, the lights, for such as reject or cast up bloud, and are troubled with the asperitie and hoarsenesse in the throat: For which infirmities, the root is to be stamped, boiled in wine, and so drunke: yea, and otherwhiles to bee reduced into a liniment, and so applied. Moreover the chewing of it onely, quencheth thirst, and hath a principall vertue to coole the lungs. Being applied outwardly in the forme of a cataplasme, it knitteth dislocations, helpeth convulsions, is comfortable to the spleen, and the bowels or guts, if they be fallen by any rupture. The same root rosted or baked under the ashes, staieth a laske, in case it be first shrigged from the
F hairie strings thereof and pilled; and then after it is beaten into pouder, be drunke in water with nine Pepper-corns. And for healing of wounds, so soveraigne it is, that if it bee put into the pot and sodden with peeces of flesh, it will souder and rejoine them, whereupon the Greekes imposed upon it the name Symphytum *i.* Consound. Finally, it serveth to unite againe broken bones.

Chap.

G

Chap. vii.

Of Reits or sea-grasse, and Wallwort. Of the wild Vine, and Wormewood.

THe sea-weed that looketh red, named in Latine Alga, is very proper for the pricke and sting of Scorpions.

Touching Wallwort, it hath leaves carying a strong and stinking smell with them: the stems be rough and parted into joints: the seed blacke like to that of the Ivie, save that the berries containing the same be soft. This hearbe delighteth in shadie, coole, rough, and waterie places. Being given to the full quantitie of one Acetabulum, it is singular for the inward maladies which be proper to women. H

The wild Vine, called by the Greekes Ampe los-Agria, is an hearbe (as I have sufficiently described alreadie in my Treatise of Vines planted and well ordered by mans hand) which putteth forth hard leaves of Ash-colour, long braunches and winding rods clad with a thicke skin, and the same bee red, resembling the flower Phlox, which in the chapter and discourse of Violets, I called Iovis Flamma; and a seed it beareth much like unto the graines within a Pomegranat. The root boiled in three cyaths of water and two cyaths of the wine comming out of the Island Coos, is a gentle emollitive of the bellie, and maketh the bodie soluble, in which regard it is given with good successe to such as be in a dropsie: A very good hearbe for women, as well to rectifie the infirmities of the matrice, as also to scoure and beautifie the skin of their face. Moreover, for the Sciatica it is good to stamp it leafe and all, and to annoint the greeved place with the juice thereof. I

As for Wormewood, there be many kinds thereof. One is named Santonicum of a cittie in Fraunce called Saints: another, to wit Ponticum, taketh that name of the kingdome Pontus; where the sheepe feed fat with it, which is the cause that they bee found without gall: neither is there a better Wormewood than it: much bitterer than that of Italie, & yet the marrow or pith within of that Ponticke Wormewood, is sweet to ours. Meet and requisit it is that I should set downe the vertues and properties thereof, an hearbe (I must needs say) as common as any, and most readie at hand, howbeit, few or none so good and wholesome: to say nothing of the especiall account which the people of Rome maketh of it about their holy sacrifices and solemnities: for in those feastivall holydaies named Latinæ, at what time as there is held a great running with chariots for the best game, hee that first attaineth to the goale and winneth the prise, hath a draught of Wormewood presented unto him. And I beleeve verely, that our forefathers and aunce stours devised this honourable reward, for the good health of that victorious charioteer, as judging him worthie to live still. And in truth, a right comfortable hearbe it is for the stomacke, and doth mightily strengthen it: In which regard, there is an artificiall wine that carrieth the strength and tast thereof, named Absinthites, according as I have shewed heretofore. Moreover, there is an ordinarie drinke made of the decoction of Wormewood boiled in water: For the right making whereof, take six drams weight of the leaves and sprigs together, seeth them in three sextars of raine water, and in the end put thereto a small quantitie of salt; which done, the liquor ought to stand a day and a night afterwards to coole in the open aire, and then is it to bee used: Certes, there is not a decoction of any hearbe of *so great antiquitie as it, and knowne to have beene used so long. Moreover, the infusion of Wormewood is in great request, and a common drinke: for so we use to call the liquor wherein it lay steeped a certaine time. Now this would be considered, that be the proportion of water what it will, the said infusion ought to stand close covered for three daies together. Seldome or never is there any use of Wormewood beaten to pouder, ne yet of the juice drawne by way of expression. And yet those that presse forth a juice, take the Wormewood when the seed upon it beginneth to swell and wax full, and being newly gathered, let it lie soaking in water three daies together: but if it were drie before, to steep it a whole seven-night: which done, they set it over the fire in a brasen pan, with this proportion, namely, ten hemines of the hearbe, to five and fortie sextars of water, and suffer it to boile untill a third part of the liquor be consumed: after this the decoction must run through a strainer, with hearbe and all well pressed: then ought it to bee set upon the fire againe, and suffered to seeth gently and leisurely to the height or consistence of honey, much after the order of the syrrup made of Centaurie the lesse. But when all is done, this juleb or syrrup of Wormewood L M K

Vetustissime in usu est. Some read *Vetus sine usu est*, that is, If this drink be stale, and not used presently, it is good for nothing.

A wood, is offenſive to the ſtomacke and head both; whereas that decoction firſt above named, is moſt holeſome: for aſtringent though it be, and binding the mouth of the ſtomacke aloft, yet it doth evacuat choller downward, it provoketh urine, keepeth the bodie ſoluble, and the belly in
6 good temper, yea and if it it bee pained, giveth great eaſe: the wormes engendred therein, it expelleth: and being taken with Seſeli, and Celticke nard, ſo there be a little vinegre put thereto, it diſpatcheth all ventoſities in the ſtomacke, and cureth women with child of that inordinat deſire and ſtrange longing of theirs: it cleanſeth the ſtomacke of thoſe humors which cauſe loa-
7 thing of meat, bringeth the appetit againe and helpeth concoction: if it bee drunke with rue, pepper, and ſalt, it purgeth it of raw humors and crudities occaſioned by want of digeſtion. In old time, Phyſicians gave wormewood for a purgative; but then they tooke a ſextar of ſea water
B that had been kept long, ſix drams of the ſeed, with three drams of ſalt, and one cyath of honey: and the better will this purgation worke, in caſe the poiſe of ſalt be doubled; but it would be pulverized as fine as poſſibly may be, to the end that it might paſſe away the ſooner, and work more eaſily. Some uſed to give the weight beforeſaid in a grewell of barley groats, with an addition of Peniroyall: others againſt the palſie: and others againe had a deviſe to put the leaves of wormewood in figgs, and make little children to eat them ſo, that they might not taſt their bitterneſſe. Wormewood being taken with the root of Floure-de-lis, diſchargeth the breſt of tough fleame, and cleanſeth the pipes. For the jaundiſe, it would be given in drinke raw, with * Perſley or Mai- * *Cum apio*, not *opio*.
denhaire. Supped hot by little and little in water, it breaketh wind and reſolveth ventoſities: and togither with French Spikenard, it cureth the infirmities of the liver: and taken with vinegre, or
C ſome grewell, or els in figs, it helpeth the ſplene: given in vinegre, it helpeth thoſe that have eaten venomous muſhroms, or be poiſoned with the gum of Chamæleon called Ixia. In wine if it be taken, it ſaveth thoſe who have drunke Hemlocke: it reſiſteth the poiſon inflicted by the ſting of the hardiſhrow, the ſea-dragon, and ſcorpions. It is holden to be ſingular for the clarifying of the ſight: if the eyes be given to watering, it repreſſeth the rheume or flux of humors thither, ſo it bee applied with wine cuit: and laid unto contuſions, and the skin blacke and blew under the eies, with honey, it reduceth the place to the native colour againe. The vapour or fume of the decoction of wormewood received into the eares, aſſuageth their paine: or if they run with corrupt matter, it is good to apply the ſame, reduced into powder and incorporat in honey. Take three or foure ſprigs of wormewood, one root of Nardus Gallicus, boile them in ſix cyaths of
D water, it is a ſoveraigne medicine to drinke for to provoke urine, and bring down the deſired ſickneſſe of women: or being taken ſimply alone with honey, and withall put up in a peſſarie made with a locke of wooll, it is of ſpeciall operation to procure their monthly terms: with hony and ſal-nitre, it is ſingular for the ſquinancie: it healeth kibed heels, if they be bathed with the decoction thereof in water: applied unto freſh or green wounds in a cataplaſme, before any cold water come unto them, it healeth them: and beſides, in that manner, it cureth the ſcalls in the head: being incorporat with * Cyprian wax or figgs, and ſo applied to the flanks or hypochon- * Or the cerot *Cyprice*, after *Dioſcorides*.
driall parts, it hath a particular vertue by it ſelfe to helpe their griefes. Moreover, it killeth any
1 itch. Howbeit, this would be noted, that wormwood in no caſe muſt be given to thoſe that have an ague. Let a man or woman uſe to drinke wormewood, they ſhall not be ſea-ſicke nor given to
E heaving, as commonly they bee that are at ſea. If wormewood be worne in a truſſe to the bottome of the belly, it allayeth the ſwelling in the ſhare. The ſmell of wormewood procureth
2 ſleepe; or if it be laid under the pillow or bolſter, provided alwaies that the Patient be not ware of it. Either baſted within cloaths, or ſtrewed upon them, it keepeth away the moth. If one rub his bodie therewith and oile togither, it driveth gnats away: ſo doth the ſmoke thereof alſo when it burneth. If writing inke bee tempered with the infuſion of wormewood, it preſerveth letters
3 and bookes written therewith, from beeing gnawne by myce. The aſhes of wormewood burnt, and incorporat with oile roſat to an ointment, coloureth the haire of the head blacke. There is yet another kind of Sea wormewood, which ſome call Seriphium: and excellent good is that which groweth about the citie * Taphoſiris in Ægypt. Of this wormewood it is, that the prieſts
F of Iſis in their ſolemne marches and proceſſions, uſe to beare braunches before them. The leaves bee ſomewhat narrower than thoſe of the former, and the bitterneſſe not altogither ſo much. An enemie it is to the ſtomacke: howbeit, the belle it looſeneth, and chaſeth wormes out of the guts: for which purpoſe, it is good to drinke it with oile and ſalt: or elſe the infuſion thereof in a * ſupping or grewell made with the floure of the three-month corne. To make the de-

* So called, becauſe *Oſyris* was enterred, and his ſepulchre renewed there.

* Or rather, a kind of ſweet cuit called *Hepſema* by *Dioſc.* which ſignifieth alſo a water gruell.

coction of wormewood well, there would be taken a good handfull of wormewood, and sodden G
in a sextar of water to the consumption of the one halfe.

Chap. VIII.

Of stinking Horehound: of Mille-graine, or Oke of Ierusalem: of Brabyla, Bryon, Bupleuros, Catanance: of Calla, Circæa, and Cirsium: of Cratægonon and Thelygonum: of Crocodilium and Cynosorchis: of Chrysolachanon, Cucubalon, and Conserva.

STinking Horehound, which some Greeks call Ballote, others Melampraſion, *i.* Blacke Horehound, is an hearbe tufted full of braunches: the stems be blacke and cornered; the leaves H
wherewith they bee clad and garnished, are somewhat hairie, resembling those of sweet or white * Horehound, but that they bee bigger, blacker, and of a stinking savour: but the leaves stamped and applied with salt, be verie effectuall against the biting of a mad dog: also, if they be wrapped in a Colewort or Beet leafe, and so rosted under the embres, they are commended for the swelling piles in the fundement. This Horehound made into a salve with honey, cleanseth filthie ulcers.

* *Porri*: but it should be *marrubij*, according to the Greeke word μαρρούβιν not μάρρον.

Botrys is an hearbe full of braunches, and those of a yellowish colour, and beset round with seed: the leaves resemble Cichorie. Found it is commonly growing about the banks of brookes and riverets. Good it is for them that be straight-winded and cannot draw their breath but sitting upright. The Cappadocians call it Ambrosia, others Artemisia. I

* Some take them for Damascen plums, or rather for Bullois, Skegs, or such like wild plumbs.

As for * Brabyla, they be astringent in manner of Quinces. More than so, I find not any author to write thereof.

Bryon no doubt is a Sea-hearbe, like in leaves to Lettuce, but that they be riveled and wrinkled as if they were drawne togither in a purse: no stem it hath, and the leaves come forth at the bottom, from the root: it groweth ordinarily upon rocks bearing out of the sea: and yee shall find it also sticking to the shells of certaine fishes, especially such as have gathered any mud or earth about them. The hearbe is exceeding astringent and desiccative, by vertue whereof it is a singular repercussive in all impostumes and inflammations of the gout especially, and such as require to be represſed or cooled.

Touching Bupleuros, I read that the seed thereof is given against the sting of serpents: and K
that the wounds inflicted by them, are to be washed or fomented with the decoction of the herb, putting thereto the leaves of the Mulberrie tree, or Origan.

Catanance is a meere Thessalian hearbe, and growing no where else but in Thessalie; and for as much as it is used onely in amatorious matters, and for to spice love drinks withall, I meane not to busie my selfe in the description thereof: howbeit, thus much it would not bee amisse to note, for to detect and lay open the folly and vanities of Magicians, namely, that they went by this conjecture only, that it should be of power to win the love of women, because forsooth when it is withered, it draweth it selfe inward * like a dead Kites foot. For the same reason also, I will hold my tongue and say never a word of the hearbe * Cemos.

* As if it would catch women and hold them fast perforce.

* Cala is of two sorts: the one like to Aron, which loveth to grow in toiled and ploughed L
grounds: the time to gather this hearbe is before it begin to wither: the same operation it hath that Aron, and is used to the like purposes: the root thereof is commended to be given in drinke for a purgation of the belly, and to provoke the monethly terms of women: the stalkes boiled leafe and all togither with some pulse or other into a pottage, and so taken, cure the inordinat provocations to the stoole, and streinings thereupon without doing any thing. The seeond kind some call Anchusa, others * Rhinochisia: the leaves resemble Lettuce, but that they be longer, full of plume or downe: the root red, which being applied with the floure of barley groats, healeth shingles, or any other kind of S. *Anthonies* fire; but drunke in white wine, cureth the infirmities of the liver.

* κημὸς or χαμὸς in Greeke signifieth a bridle or bit: and it is thought to be *Leontopodium*, *Dioscor.* though others take it for Doder.

* Or rather, *Calix.*

Circæum is an hearb like to winter Cherrie or Alkakengi, but for the flours which are black: M
the seed small, as the graine of Millet, and the same groweth in huskes or bladders resembling little horns: the root is halfe a foot long, forked for the most part into three or foure grains or braunches: the same is white, odoriferous and hot in the mouth: it loveth to grow upon rocks and stonie grounds lying pleasantly upon the Sun. The infusion of this root in wine, is good to

* Rather *Onocleia*, out of *Dioscorides.*

be

A be drunke for the paine and other diſeaſes of the matrice: but of the ſaid root there ought to bee taken three ounces ſtamped, and the ſame to ſteepe a day and night in three ſextars of wine, for to make the infuſion above-named. This potion alſo ſerveth to ſend downe the after-birth, if it ſtay behind. The ſeed of this hearbe drieth up milke, if it be drunke in wine or mead.

Cirſion commeth up with a ſlender ſtalke two cubits high, and ſeemeth to be made three cornered triangle-wiſe: the ſame is beſet round about with prickie leaves: howbeit, the ſaid pricks are but tender and ſoft. The leaves in forme reſemble an ox tongue or the hearbe *Langue-de-bœuſe, but that they be ſmaller and ſomewhat white; in the top whereof there put foorth purple buttons or little heads, which in the end turne to a plume like thiſtle downe. Some writers hold, that this hearbe or the root onely, bound unto the ſwelling veines called Varices, doth allay the
B paine thereof.

Cratæogonos ſpindleth in the head like unto the eare of wheat, and out of one ſingle root yee ſhall have many ſhoots to ſpring and riſe up into blade and ſtraw, and thoſe alſo full of joynts. It gladly groweth in coole and ſhadowie places: the ſeed reſembleth the graine of the Miller, which is verie ſharpe and biting at the tongues end. If a man and his wife before they companie togither carnally, drinke before ſupper for fortie daies togither the weight of three oboli of this ſeed, either in wine, or as many cyaths of water, they ſhall have a man child betweene them, as ſome ſay. There is another *Cratæogonos, called alſo Thelygonos; and the difference from the other may ſoone be knowne by the mildneſſe in taſt. Some authors affirme, that if women uſe to drinke the flours of Cratæogonos, they ſhall within fortie daies conceive with child. But as well
C the one as the other applied with honey, doe heale old ulcers: they incarnat and fill up the hollow concavities of fiſtulous ſores: and ſuch parts as do miſlike and want nouriſhment, they cauſe to gather fleſh and fill the skin againe: foule and filthie ulcers they mundifie, the flat biles and riſings called Pani they rarifie and diſcuſſe: gouts of the feet they mitigat; and generally all impoſtumations, in womens breaſts eſpecially, they reſolve and aſſuage. *Theophraſtus* would have a kind of tree to be called Cratægonos or Cratæogon, which here in Italie they call * Aquifolia.

Crocodilion doth in ſhape reſemble the thiſtly hearbe or Artichoke called the blacke Chamæleon: the root is long and thicke in all parts alike, of an hard and unpleaſant ſmell: it groweth ordinarily in ſandie or gravelly grounds. If one drinke of it (they ſay) it will ſet the noſe a bleeding, and ſend out a deale of thick and groſſe bloud, that the ſplene will diminiſh and weare
D away by the means.

As touching Teſticulus Canis or Dogs-ſtones, which the Greeks call Cynoſorchis, & others ſimply Orchis, it hath leaves like unto thoſe of the Olive; ſoft and tender they are, and about halfe a foot long, and therefore no marveile if they lie ſpred upon the ground: the root is bulbous and growing long-wiſe, in a double ranke, or two togither; the one above, which is the harder, the other under it, and that is the ſofter: when they be ſodden, folke uſe to eat them after the manner of other bulbs: and lightly a man ſhall find them growing in vineyards. Of theſe two roots, if a man eat the bigger, it is ſaid, that hee ſhall beget boies; and if the woman eat the ſmaller, ſhee ſhall conceive a maiden-child. In Theſſalie, men uſe for to drinke in goats milke, the ſofter of theſe roots, to make themſelves luſtie for the act of generation; but the harder, when they
E would coole the heat of luſt: whereby wee may ſee, that they be contrarie, and one hindreth the operation of the other.

Chryſolachanon commeth up like a Lettuce, and commonly groweth in plots of ground ſet with Pines: the vertue of this hearbe is to heale wounds of the ſinews though they were cut quite aſunder, if it bee preſently laid too. There is another kind of * Chryſolachanon, bearing flours of a golden colour, and leafed like unto the Beet: when it is boiled, folke uſe to eat it in ſtead of meat, and it looſeneth the belly as well as Beets, Coleworts, and ſuch like: and if it bee true that is reported, whoſoever beare this hearbe tied faſt about any place of their bodies which is ever in their eye, ſo as they may ſee the ſame continually, it will cure them of the jaundiſe. Touching this hearbe Chryſolachanum, well I wot that I have not written ſufficiently, that
F men might know it by this deſcription, and yet could I never meet with any authour who hath ſaid more, or deſcribed it better. This verely hath been the fault and overſight even of our moderne Herbariſts of late daies, To write ſlightly of thoſe hearbs and ſimples which they themſelves knew and were acquainted with, as if forſooth they had been knowne to everie man; ſetting downe onely their names and no more: which is even as much as to tell us a tale and ſay,

* Or Borage, called in Greeke *Buglóſſon.*

*Some take this for our *Perſicorie*, or Arſmert.

* *i.* Holly or Hulver: nay rather, *Aquifolia* is *Agria* in Greeke: and the *Cratægus* of *Theophraſtus*, which he meaneth here, is a kind of Cervoiſe tree, now called *Torminalis.*

*I thinke hee meaneth Orach.

that with the * rennet or rundles of the earth, one might stay a laske, or give free passage to the urine in the strangurie, so it be drunke in wine or water. G

As for Cucubalum, they write of it, That if the leaves be stamped with vinegre, they heale the sting of serpents and scorpions. Some of them call this hearbe by another name, Strumus, and others give it the Greeke name Strychnos: and blacke berries (they say) it hath. The juice thereof taken to the quantitie of one cyath, with twice as much honeyed wine, is soveraigne for the loins or small of the backe: likewise it easeth the head-ach, if togither with oile of roses it be distilled upon the head by way of embrochation. The hearbe it selfe in substance made into a liniment, healeth the wens called the Kings evill.

Concerning the fresh water Spunge (for so I may more truly tearme it, than either mosse or hearbe, so thicke of shag haires it is and fistulous withall) it groweth ordinarily within the rivers H that issue from the foot of the Alps, and is named in Latin *Conferva, for that it is so good to conglutinat, in manner of a souder. Certes, I my selfe knew a poore labourer, who as he was lopping of a tall tree, fell from the top downe to the ground, and was so piteously bruised thereby, that unneth he had any sound bone in all his bodie that was unbroken: and in verie truth, lapped hee was all over with this mosse or spunge (call it whether you will) and the same was kept evermore moist and wet with sprinkling his owne water upon it, whensoever it began to drie upon him with the heat of his bodie: seldome was it undone or remooved, and never but when of necessitie for very chaunge fresh was laid too for default of the other: and by this manner of cure and no other, the poore wretch recovered perfitly, in so small a time, that it was wonderfull and almost incredible. I

*Coagulo terræ: Some thinke this place unperfit; but I guesse rather, that *Plinie* herein glanceth at the obscuritie of their writings in those daies of Simples, who put downe that hearbe many times, which no man can make any sense of no more than of *Coagulum terræ*.

* *à conferruminando.*

Chap. ix.

Of the berrie called Coccum Gnidium. Of the Tazill, and Okeferne. Of Dryophonon, and Elatine. Of Empetrum, otherwise named Calcifraga. Of Epipactis, or Elleborine. Of Epimedium, Enneaphyllon, and Ferne. Of the hearbe named Oxe-thigh. Of Galeopsis, otherwise Galeobdolon. Of Glaux or Eugalactum.

THe berrie Coccum Gnidium, in colour resembleth the Scarlet graine; in quantitie a pepper corne, but that it is bigger: of an ardent and caustick qualitie it is, and therefore they K use to lap it in the soft crum or pith of a loafe of bread, and so swallow it, for feare it should burne the throat as it passeth down. A present remedie this is for those who are empoisoned with Hemlocke; and it hath a good propertie to stop a laske.

* *Virga pastoris.* The Tazill, called in Greeke * Dipsacos, hath leaves much resembling Lectuce, saving that in the mids of the backepart, there are to be seene certaine bubbles as it were, or risings, & those be prickly: the maine stem which it beareth, is two cubits high, and the same armed with pricks: at every joynt and knot whereof, it putteth forth two leaves which doe compasse and enclose the same round about in manner of wings, making thereby a certain * concavitie or hollow receptacle, wherein alwaies there standeth a * saltish dew or water. In the top of this maine stem and other braunches proceeding from it, it beareth certaine burrie heads, beset all over with sharpe L pricks like those of an Vrchin: and it loveth to grow in waterie places. This hearb closeth up and skinneth the fissures or chaps in the fundement: also the root boiled in wine, healeth fistuloes; but the same ought to be so tender sodden, as it may be wrought like wax, that a colyrie or tent made of it may be put into the concavitie of the sore. Moreover, it cureth werts of all sorts: and some there be, who to take away werts, wash them with the liquor found in the hollow pith of the foresaid wings. The Oke ferne named in Greeke Dryopteris, is like unto other ferne, and groweth upon trees, having leaves finely slit, and those somewhat sweet in tast: the root is rough and hairie: Of a caustick and fierie nature is this hearbe; and therefore the root being punned, is a depilatorie and fetcheth off haire: for which purpose, the manner is to applie it manner of a liniment, untill it procure sweat: which course would bee reiterated twice or thrice, during which M time the sweat must not be wiped away.

* Thereupon it is called *Labrum Veneris, i. Venus* laver.

*This water is not saltish: but because the name *Dipsacos* in Greek alludeth to thirst, & salt things cause thirstinesse, *Plinie* guessed this humor to be saltish.

Dryophonon is an hearbe much like to Dryopteris: the stems whereof be small, yet growing to the length of a cubit, and those be environed on both sides an inch broad: in shape much like unto Bruscus or Butchers-broome, named in Greeke Oxymyrsine, but that they be whiter and softer,

A ſofter, bearing a white floure likewiſe in manner of the Elder. The young crops and tendrils of this herb, may be eaten when they are ſodden: and the ſeed is commonly uſed in ſtead of pepper.

Running Buckewheat or Bindweed, named in Greeke Elatine, putteth foorth ſmall leaves, round and hairie, much like unto thoſe of Parietarie of the wall; and immediatly from the root there ſpring five or ſix pretie braunches halfe a foot long, furniſhed well with leaves. This hearbe groweth among corne: ſoure it is and harſh in taſt, whereupon it is taken to be very effectuall to repreſſe the flux of humors which cauſe watering eyes, if the leaves be ſtamped with barly groats, and applied with a fine linnen cloath underneath. The ſame boiled togither with Lineſeed, cureth the bloudie flix, in caſe the Patient drinke the broth or decoction thereof.

As for Empetron, which our countreymen in Latine name Calcifraga, it groweth upon
B mountains regarding the ſea, and commonly upon rocks and ſtonie cliffs: the nearer it is to the ſea, the ſalter taſt it hath, by which means if it be taken in drinke, it purgeth choller and fleame: the farther off that it groweth from the ſea, and the more terrene and earthly ſubſtance that it hath, the bitterer is it found to bee, and this doth evacuat wateriſh humors: but the manner of taking it, is in ſome potage, or els in mead. Beeing long kept, it looſeth the force: if it be freſh and new gathered, and then either ſodden or ſtamped, it is diureticall and breaketh the ſtone. And verely they that promiſe thus much in the leafe of Empetron, and would ſeeme to juſtifie and make good their word, doe affirme for the better credit thereof, That if ſtones doe boile with it in the ſame pan, they will burſt in peeces.

* This *Empetron* is thought to be our *Saxifrage*.

Epipactis, named by ſome Elleborine, is a little hearbe bearing ſmall leaves: ſoveraigne for
C the diſeaſes of the liver, and againſt all poiſons, if it be taken in drinke.

Epimenidion putteth forth no great ſtem, bearing ten or twelve leaves reſembling the Ivie, but it never ſheweth floure: the root is ſmall, black, and of a ſtrong and ſtinking ſmell: it groweth upon moiſt grounds: of an aſtringent nature it is, and cooleth mightily: an hearbe that women *muſt beware of. The leaves ſtamped and applied to the paps of maidens, keepe them down that they ſhall not grow.

* For it hindreth conception.

Enneaphyllon hath long leaves, in number nine neither fewer nor more, and thoſe be of a burning or cauſticke nature: a ſingular hearbe for the paines of loines, and the Sciatica, but it ought to be applied enwrapped well in wooll, for feare leaſt it burne the flanks, for preſently it raiſeth bliſters.

D Of Ferne be two kinds, and they beare neither floure nor ſeed. Some of the Greeks call the one Pteris, others Blechnon: from one root whereof there ſpring many braunches repreſenting wings, and thoſe exceed two cubits in length, yeelding * no unpleaſant ſavour; and this they ſuppoſe to be the male. The ſecond kind, the ſaid Greekes ſome call Thelypteris, others Nymphæa Pteris: this groweth ſingle, and brancheth not into many ſtems; ſhorter it is than the former, ſofter alſo, and thicker of leaves, and thoſe toward the root guttered and ſomewhat hollow: there is neither of them both, but their roots will feed ſwine fat: and the leaves of the one as well as the other, are diſpoſed on both ſides ſo, as they doe repreſent birds wings, whereupon the Greeks gave them the name * Pteris. The roots of both Ferns be long, and thoſe growing byas: in colour blacke, eſpecially when they bee drie: and dried they ought to be in the Sun. Ferne
E groweth everie where, but their moſt delight is in a cold ſoile. The due time of digging them up, is about the ſetting of the ſtar Vergiliæ. There is no uſe in Phyſicke of their roots, but when they be juſt two yeers old; for both before and after that time, they ſerve for no purpoſe. Taken in this their ſeaſon, they doe expell all kind of vermin out of the guts; with honey, if they be broad and flat worms; but in ſome ſweet wine, for all the reſt, whether they bee round or ſmall, ſo that the Patient continue this drinke three daies togither. Neither of them both, but are very contrarie and offenſive to the ſtomacke: howbeit, they purge the belly, and firſt evacuat choller, then ſoon after, wateriſh humors: but the better doe they chaſe the foreſaid flat worms out of the bodie, in caſe they bee quickened with the like quantitie of Scammonie. The root of Ferne taken to the weight of two oboli in water, cureth all rheums; but the Patient ought to faſt one whole day be-
F fore, and likewiſe eat a little honey ſomewhat before that he take the ſaid drinke. As for women, neither the male nor the female Ferne would be given unto them; for if they be with child, it will drive them to travaile before their time, and ſlip an untimely birth; and if they be cleare, it hindreth conception and cauſeth them to be barraine. The powder of Ferne roots, is ſingular to be ſtrewed or caſt upon maligne ulcers; yea and the farcins or ſores in horſe necks. The leaves of

* *Non gravi odore: Dioſcor.* ſaith, *Sub graves odore*, ſomewhat unpleaſant in ſmell.

* And in *Columella*, *Filix* is called *Avia*.

Ferne kill punaises or wallice, and a serpent they will not harbour: and therefore it is good for G
those who are to lie in suspected places, to make them pallets of Ferne leaves, or at leastwise to
lay them under their beds. The verie smoke also of them when they be burned, doe chase away
serpents. Moreover, Physicians have made some difference and choise even in this herb also; for
the best is counted that of Macedonie: & the next to it in goodnesse, commeth from Cassiope.

As touching the hearbe called in Latine Femur bubulum, that is to say, Ox-thigh, it is verie
good for the sinews, if being new gathered, it be stamped and incorporat in vinegre and salt.

*Many take it for Archangell.

*Galeopsis, otherwise called by some Galeobdolon or Galion, hath a stem and leaves like unto the nettle, but that they are more smooth and mild in hand; which if they be bruised or stamped, yeeld a stinking smell; and it beareth a purple floure: it groweth every where about hedges and path-waies. The leaves and stalks both, stamped and applied with vinegre, heale all hard tumors and cancerous sores: likewise the wens called the Kings evill: they resolve flat impostumes, H
and the swellings behind the ears: now the manner is to foment the said infirmities with their decoction. Being laid too with salt, they heale ulcers tending to putrifaction, and gangrens.

As touching Glaux, in old time called Eugalacton, it is an hearbe in leafe resembling Tree-trifolie, and the Lentill, but that the backe-part of the leafe in Glaux is whiter. The braunches, which be in number five or six, and those springing directly from the root, verie small, doe creepe along the ground: the floures which it putteth foorth be of a purple colour: And this hearbe is found growing ordinarily neare the sea side. Being boiled in a grewell made of fine wheat floure, it causeth nources that drinke it, to have plentie of milke in their brests; but then they must presently goe to a baine or hot-house. I

Chap. x.

Of Glaucion. Of Pæonie, and Cudweed or Cottonwort, called also Chamæzelon. Of Galedragon, Holcus, Hyosiris, Helosteon, and Hippophæston.

GLaucion groweth naturally in Syria and Parthia: a low hearbe, tufted thicke with leaves, much like unto Poppie, but that they be smaller and looke more foule and greasie; of an unpleasant and stinking smell; bitter also in tast, stypticke, and astringent: grains it beareth of a saffron colour, whereout is drawne the juice Memithra, called by the Greeks Glaucium also, as well as the hearbe. Now for to get this juice, they use to cover the graines in mud or clay, K
and put them in an earthen pot which they set in an oven; where, after they are well heat, they use to presse out of it the foresaid juice. And not onely it, but the leaves also if they be stamped, are much used for the flux of humours to the eies, especially such as fall togither all at once in great violence. And of this hearbe or juice there is a certaine collyrie compounded, which the Physicians call Diaglaucion: a good medicine also for nources to drinke in water, if they have lost their milke and would recover it againe.

Pionie, which some in Greeke call Glycyside, others Pæonia, or Pentorobos, hath one main stem two cubits high, and the same accompanied with two or three more lesse stalks of a reddish colour, and the rind resembleth that of a Bay tree: the leaves be verie like unto Woad, were they not fatter, rounder, and smaller: seed it beareth in certaine huskes like grains, and those be partly L
red and partly blacke. Of Pæonie there bee two kinds: The female is that thought to be, to the root whereof there sticke eight long bulbs commonly, or six at least: The male hath more of them hanging to it, by reason it standeth not upon one single and entire root onely, but of many, and those run downe a span deepe, and bee white withall. These roots are found to be astringent and stypticke at the tongues end. As for the female, the leaves thereof doe sent of myrrhe, and grow somewhat thicker than those of the male. They love both, to grow in woods. It is commonly said, That the roots must bee digged up in the night season, for feare that the Wood-speight or Hickway should see them: for in the day time the said bird would flie in their faces that carie it away, and be ready to job out their eyes. In the very drawing also of those roots out of the ground, there is some daunger, least their fundament or tiwill fall out of their bodies M
who are employed about that businesse. But I suppose all this to bee but a fabulous and vaine invention, devised onely to make folke beleeve it is an hearbe of wonderfull operation. Moreover, the graines are diversly used: for the red, being taken to the number of fifteene or thereabout, in some grosse or hard wine, doe stay the monethly flux of the reds in women: whereas the blacke

drunke

A drunke to the ſame number in ſweet cuit or ſimple wine, cure the paſſions of the matrice,[and namely the riſing of the mother.] The root given in wine,appeaſeth all the paines of the bellie, cleanſeth the guts,cureth the convulſion or crampe which plucketh the necke and bodie backeward,and the jaundiſe: it pacifieth alſo the greefes of the reines and bladder. As for the wrings of the matrice and ſtomacke,the ſame boiled in wine,doth aſſuage them: the laske it ſtaieth: and being eaten with meat,it is good for thoſe that be troubled in their braines,or otherwiſe given to melancholie.But in theſe caſes foure drams is counted a ſufficient doſe. The blacke graines taken to the number aboveſaid in wine,helpe thoſe that be ridden with the night mare,and in danger thereby to have their breath ſtopped. For the gnawing in the ſtomacke,the ſame beeing either eaten,or applied in a liniment,are ſingular good: impoſtumations likewiſe growing to ſup-
B puration,if they be taken betimes,may be reſolved with a plaſtre made of the black berries:and ſay they were of long continuance,the red will doe the deed.But as well the blacke as the red,are ſoveraigne for thoſe who bee ſtung with ſerpents: as alſo for yong children who have the ſtone, and be entring into the ſtrangurie,and piſſe dropmeale.

Cudwort or Cottonweed,ſome there bee who call Gnaphalion,others Chamæzelon. The white,ſoft,and delicat downe of the leaves,many uſe in ſtead of ſlockes; and ſurely it is not much unlike.This hearbe is good to be given in ſome auſtere or ſtypticke wine,for the bloudie flix. It ſtaieth laskes,and reſtraineth the immoderat flux of womens fleurs.Being clyſterized it is ſingular for the Tineſme, that is to ſay,the continuall provocations to the ſeege without any voidance of excrements. Laſt of all,in a liniment it ſerveth well to bee applied in ulcers tending to putri-
C faction.

As touching Galedragon (an hearbe ſo called by *Xenocrates*) it reſembleth the thiſtle named Leucacanthe[*i.*S.*Marie* thyſtle]and groweth full of ſharpe prickes in moorie grounds.The ſtem riſeth up tall,in manner of Ferula or Fennell geant, in the very head and top whereof it beareth a thing reſembling an egge, in which there breed(they ſay)in proceſſe of time certaine grubs or little wormes,which are excellent for to eaſe the tooth-ach, if they bee kept in a box with bread, and as need requireth, tied faſt unto the arme of the patient on that ſide where the teeth ake; for it is wonderfull how ſoone the paine will by this meanes ceaſe. Marie they ought to bee chaunged every yeare, for after one yeare they bee of no vertue in this caſe: and in any wiſe they muſt at no time touch the ground.

D As for Holcus,it groweth upon ſtonie grounds and thoſe that be drie.It riſeth up with a ſtem like unto the ſtraw of that Barley which ſpringeth every yeare without ſowing: in the top whereof it beareth ſlender ſpikes or eares. This hearbe bound about the head,or the arme, *draweth forth of the bodie any ſpils whatſoever: whereupon ſome name it Ariſtida.

*Hyoſeris reſembleth Cichorie or Endive,but that it is leſſe,and in handling more rough. A ſoveraigne vulnerarie hearbe,ſo it be ſtamped and laid to a wound.

Holoſteon, which the Greekes ſo call by the *contrarie, is an hearbe without any hardneſſe at all,as if wee ſhould tearme*[Gall] by the name of[Sweet.] So ſmall and ſlender it groweth, that a man would take it to be all haires; foure fingers long, in manner of quich graſſe or ſtitchwort. The leaves bee narrow,and have an aſtringent taſt. It commeth up ordinarily upon banks
E and hillocks, which bee all earth and nothing ſtonie. Beeing drunke in wine, there is great uſe thereof for convulſions,ſpreines,and ruptures. It is a great healer beſides, and skinneth greene wounds: and experience hereof may bee ſoone ſeene: for if it bee put among peeces of fleſh in the pot whiles they boile,it will cauſe them to grow together and unite.

Hippophæſton is a certaine prickie buſh growing by the ſea ſide, wherewith *Fullers and Diers fill their leads and coppers;without ſtem,without flower: it bringeth forth certain little knobs or buttons onely,& thoſe hollow: leaves alſo it hath ſmall and many in number, of a graſſe green colour: the roots be white and tender; out of which there is a juice drawne by way of expreſſion in Summer time, which is ſingular good for to purge the bellie, if it bee taken to the weight of three oboli;and principally, helpeth thoſe that bee ſubject to the falling ſickneſſe, trembling of
F the members, and the dropſie: it cureth alſo thoſe that be given to the ſwimming and dizzineſſe of the braine,to ſtraightneſſe of wind,and who cannot breath but upright;and laſt of all,to ſuch as be entring into a palſie.

* And therfore it is called *Holcus* ἀπὸ τῦ ἕλκειν.

*As one would ſay, Swines Endive or Cichory.

* κατ' ἀντίφρασιν: for the word ſignifieth, All bone.

* So in Greeke χολὴ[i fell]is called χλυκὺ, as in ſome part of France (as *Dalechampius* noteth)Gallis named *le doux*.

*Some read θαφίαν, *i.*Diers: others γναφίαν, *i.*Fullers.

CHAP.

G

Chap. xi.

Of Hypogloſſa and Hypecoon, Idæa, Iſopyron, Lathyris, Leontopetalon, Lycopſis, Lithoſpermon. The vulgar ſtone. Of Limeum, Leuce, and Leucographis.

Biſlingua. Horſtoung, or Double tongue.

HYpogloſſa hath leaves faſhioned like unto Butchers broome, and thoſe turning hollow, and prickie: within which concavities there come forth certaine little leaves reſembling tongues. A guirland or chaplet made of theſe leaves, and ſet upon the head, eaſeth the paine thereof.

Hypecoon groweth amongſt corne, and is leafed like unto Rue. It hath the ſame nature and properties that Opium or the juice of Poppie. H

As for the hearbe Idæa, the leaves thereof reſemble thoſe of ground-Myrtle or Butchers broome: unto which there grow cloſe certaine tendrils, and thoſe carrie flowers. It ſtoppeth a laske, ſtaieth the immoderat flux of womens moneths, and ſtaunceth all unmeaſurable bleeding: for by nature aſtringent it is and repercuſſive.

Iſopyron, ſome there be who call it Phaſiolum, becauſe the leafe (otherwiſe like unto Anniſe) dooth turne and wryth like unto the tendrils of Phaſils. In the top of the ſtem it beareth ſmall heads or buttons full of ſeed, reſembling Nigella Romana. A ſoveraigne hearbe, taken either in honey or mead, againſt the cough and other infirmities of the breaſt: likewiſe for the accidents of the liver.

*Lathyris. * For the milkie juice haply. For *Dioſcorides* ſaith *amygdalæ*. i. of the Almõd tree. * *Purgata facilia.* Some think gentle purgatives.

*Spurge hath many leaves reſembling *Lectuce: beſides which it putteth forth as many other ſlender and ſmall braunches, containing in little tunicles or huskes certaine ſeeds in manner of capers: which beeing dried and taken foorth, reſemble for bigneſſe cornes of Pepper, white in colour, ſweet in taſt, and eaſie *to be cleanſed from their huske. Twenty of theſe ſeeds drunk either in cleare water or mead, do cure the dropſie: beſides wateriſh humors, they evacuat choller. They that deſire to be throughly purged and would have them to work ſtrongly, uſe to take them husk and all; but certainely ſo taken, they hurt the ſtomack: and therfore there is a deviſe of late found out to give them either with fiſh, or els in ſome broth of a cocke or capon. I

Leontopetalon, which ſome call Rhapeion, carieth leaves like unto Coleworts, and a ſtalke halfe a foot high, garniſhed with many braunches reſembling wings: and ſeed it beareth in the head contained within cods, after the manner of ciches. The root is made much after the faſhion of a rape or turnep, big and blacke withall. This hearbe groweth in corne grounds. The root is a ſingular counterpoyſon to be given in wine againſt the ſting or vemin of any ſerpents; and verely there is not in the world a more ſpeedie remedie. Very good alſo it is for the Sciatica. K

* Some take it for a kind of Orchanet, others for Hounds-toung

* Lycopſis hath leaves like unto Lectuce, but that they bee longer and thicker: it riſeth up with a long ſtem, and the ſame hairie, with many branches growing thereto of a cubit in length: and beareth little flowers of purple colour. It loveth to grow upon champion plaines. A liniment made with it and Barley meale, is good for the ſhingles and S. *Anthonies* fire. In agues it procureth ſweat, ſo that the patient drinke the juice thereof mingled with hot water.

But of all hearbs that be, there is none more wonderfull than Greimile: ſome call it in Greek Lithoſpermon, others Ægonychon, ſome Dioſpyron, and others Heracleos. It groweth ordinarily *five inches high: and the leaves be twice as big as thoſe of Rue. The foreſaid ſtalkes or ſtems be no thicker than bents or ruſhes, and the ſame garniſhed with ſmall and ſlender braunches. It bringeth forth cloſe joining to the leaves, certain little beards one by one, and in the top of them little ſtones white and round in manner of pearls, as big as cich peaſe, but as hard as very ſtones. Toward that ſide where they hang to their ſteles or tailes, they have certaine holes or * concavities containing ſeed within. This hearb groweth in Italie: but the beſt in the Iſland Candie. And verely of all the plants that ever I ſaw, I never wondered at any more: So ſightly it groweth, as if ſome artificiall goldſmith had ſet in an alternative courſe & order, theſe pretie beads like orient pearles among the leaves: and ſo rare a thing it is and difficult to bee conceived, that a very hard ſtone ſhould grow out of an hearbe. The Herbariſts who have written thereof, doe ſay that it lieth along and creepeth by the ground: for mine owne part, I never ſaw it growing in the plant: but ſhewed it was unto me plucked out of the ground. This is for certaine knowne, that theſe little ſtones called Gremil ſeed, drunke to the weight of one dram in white wine, breake the ſtone, L M

* *Quincuncialis ferè*: others read *Quinque caulibus ferè*, i. commonly it beareth five ſtalkes. *This ſome take to bee meant of that Greimile, called *Jobs* teares.

expell

A expell the ſame by gravell, and diſpatch thoſe cauſes that bee occaſions of ſtrangurie. Certes, a man no ſooner ſeeth this hearbe, but he may preſently know the vertues thereof, and for what it ſerveth in Phyſicke; a thing that he ſhall not obſerve againe in any other whatſoever: for at the very firſt ſight of thoſe little ſtones, his eye will tell him what it is good for, without information from any perſon at all. There be common ſtones found about rivers, bearing a certaine drie hoarie moſſe upon them. Rub one of theſe ſtones againſt another, having ſpit firſt thereupon, and then therewith touch the tettar or ringworme in any part of the bodie, it will kill the ſame: but the partie muſt as he toucheth it, utter this charme following:

* φεύγετε κανθαρίδες, λύκος ἄγριος ὄμμε διώκει.

* He tearmeth tettars or ringwormes Cantharides, and the ſaid ſtone, the wild Wolf.

B That is to ſay,

Cantharides, flie apace: for a wild Wolfe followeth in chaſe.

The Frenchmen have a certaine hearbe which they call Limeum, out of which they draw a venomous juice, named by them Stags-poyſon, wherewith they uſe to envenome their arrow heads when they goe to hunt the red Deere: Take of this as much as goeth to the poyſoning of one arrow, and put it in three meaſures or modij of a maſh wherewith they uſe to drench cattell: and make ſops thereof, and conveigh them downe the throat of ſicke oxen or kine, it will recover them. But preſently after the receit of this medicine, they muſt be tied up ſure unto their bouzies, untill the medicine have done purging: for the beaſts commonly fare all the while that it is C in working, as if they were wood. In caſe they fall a ſweating upon it, they muſt be waſhed all over with cold water.

* Leuce is an hearbe like unto Mercurie; but it tooke that name by reaſon of a certain white ſtrake or line that runneth croſſe through the mids of the leafe, for which cauſe ſome call it Meſoleucas. The juice of this hearbe healeth fiſtuloes: and the ſubſtance of the hearb it ſelfe ſtamped, cureth cancerous ſores. It may be peradventure the ſame hearbe which is named Leucas, that is ſo effectuall againſt all venomous ſtings proceeding from any ſea-fiſhes. The Herbariſts have not deſcribed this hearbe otherwiſe than thus, That the wild kind thereof with the broader leafe, is more effectuall in the leaves; and that the ſeed of the garden kind, hath more acrimonie than the other. * *Mentha Saracenica.*

D Touching Leucographis, what manner of hearbe it ſhould be, I have not found in any writer: and I wonder thereat the rather, becauſe it is reported to be ſo good for them that void & reach bloud upward, namely, if it be taken to the weight of three oboli with Saffron. Likewiſe ſtamped with water and ſo applied, it is ſingular good againſt thoſe fluxes which proceed from the imbecillitie of the ſtomacke: ſoveraigne alſo for to ſtay the immoderat flux of womens tearmes. And it entreth into thoſe medicines which are appropriat for the eyes, yea and into incarnatives, ſuch eſpecially as be fit to incarnat thoſe ulcers which are in the moſt tender and delicat parts of the bodie.

Chap. XII.

E *Of Medium, Myoſota, Myagros, Nigina, Natrix, Odontitis, Othonne, Omoſma, Onoporidos, Oſyris, Oxys, Batrachion, Polygonon, Pancration, Peplos, Periclymenos, Leucanthemon, Phyteuma, Phyllon, Phellandrion, Phalaris, Polyrrhizon, and Proſerpinaca: of Rhacoma, Reſeda, and Stœchas.*

MEdion hath leaves like unto *garden Floure-de-lis. A ſtem three foot *high, garniſhed with faire large flowers, of purple colour, and round in forme: the ſeed is ſmall, and the root halfe a foot long: it groweth willingly upon ſtonie grounds lying in the ſhade. The root taken in a liquid electuarie or lohoch made with honey to the quantitie of two drams, for certaine daies together, ſtaieth the immoderat flux of womens monthly termes. The ſeed alſo reF duced into pouder and drunke in wine, repreſſeth their extraordinarie ſhifts. * *Iridis ſativæ*: others read *Seridis*, *i.* Endive. * *Tripedalem.* But *Dioſcorides* ſaith *Tricubitalem*, *i.* three cubits high.

*Myoſota, otherwiſe called Myoſotis, is a ſmooth hearbe, ſhooting forth many ſtems from one ſingle root, and thoſe in ſome ſort of a reddiſh colour, and hollow: garniſhed with leaves, which toward the root be narrow, long, and blackiſh, having their backe part ſharpe and edged: which leaves grow along the ſtems two by two together: and out of the concavities or armepits be- * Mouſe-eare.

betweene the ſtalke and them, there put forth other ſmall branches with a blew flower. The root G
is of the thickneſſe of a mans finger, bearded with many ſmall ſtrings reſembling haires. This root is of a corroſive nature, fretting and exulcerating any place whereunto it is applied: in which regard it healeth up the fiſtulous ulcers called Ægilops, growing betweene the noſe and angles of the eyes. The Ægyptians are of opinion, That if upon the ſeven and twentieth day of that month which they call Thiatis (and which anſwereth very neare to our month Auguſt) a man or woman doe annoint themſelves with the juice of this hearbe in a morning before they have ſpoken one word, he or ſhe ſhall not be troubled with bleared eyes all that yeare long.

Myagros is an hearbe growing up with ſtems in manner of Fennell-geant, in leaves reſembling Madder, and riſeth to the height of three foot. The ſeed which it beareth is oleous, and out of it there is an oile drawne, which is good for the ſores in the mouth, if they be annointed therwith. H

The hearbe called Nigina, hath three long leaves like unto thoſe of Succorie: wherewith if skars (remaining after ulcers and wounds) be rubbed, it will reduce them to the naturall colour of the other skin.

There is an hearbe, which in Latine is named Natrix, the root whereof being pulled out of the ground, hath a ranke ſmell like unto a Goat; with this hearbe they uſe in the Picene countrey to drive away thoſe hob-goblins which they have a marvellous opinion to be ſpirits, called Fatui: but for mine owne part, I am verely perſuaded they bee nothing els but fantaſticall illuſions of ſuch as bee troubled in mind and beſtraught, the which may bee chaſed and rid away by the uſe of this medicinable hearbe.

Odontitis may be reckoned among the kinds of hey-graſſe, putting forth many ſmall ſtems I
growing thicke together from one root, and thoſe knotted and full of joints, triangled and blackiſh withall: in every joint ſmall leaves it hath, reſembling thoſe of knot graſſe, howbeit ſomewhat longer: in the concavities betweene the ſaid leaves and the ſtem there is contained a ſeed like unto Barley cornes: the flower is of a purple colour, and very ſmall. It groweth ordinarily in meddow grounds. The decoction of the braunches and tender ſtalkes of this hearbe, to the quantity of one handfull, boiled in ſome aſtringent wine, cureth the toothach, if the patient hold the ſame in the mouth.

Othonne groweth plenteouſly in Scythia, like unto Rocket: the leaves bee full of holes, and the flower reſembleth Saffron: which is the cauſe that ſome have called it Anemone. The juice of this hearbe entreth very well into thoſe medicines which are appropriat to the eyes; for it is K
ſomewhat mordicative, and heateth gently: beſides exiccative it is, and by that meanes aſtringent. It cleanſeth the eyes of thoſe filmes and clouds which darken the ſight, and removeth whatſoever hindereth the ſame. Some ordaine for this purpoſe that it ſhould be waſhed firſt, and after it is dried againe made into certaine bals or troſchisks.

Onoſma beareth leaves well neare three fingers long, and thoſe lying flat upon the ground: three in number, and indented or cut after the manner of Orchanet, without ſtem, without flour, without ſeed. If a woman with child eat thereof, or doe but ſtep over it, ſhe ſhall caſt her untimely birth out of her wombe.

As for Onopordon, they ſay if Aſſes eat thereof, they will fall a fizzeling and farting. Howbeit of vertue it is to provoke urine, and the monthly ſickneſſe of women: to ſtop a laske, to diſcuſſe and reſolve impoſtumes, and to heale them when they be broken and doe run. L

*Linaria or Toads-flax. * According to *Dioſcorides.*

*Oſyris putteth forth ſmall braunches of a browne colour, ſlender, pliable, and eaſie to wind; the ſame bee garniſhed with leaves *reſembling thoſe of Line or Flax, of a darke and duskiſh greene at firſt, but afterwards chaunging colour, and enclining to a red colour, and the ſeed is contained in thoſe braunches. Of theſe leaves are made certaine waſhing bals, to ſcoure womens skin, and make them looke faire. The decoction of the root beeing drunke, cureth thoſe that have the jaundiſe. The ſame roots, gathered before the ſeed bee ripe, cut into roundles, and dried in the Sunne, doe ſtop the laske: but drawne after that the ſeed is ripe, they repreſſe all catarrhes and fluxes of the bellie, if the patient drinke the ſupping wherein they are boiled. Alſo ſtamped ſimply, and ſo given in raine water, they have the ſame effect.

*Cuckowes meat, or Wood-ſorell.

*Oxys beareth three leaves and no more. This hearbe is ſingular to be given for a feeble ſtomacke which hath loſt all appetite to meat. They alſo who have a rupture, and whoſe guts be fallen downe, eat thereof to very good ſucceſſe. M

Polyanthemum, which ſome call Batrachion, hath a cauſticke qualitie, whereby it dooth bliſter

A ſter any unſeemely skars, by meanes wherof, reduceth them to their freſh and former colour. The ſame alſo applied, ſcoureth away the morphew, and bringeth the skin to the native hue, anſwerable to the reſt of the bodie.

Knot-graſſe is that hearbe, which the Greekes name Polygonon, and we in Latine, Sanguinaria: in leafe it reſembleth Rue, in ſeed common quich graſſe, and riſeth not from the ground but creepeth along. The juice of this hearbe conveighed up into the noſthrils, ſtaunch eth bleeding at the noſe. They who ſet downe many kinds of Polygonon, doe hold that this is to bee taken for the male, and by reaſon of the multitude of ſeed which it beareth is called *Polygonon: or for that it groweth ſo thicke in tufts, Calligonon. Others name it *Polygonaton, for the number of *knots or knees which it carieth. There be againe who give it the name Theuthalis: ſome
B call it Carcinetron, others Clema, and many Myrtopetalon. And yet I meet with ſome writers, who ſay that this is the female knot graſſe: and that the male is the greater, and not altogether ſo darke of colour, growing alſo thicker with knots, & ſwelling with ſeed under every leafe. Well; howſoever it is, the propertie of them both, the one as well as the other, is to bind and coole: and yet their ſeed *doth looſen the bellie; which if it be taken in any great quantitie, is diureticall and repreſſeth any rheums, provided alwaies that the patient be troubled therwith, otherwiſe it doth no good. The leaves are ſingular good to be applied unto the ſtomacke, for to aſſuage the heat thereof: in a liniment they mitigat the greefe of the bladder, and ſtop the courſe of ſhingles and ſuch like wild fires. The juice is ſoveraigne to be dropped alone by it ſelfe into the eares that run, and into the eyes to abate their paine. It is uſually given to the quantitie of two cyaths in Tertian
C agues, and Quartanes eſpecially, before the fit commeth: likewiſe for the feebleneſſe of the ſtomacke when it will keepe nothing: for the bloudie flix, and the rage of chollericke humours both upward and downeward. A third kind there is, which they call *Oreon, growing upon the mountaines, reſembling a tender reed: riſing up in one ſingle ſtem, but full of little knees or knots, and thoſe *couched and thruſt together. Leafed it is like the Pitch tree: the root needleſſe, and of no uſe: and generally the whole hearbe of leſſe ſtrength and operation than the former. Howbeit, this ſingular property hath it, to help the ſciatica. A fourth Polygonum there is, called the Wild; and this buſheth like a ſhrub or a pretie tree rather: the root is of a woodie ſubſtance, & the ſtock or plant of a reddiſh colour, reſembling the Cedar: it beareth braunches much like to Spart or Spaniſh broome, two ſpans long, jointed into three or four knots, and thoſe of a blackiſh colour.
D This alſo hath an aſtringent nature, and taſteth in the mouth like unto a Quince. The decoction thereof in water, untill the third part bee conſumed, or the pouder of it dried, is commended for the ſores in the mouth, and for any part that is fretted and galled. And the very ſubſtance thereof is good to be chewed, in caſe the gums be ſore. It repreſſeth the malignitie of eating corroſive ulcers and cankers: and in one word, ſtaieth the mallice of all ſores that run on end, and be untoward for to be healed: but a peculiar propertie it hath by it ſelfe to cure any ulcer occaſioned by the Snow. Our Herbariſts uſe this kind much for the Squinancie: and to eaſe the headach, make a guirland thereof, appointing it to be ſet upon the head: but to repreſſe any violent catarrhes, they preſcribe to weare it about the necke. In Tertian agues, ſome give direction to plucke it out of the ground with the left hand, and then to tie it to the arme or other part of the patient. And
E there is not an hearbe or plant that they be more carefull to keepe drie and to have alwaies ready at hand, than Polygonon, for to ſtanch any iſſue or flix of bloud whatſoever.

Pancration, which ſome chuſe rather to call the little Squilla or ſea-onion, beareth leaves reſembling the white Lillie, but that they be longer and thicker; with a great bulbous root, and the ſame in colour red. The juice of it taken with the flower of Ervile, maketh the bellie laxative: and outwardly applied, mundifieth ulcers. For the dropſie and hardneſſe of the ſpleene, it is given with honey in manner of a ſyrrup. Some take the root and boile it in water untill the liquor bee ſweet, which they poure forth; and then ſtampe the ſaid root, and reduce it into bals or troſches, which they lay to drie in the Sunne: and uſe them afterwards as occaſion ſerveth for the skals or ulcers of the head, and all other ſores that require mundification. Semblably, they give thereof
F as much as one may take up with three fingers in wine, for the cough, and in a liquid electuarie or lohoch for the pleuriſie and peripneumonie. They preſcribe it likewiſe to bee drunke in wine for the Sciatica: to allay alſo the gripes and wrings of the bellie, and to procure the monethly tearmes of women.

Peplos, called by ſome Syce, by others Meconion Aphrodes, from one ſmall root buſheth into

*of πολὺς many & γόνυ ſeeds.

*And yet *Scribonius* ſaith it is called Polygonon, becauſe it groweth every where ſo common.

*For γόνυ ſignifieth a knee or knot.

**Alvum ſolvunt.* If the place be not corrupt, as I doubt it is.

**Oreon, ab ὄρος* a mountaine. Some read ἀρεῖον, *i.* faire: others ὄρεον, for that it groweth like to an horſtaile, or the hearbe Hippuris.

**In ſefarctis.*

*A kind of Eſula.

**i.* Frothie Poppie.

into many braunches: the leaves bee like unto Rue, but that they bee ſomewhat broader: the G
ſeed appeareth under the leaves round, & (but that they be ſmaller) not unlike to the white Poppie. Ordinarily it is found among Vines, and they gather it in harveſt time. They hang it foorth ſeed and all together a drying, ſetting water underneath, that the ſaid ſeed or fruit may fall down into it. If it be taken in drinke, it purgeth the bellie, and doth evacuat both choller and fleagme. The meaſure of one acetable is counted an ordinarie and indifferent potion to be drunk in three hemines of mead or honied water. With this ſeed they uſe to pouder meats and viands, thereby to keepe the bodie ſoluble.

*Wood-bind. *Periclymenos is alſo a buſhie plant, and loveth to braunch much: it beareth whitiſh and ſoft leaves, diſpoſed two by two at certaine ſpaces and diſtances very orderly. In the top of the braunches it beareth hard ſeeds betweene the leaves, which hardly may be plucked off. It groweth in H
tilled corne fields and hedges, winding about every thing that it can catch hold of, for to ſupport and beare it up. The ſeed after it is dried in the ſhade, folke uſe to pun in a morter, and ſo to make it up into trochisks. In caſe that the ſpleene bee ſwollen or hard, they take of theſe troſches, and after they be diſſolved, give thereof a ſufficient quantitie in three cyaths of white wine for thirtie daies together: which drinke is of ſuch operation, that it will waſt and ſpend the ſpleene, partly by urine, which will appeare bloudie, and partly alſo by ſeege: and this will be perceived ſenſibly by the tenth day of the cure. The leaves alſo bee diureticall, and a decoction made with them, provoketh urine. The ſame likewiſe are good for thoſe that cannot draw their wind but ſitting with their bodie upright. Being drunke in like manner, they helpe women who are in ſore travell, to ſpeedie deliverance, and fetch away the after-birth.

*Some take it for *Securidaca*, i. Axfitch. As touching *Pelecinum, it groweth as I ſaid before among corne, braunching thicke, and I
garniſhed with leaves like unto the cich peaſe. It beareth ſeed in certaine cods, which crooke in manner of little hornes, and thoſe be foure or five in number together. The ſaid ſeed reſembleth Gith, ſo farre as ever I could ſee, and is bitter, but good for the ſtomacke: one of the ingredients that goe into antidots and preſervatives againſt poyſon.

Polygala reacheth up with a ſtem a ſpan high, in the top wherof it beareth leaves reſembling the Lentils, of an aſtringent taſt, which being drunke, cauſeth nources to have plentie of milke in their breaſts.

Poterion, or as ſome call it, Phrynion or Neurada, brauncheth and ſpreadeth much: armed it is with ſharpe prickes, and beſides, full of a kind of thicke downe: the leaves be ſmall & round: the braunches ſlender, long, ſoft, and pliable: the flower in forme long, of a graſſe green colour. K
The ſeed is of no uſe in Phyſicke, but of a quicke and ſharpe taſt, odoriferous alſo, and pleaſant to the ſmell. It is found growing as well in waterie places, as alſo upon little hils. Two or three roots it hath, which run downe two cubits deepe into the ground full of cords or ſinewes, white, and of a firme and hard ſubſtance. About Autumne they uſe to dig round about it, having before cut the plant it ſelfe above ground, which yeeldeth thereby a juice like unto a gum. The root is (by report) of wonderfull operation in healing wounds, and eſpecially of ſinewes cut in ſunder, if it be applied thereto in a liniment. Alſo the decoction thereof drunke with honey in manner of a ſyrrup, helpeth the feebleneſſe and diſſolution of the ſinewes, and namely, when they be wounded and cut.

L

Phalangites by ſome is called Phalangion, by others Leucanthemon, or, as I find in ſome copies, Leucacantha. Little braunches it putteth foorth, never fewer than twaine, and thoſe tending directly a contrarie way. The flowers white, faſhioned like the red Lillie: the ſeed blacke, broad, and flat, ſhaped after the manner of halfe a Lentill, but much leſſe: and the root is of a greeniſh colour. The leafe, flower, and ſeed of this hearbe is a ſingular remedie againſt the venomous ſting of ſcorpions, the ſpiders Phalangia, and ſerpents; alſo for the wringing torments of the bellie.

As for Phyteuma, ſomewhat elſe I have to doe rather than to deſcribe it, conſidering there is no uſe of it but in amatorious medicines to procure womens love.

There is an hearbe called by the Greekes Phyllon, growing upon ſtonie mountaines ſtan- M
ding much upon a rocke. The female of this kind is of a deepe greene colour, the ſtem is ſlender, the root ſmall, the ſeed round, and like to that of Poppie. This hearbe ſerveth for the getting and conceiving either of boies or girles, according as the male or or the female is uſed: which differ only in ſeed or fruit, which in the male reſembleth an Olive that is new come forth

and

A and beginneth onely to ſhew. But both of them are for the ſaid purpoſe to be drunke in wine.

Phellandrion groweth in moorie grounds, and in leafe commeth neare unto garden Perſley: the ſeed thereof is good to be drunke for the ſtone, and the infirmities incident to the bladder.

As for Phalaris, it hath a long ſlender ſtem like unto a reed, in the top whereof it beareth a floure bending downward; and the ſeed reſembleth that of Seſama: and this alſo breaketh the ſtone, if it be drunke in wine or vinegre, or otherwiſe with milke and honey. The ſame cureth the accidents of the bladder.

Polyrrhizon is leafed like unto the Myrtle, and hath many roots, which being bruiſed, are given in wine againſt the poiſon of ſerpents; not onely if men but alſo if foure-footed beaſts bee ſtung by them.

B *Proſerpinaca likewiſe, being otherwiſe a common hearbe, is counted a ſoveraigne remedie againſt ſcorpions: the ſame ſtamped and incorporat with fiſh-pickle and oile, is (by report) a ſingular medicine againſt the pricke of ſcorpions. Over and beſides, it is ſaid, that if it bee but held under the tongue, it refreſheth thoſe who be over-travailed or any waies wearied, ſo as they have loſt their ſpeech with verie faintneſſe: but in caſe it bee ſwallowed downe the throat, it procureth vomit, which alwaies is good and holeſome for the Patient.

* Thought to be the ſame that *Poligonia* or Knotgraſſe above-named.

As touching Rhacoma, it is brought unto us out of thoſe countries which are beyond the kingdome of Pontus: a root it is much reſembling the blacke Coſtus, but that it is ſmaller and ſomewhat redder; alſo without any ſmell; hot at the tongues end and aſtringent: being punned, it is of a wine colour inclining to ſaffron: a liniment made of this root, doth mitigat all impoſtumes and inflammations; healeth wounds, and appeaſeth the violence of any theums taking a courſe to the eyes, eſpecially if it be applied with cuit: all marks remaining after ſtripes, & other
C places of the skin blacke and blew, it taketh away, if they bee annointed with it and vinegre together: the powder therof is good to be caſt upon old morimals and ulcers untoward to be healed: and being to the weight of one dram taken in water, it is ſingular for them that caſt up bloud: moreover, in caſe of the dyſenterie and the flux proceeding from imbecillitie of the ſtomacke, it is an excellent medicine to be taken in wine, if the Patient be free of the ague; otherwiſe, it would be given in water. For to pun or ſtampe this root more eaſily, it had need to lie and ſoke in water over night: the decoction thereof is given to drinke in double meaſure or quantitie for thoſe that be plucked with the crampe, burſen, and bruiſed; or to ſuch as have tumbled downe from
D ſome high loft. In pains of the breſt, there had need ſome pepper and myrrhe to be put thereto: in caſe the ſtomacke be feeble and cleane done, it ought to be taken in cold water: and whether it be given inwardly or applied outwardly, it helpeth all thoſe that void up filthie matter from the parts beneath: likewiſe it cureth ſuch as have weake livers, hard or ſwelled ſplenes, and the Sciatica: it healeth the infirmities of the kidnies, ſhortneſſe of wind, & ſtreightneſſe of breath, namely, when a man is driven to ſit upright for it. The hoarſeneſſe and roughneſſe of the throat it cureth, if either the powder be taken to the quantitie of three oboli in cuit, or the decoction drunke. The filthy tettars called Lichenes it ſcoureth away, applied unto them in a liniment with vinegre. In drinke, it diſſolveth ventoſities, riddeth away-through colds, and namely the ſhiverings and ſhakings in cold agues: it repreſſeth the yex or hicquet, appeaſeth the wrings of the bellie, clee-
E reth the windpipes, diſpatcheth the poſe, the murre, and heavineſſe of the head; ſtilleth the dizzineſſe of the head and turning of the braine occaſioned by melancholly humors: and finally aſſuageth all painfull laſſitudes, and is ſingular good for cramps or convulſions.

About the towne Ariminum there groweth an hearbe commonly knowne by the name of Reſeda: it reſolveth and diſcuſſeth all impoſtumes: it reduceth alſo into temperature any inflammation. But they that uſe to cure with this hearbe, muſt when they lay it to the place, ſay withall theſe words following; *Reſeda, morbos Reſeda, ſciſne ſciſne, quis hic pullos egerit? Radices nec caput nec pedes habeant.* That is to ſay, *Reſeda, cauſe theſe maladies to ceaſe: knoweſt thou, knoweſt thou, who hath driven theſe pullets here? Let the roots have neither head nor foot.* This charme (I ſay) they muſt pronounce three times over, and ſpit upon the ground as often.

F To conclude, Stœchas groweth in thoſe Iſlands onely which carrie that name and be called Stœchades: an odoriferous hearbe it is, bearing leaves like unto hyſſope, and is bitter in taſt: taken in drinke, it procureth womens moneths, and doth mitigat the pains of the breaſt. Alſo it is one of the ſpecies or ingredients entring into the preſervative compoſitions called Antidots.

G

Chap. xiii.

Of Nightshade: of Smyrnium, and Telephium. Of Trichomanes, Thalictrum, and Thlaspi. Of Tragonia, Tragonis, Tragum, Tragopogon, and Spondylis. Also, that some diseases are not incident to certaine countries.

NIghtshade, called in Latine Solanum, the Greeks name Strychnos, as saith *Cornelius Celsus:* an hearbe this is which hath a vertue repercussive and refrigerative.

Loveach, named otherwise Smyrnium, hath a stem like unto Persley, and the leaves be larger: it putteth forth many sions or imps from about the stem: and out of their concavities H there spring certaine fattie leaves, and those hanging as if they were broken, toward the ground; having an aromaticall smell, joyned with a certaine acrimonie which is not unpleasant: of a colour enclining to a weake and faint yellow. The stem beareth in the head certaine round spokie tufts in manner of Dill. The seed round and blacke, which waxeth to bee drie in the beginning of summer. The root is likewise redolent; but in tast quicke and biting, full of juice, soft and tender: the rind of which root, is blacke without, but pale within: the odour which it hath, testifieth the qualitie of myrrhe, whereupon it tooke the name * Smyrnium. This hearbe groweth upon hills, as well such as be rockie as those that bee altogither earthie. The nature of it generally, is to heat and extenuat. The leaves and root both provoke urine, and the monethly terms of women. The seed knitteth the belly, and staieth a laske. The root used in a liniment, discusseth all I impostumes, as well broken as not broken, so that they bee not inveterat and of long continuance: and in one word, resolveth all hardnesse in the flesh. Soveraigne it is against the pricke of the venomous spiders Phalangia, and the sting of serpents, being drunke in wine with Cachrys, Polium, or Baulme; with this charge, That it be taken peecemeale: for if it were taken entire and whole, it would provoke vomit: and for this cause otherwhiles it is given with rue. The seed or root, chuse whether you will, cureth the cough and difficultie of breath, when the Patient cannot take his breath but sitting upright. In like manner, it helpeth those who are diseased in the chest, spleene, reines, and bladder. The root hath a particular propertie to heale ruptures and convulsions: the same giveth speedie deliverance to women in travaile of child, and expelleth the after-birth: also for the Sciatica it is given in wine togither with Crestmarine, otherwise called Sampier: it procureth sweat, breaketh wind upward, and causeth rifting; whereby it riddeth K the stomacke of the ventosities that trouble it: it healeth wounds and bringeth them to cicatrize or skin againe. Out of the root there is a juice also pressed, good in womens infirmities, and in the maladies incident to the chest and precordiall parts; for it cleanseth, encreaseth naturall heat, and helpeth digestion. The seed hath a speciall operation to cure them that have a dropsie, given in drinke; like as the juice also applied in a liniment; and the rind of the foresaid root drie, incorporat in an emollitive cataplasme. Moreover, it is much used in meats togither with honyed wine, oile, fish-sauce named Garum, but principally if flesh meats be boiled togither therewith. It helpeth concoction in the stomacke, as having a savour and tast much like unto pepper. The same is right effectuall to allay the paine of the said stomacke. L

* For *Smyrna* in Greeke is myrrhe.

* Orpine.

As touching * Telephium, it is an hearbe in leafe and stem resembling Purcellane: immediatly from the root there spring seven or eight small shoots or braunches, and those garnished with grosse and fleshie leaves. It loveth to grow in toiled grounds, but principally among vines: whiles it is greene, it serveth in a liniment to fetch out spots and freckles in the visage: for which purpose also, it is good drie, beeing brought into powder: it mundifieth the skin also from the morphew, so that the place be annointed therewith every day or night six houres togither, for the space of three moneths, and afterwards well rubbed with barley meale. It healeth wounds besides and cureth fistuloes.

The Maidenhaire called in Greeke Trichomanes, is like unto Adiantum, only it is more slender and blacker: the leaves grow thicke in manner of Lentils, one over-against another, and M the same be bitter in tast. The decoction of this hearbe sodden in white wine, and so drunke with wine or rusticke cumin, cureth the strangurie: the juice keepeth the haire on the head, which is readie to fall off; or if it be shed alreadie, causeth new to come up againe in the place. The same beeing beaten to powder and incorporat with oile into a liniment, maketh the haire to grow thicke,

A thicke, where it is thin by occaſion of the infirmitie Alopecia. If it be taſted at the tongues end, it provoketh ſneezing.

Thalictrum [otherwiſe named Thalictrum] hath leaves made like unto Coriander, ſave that they be ſomewhat fattier, and in the ſtem reſembleth Poppie: it liketh any ground, but loveth eſpecially to grow upon plains: the leaves incorporat with honey, heale any ulcers.

Thlaſpi or Thlaſpe, is of two kinds: The one with narrow leaves, a finger long, and as broad as a finger breadth: the ſame grow inclining toward the ground, and in the head divided or ſlit: the ſtem is but ſlender and halfe a foot high, howbeit not altogither naked and without braunches. In forme, the fruit or cod reſembleth a buckler, encloſing ſeed within not unlike in ſhape to Lentils, but that it ſeemeth cruſht and broken, whereupon the plant tooke the name Thlaſpi:
B the floure which it beareth, is whitiſh. This hearb growethordinarily about common foot-paths and in hedges. The ſeed in taſt is hot and unpleaſant, working upon choller and fleame, which humours it doth evacuat upward and downward: the right doſe whereof is the meaſure of one acetable for a potion. Good it is alſo for the Sciatica, being miniſtred in a clyſtre untill it bring away bloud. Moreover, it procureth women their deſired ſickneſſe; but if they bee with child, it killeth that which they goe withall. The ſecond Thlaſpi, which ſome call the Perſian * Napi, hath broad leaves and great roots: this hearbe alſo is good to be clyſterized for the Sciatica: and as well the one as the other is ſoveraigne for the tumors or riſings in the ſhare: but the partie who gathereth it muſt have in charge to plucke it up with one hand, and ſay withall, That hee taketh it for the botches in the ſhare, for all impoſtumes and wounds.

*Or rather *Sinapi*, i. Senvie.

C As for Trachinia, I find not in any writer what manner of hearbe it ſhould be: and verely, I cannot beleeve that *Democritus* reporteth truly of it as he doth: for monſtrous it is and incredible which he promiſeth of it, namely, That in three daies it will waſt the ſplene, if the Patient do but weare it tied to any part of the bodie.

Tragonus or Tragion groweth upon the ſea-coaſts of the Iſland Candie onely: an hearbe in ſeed, leafe, and braunch, verie like vnto the Iuniper: a juice or liquor it yeeldeth reſembling milke, which gathering thicke to the conſiſtence of a gum, with once laying too, draweth forth arrow heads, thorns, or whatſoever ſticking within the fleſh: for which purpoſe, it ought to bee ſtamped greene, and ſo made into a liniment with wine; or elſe the powder of it drie, muſt be incorporat with honey. The ſame cauſeth nources to have good ſtore of milke in their breaſts,
D and is beſides an excellent medicine for the ſores and diſeaſes incident to that part.

There is another hearbe called Tragos, which ſome name alſo Scorpion: it groweth halfe a foot high, putting forth many ſhoots and braunches, but without leaves; in ſtead whereof you ſhall ſee prettie little berries or grapes (as it were) of a ruddie colour, of the bigneſſe of wheat corns, and pointed ſharpe in the head. This hearbe likewiſe groweth by the ſea ſide. Of theſe berries, ten or twelve kernels dried and beaten into powder, and ſo taken in wine, doe helpe the flux proceeding from a weake and feeble ſtomacke; in like manner thoſe alſo that have a bloudie flix, and that reach up bloud. They cure likewiſe women of the extraordinarie ſhifts of their monethly fleurs.

Moreover, there is an hearbe called Tragopogon, which others name Come: the ſtem
E thereof is ſmall, the leaves like unto thoſe of Saffron, the root long and ſweet; bearing aloft upon the top of the ſtem a certaine cup, which is broad and large, with blacke ſeed within it. In rough places it groweth commonly, among greeves and buſhes; but goodneſſe there is little or none at all in it.

Thus much verely as touching Hearbs, I thought memorable and worth the writing, which either I have ſeen my ſelfe, or learned from others: howbeit, for a farewell to this treatiſe, I thinke it not amiſſe to advertiſe the reader thus much more concerning Hearbs, That ſome of them keepe their ſtrength and vertue longer than others: for, as I have before noted, Elaterium continueth a world of yeers: the blacke Chamæleon laſteth fortie yeers good: but Centaurie will not endure above twelve: Harſtrang, Ariſtolochia, and the wild vine, may be preſerved ſound one
F yeere in the ſhade. Moreover, this would be obſerved, That of the hearbs above-named, there is not a living creature whatſoever will touch the roots, unleſſe it be Spondylis (and that is a kind of ſerpent) which indeed ſpareth none.

As for this one point, namely, that the roots of hearbs bee leſſe in force and of weaker operation, in caſe the ſeed be ſuffered to ripen upon the plant, no man maketh any doubt: as alſo

that their seeds be nothing so effectuall, if incision were made in the roots for to draw juice out of them, before the said seed is fully ripe. G

Furthermore, this is knowne and found by experience, That the ordinarie use of all Simples doth alter their properties and diminish their strength; insomuch, as whosoever is daily accustomed unto them, shall not find when need requires, their vertue powerfull at all, either to doe good or to worke harme, as others shall who seldome or never were acquainted with them.

Over and besides, all hearbs be more forcible in their operations, which grow in cold parts, exposed to the Northeast winds, likewise in drie places, than in the contrarie.

Also there is no small difference to be considered between nation and nation: for, as I have heard them say who are of good credit, as touching worms and such like vermin, the people of Ægypt, Arabia, Syria, and Cilicia, be troubled and infested with them: whereas contrariwise, some Græcians and Phrygians have none at all breeding among them. But lesse marvaile there is of that, considering how among the Thebans and Bœotians (who confine upon Attica) such vermin is rife and common; and yet the Atheniens are not given at all to engender and breed them: the speculation whereof, carrieth me away againe unto a new discourse of living creatures, and their natures; and namely, to fetch from thence the medicines which Nature hath imprinted in them, of greater proofe and certaintie than any other for the remedie of all diseases. Certes, this great Mother of all things, entended not that any living creature should serve either to feed it selfe onely, or to be food for to satisfie others; but her will was and shee thought it good, to insert and engraffe in their inward bowels, holesome medicines for mans health, to countrepoise those medicinable vertues which shee had engraven and bestowed upon those surd and senslesse hearbs: nay her providence was such, that the soveraigne and excellent means for maintenance of our life, should bee had from those creatures which are endued with life: the contemplation of which divine mysterie, surpasseth all others, and is most admirable. H I

THE XXVIII. BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS. K

Chap. I. L

The medicinable vertues of living creatures.

HAving discovered as well all those things which are engendred between Heaven and Earth, as also their natures; there remained nothing for me to discourse of, save onely the Minerals digged out of the ground: but that this late Treatise of mine, as touching the medicinable properties of Hearbs, Trees, and other plants, draweth me quite aside from my purpose, and haleth me backe againe, to consider the foresaid living creatures themselves (even the subject matter of Physicke) in regard of greater meanes found out even in them, to advaunce Physicke and cure diseases. For, to say a truth, since I have described and pourtraied both Herbs & Flours, since I have discovered many other things, rare and difficult to be found out; should I conceale such meanes for the health of man, as are to bee found in man himselfe? or should I suppresse other kind of remedies which are to bee had from creatures living amongst us, as wee doe, if they may benefit us? especially seeing that our verie life is no better than torment and miserie, unlesse M

we

A we be free from paine and ſickneſſe? No verely; and far be it from me that I ſhould ſo doe. But on the contrarie ſide, I will doe my beſt endeavour to perfourme and finiſh this taske alſo, how long and tedious ſoever it may ſeeme to bee: for my full intent and reſolution is, ſo I may benefit poſteritie and doe good to the common life of man, the leſſe to reſpect the pleaſing of fine eares, or to expect thanks from any perſon. And to bring this my purpoſe about, I meane to ſearch into the cuſtoms of forrein countries, yea and to lay abroad the rites and faſhions of barbarous nations, referring the readers who ſhall make ſcruple to beleeve my words, unto thoſe authours whome I alledge for my warrant. And yet herein, this care I have ever had, To make choiſe in my reports of ſuch things as have been held and in manner adjudged true, by a generall conſent and approbation of all writers; as coveting to ſtand more upon the choiſe ſubſtance, than the
B varietie and plentie of matter. But before I enter into this argument, I thinke it verie neceſſarie to advertiſe the reader thus much, That whatſoever I have heretofore written of living creatures, concerneth the inſtinct of Nature wherewith they be endued, and certaine ſimples wherof they have giuen us the knowledge (for ſurely, as much good have they done unto us by the medicinable hearbs by them found out, as poſſibly they can by the remedies which themſelves doe afford from their owne bodies:) But now it remaineth, to ſhew ſimply the medicinable & helpfull properties in themſelves, which notwithſtanding in the former treatiſe were not altogither left out and paſſed over. And therefore this my preſent diſcourſe of thoſe creatures, howſoever it is in nature different, yet it dependeth of the other. Begin then I will at Man himſelfe, to ſee what Phyſick there may be found in him to helpe his neighbour. In which firſt entrance of mine, there
C preſenteth it ſelfe unto mine eye, one object that troubleth and offendeth my mind exceeding much. For now adaies you ſhall ſee them that are ſubject to the falling evill, for to drinke the verie bloud of Fencers and Sword-plaiers as out of living cups: a thing, that when we behold within the ſame ſhew-place, even the tygres, lyons, and other wild beaſts to doe, we have it in horrour as a moſt fearfull and odious ſpectacle. And theſe monſtrous minded perſons are of opinion, That the ſaid bloud forſooth is moſt effectuall for the cure of that diſeaſe, if they may ſucke it breathing warme out of the man himſelfe; if they may ſet their mouth (I ſay) cloſe to the veine, to draw thereby the very heart bloud, life and all: how unnaturall ſoever otherwiſe it bee holden for a man to put his lips ſo much as to the wounds of wild beaſts, for to drinke their bloud. Nay, there be others that lay for the marow-bones, the very braine alſo of young infants, and never
D make ſtraunge to find ſome good meat and medicine therein. Yee ſhall find moreover among the Greeke writers not a few, who have deſciphered diſtinctly the ſeverall taſts as well of every inward part, as outward member of mans bodie; and ſo neare they have gone, that they left not out the paring of the verie nails, but they could picke out of them ſome fine Phyſick: as if health conſiſted in this, That a man ſhould become as bloudie as a ſavadge beaſt; or that be counted a remedie, which in deed is cauſe of a miſchiefe and maladie. And well deſerve ſuch bloud-ſuckers and cruell leeches to be fruſtrat of their cure, and thereby to worke their owne bane and deſtruction: for if it be held unlawfull and abominable to prie and looke into the entrails and bowels of a mans bodie, what is it then to chew and eat them? But what monſter was hee, who firſt broched this geare, and deviſed ſuch accurſed drugs! Ah wicked wretch, the inventer and artificer
E of theſe monſtroſities; thou that haſt overthrowne all law of humanitie; for with thee will I have to doe, againſt thee will I whet my tongue and turne the edge of my ſtyle, who firſt didſt bring up this bruiſh leechcraft, for no other purpoſe but to bee ſpoken of another day, and that the world might never forget thy wicked inventions. What direction had he who thus began to devoure mans bodie lim by lim? nay, what conjecture or gueſſe moved him ſo to doe? what might the originall and foundation be, whereupon this deviliſh Phyſicke was grounded? what ſhould he be that bare men in hand, and would perſuade the world, That the thing which is uſed as a poiſon in witchcraft and ſorcerie, ſhould availe more to the health of man, than other knowne and approoved remedies? Set caſe that ſome barbarous people uſed ſo to doe: ſay that ſtraunge nations and far remooved from all civilitie, had theſe manners among them, muſt the Greekes
F take up thoſe faſhions alſo, yea & credit them ſo much as to reduce them into a method, among other their goodly arts? And yet ſee what *Democritus* one of them hath done? there be extant at this day books of his enditing and penning, wherein you ſhall read, That the ſcull of a wicked malefactor, is in ſome caſes better than that of an honeſt perſon; and in other, That of a friend and gueſt, preferred before a ſtraunger. As for *Apollonius*, another of that brood, hee hath writ-

ten, That if the gumbs be ſcarrified with the tooth of a man violently ſlaine, it is a moſt effectuall G
and preſent remedie for the tooth-ach. *Artemon* had no better receit for the falling ſickneſſe, than to draw up water out of a fountaine in the night ſeaſon, and to give the ſame unto the Patient to drinke in the brain-pan of a man who died ſome violent death, ſo he were not burnt. And *Antheus* tooke the ſcull of one that had been hanged, and made pills thereof, which hee miniſtred unto thoſe who were bitten by a mad dog, for a ſoveraigne remedie. Moreover, theſe writers not content to uſe theſe ſorceries about men, emploied the medicines alſo of the parts of man to the cure of foure-footed beaſts; and namely, if kine or oxen were dew-blowne or otherwiſe puffed up, they were woont to bore holes through their horns, and ſo to inlay or interlard them (as it were) with mens bones: finally, when ſwine were diſeaſed, they tooke the fine white wheat Siligo, being permitted to lie one whole night in the very place where ſome men were kil- H
led or burnt, and gave it them to eat. As for mee, and all us that are Latin writers, God forbid we ſhould defile our papers with ſuch filthineſſe: Our intention is to put downe in writing, thoſe good and holeſome medicines which man may affourd unto man, and not to ſet abroad any ſuch deteſtable and heinous ſorceries: As for example, to ſhew what medicinable vertue there may be in breaſt-milke of women newly delivered; what healthfull operation there is in our [faſting] ſpittle; or what the touching of a man or womans bodie may availe in the cure of any maladie; and many other ſemblable things ariſing from naturall cauſes. For mine owne part verely, I am of this mind, That we ought not ſo much to make of our health or life, as to maintain and preſerve the ſame by any indirect courſe and unlawfull means: And thou, whoſoever thou be, that doeſt addict thy ſelfe to ſuch villanies whiles thou liveſt, ſhalt die in the end a death anſwe- I
rable to thy beaſtly and execrable life. To conclude therefore, let every man for to comfort his heart, and to cure the maladies of his mind, ſet this principle before his eies, That of all thoſe good gifts which Nature hath beſtowed upon man, there is none better than to die in a fit and ſeaſonable time: And in ſo doing, this is ſimply the beſt, *That in his power it is, and the means he hath, to chuſe what death hee liſt.

* Looke for no better divinitie in *Plinie*, a meere Pagan, Epicurean, and profeſſed Atheiſt.

Chap. II.

Whether Words, Spels, or Charmes, are availeable in Phyſicke. Alſo whither wonders and ſtrange prodigies may be either wrought and procured, or put by and avoided by them, or no. K

THe firſt point, concerning the remedies medicinable drawne from out of man, which moveth the greateſt queſtion, and the ſame as yet not decided and reſolved, is this, Whether bare Words, Charmes, and Enchauntments, be of any power or no? If it be granted Yea, then no doubt ought wee to aſcribe that vertue unto man. But the wiſeſt Philoſophers and greateſt Doctors, take them one by one, doubt thereof, and give no credit at all thereto. And yet goe by the common voice of the whole world, you ſhall find it a generall beleefe, and a blind opinion alwaies received, whereof there is no reaſon or certaine experience to ground upon. For firſt and formoſt we ſee, that if any beaſt be killed for ſacrifice without a ſett forme of praier, it is to no purpoſe, and held unlawfull: ſemblably, if theſe invocations bee omitted, when as men ſeeke to L
any Oracles, and would be directed in the will of gods by beaſts bowels or otherwiſe, all booteth not, but the gods ſeeme diſpleaſed thereby. Moreover, the words uſed in craving, to obtaine any thing at their hands, run in one forme; and the exorciſmes in diverting their ire, & turning away ſome imminent plagues, are framed after another ſort: alſo there bee proper tearmes ſerving for meditation onely and contemplation. Nay, we have ſeene and obſerved, how men have come to make ſuit and tender petitions to the ſoveraigne and higheſt magiſtrats, with a preamble of certaine ſet praiers. Certes, ſo ſtrict and preciſe men are in this point about devine ſervice, that for fear leaſt ſome words ſhould be either left out, or pronounced out of order, there is one appointed of purpoſe as a prompter to read the ſame before the prieſt, out of a written booke, that hee miſſe not in a tittle; another alſo ſet neare at his elbow, as a keeper to obſerve and marke, that he M
faile not in any ceremonie or circumſtance; and a third ordained to goe before and make ſilence, ſaying thus to the whole aſſembly and congregation, *Favete linguis*, [*i.* ſpare your tongues and be ſilent:] and then the fluits and haut-bois begin to ſound and play, to the end that no other thing bee heard for to trouble his mind or interrupt him the while. And verely, there have been

A been memorable examples knowne of ſtrange accidents enſuing both waies, namely, as often as either the unluckie foules by their untoward noiſe * have diſturbed and done hurt, or if at any time there have been error committed in the preſcript praier & exorciſme: for by this meanes it falleth out oftentimes, that all on a ſuddaine as the beaſt ſtandeth there in place to be ſacrificed, the maiſter veine in the liver, named the head thereof, is found miſſing among other entrailes, and the heart likewiſe wanting: or contrariwiſe, both theſe to bee double and appeare twaine for one. And even at this day there remaineth a moſt notable precedent and example to all poſteritie, in that preſcript forme of exorciſme, whereby the two *Decij*, both the father and ſonne, betooke themſelves to all the helliſh furies and fiends infernall: Moreover, the imprecation of the veſtall Nun *Tuccia*, when ſhee was put to proove her virginitie, continueth extant upon record; by vertue of which charme ſhee carried water in a ſieve without ſhedding one drop: which happened in the yeare after the foundation of Rome citie 609. And verely, no longer agoe than of late time in our owne age, wee ſaw two Grecians, to wit a man and a woman, yea, and ſome of other nations, with whome in thoſe daies wee maintained warres, buried quicke within the beaſt market in Rome: in which manner of ſacrifice, whoſoever readeth the praier or exorciſme that is uſed, and which the Warden or principall of the Colledge of the Quindecemvirs is wont to read & pronounce to the exorciſt; he would no doubt confeſſe, that ſuch charmes & execrations be of great importance: and namely, ſeeing they have ben all approved and found effectuall by the experience and events obſerved for the ſpace of * eight hundred and thirtie yeares. As for our veſtall virgins in theſe our daies, wee are certainely perſuaded and beleeve, that by the vertue of certaine ſpels and charmes which they have, they be able to arreſt and ſtay any fugitive ſlaves for running one foot farther, provided alwaies, that they be not gone alreadie without the pourpriſe and precinct of the citie walls. Now if this be received once as an undoubted and confeſſed truth, and if we admit that the gods doe heare ſome praiers, or be moved by any words; then ſurely we may reſolve at once of theſe conjectures, and conclude affirmatively of the maine queſtion. Certes, our aunceſtours from time to time have evermore beleeved and delivered ſuch principles, yea, and that which of all other ſeemeth moſt incredible, they have affirmed conſtantly, That by the power of ſuch charms and conjurations, thunder and lightening might bee fetched downe from above (according as I have ſhewed in place convenient.) *L. Piſo* reporteth in the firſt booke of his Annales or yearly Chronicles, that *Tullus Hoſtilius* king of Rome, was ſtricken dead with lightening, for that when hee went in hand to call *Iupiter* downe out of heaven, by vertue of a ſacrifice which king *Numa* was wont to uſe in that caſe, hee had not obſerved exactly all the exorciſmes and ceremoniall words contained in thoſe books of king *Numa*, but ſwerved ſomewhat from them. And many other writers doe teſtifie, that by the power of words and oſſes, the deſtinies and prodigies of great importance preſaged to one place, have beene cleane altered and transferred to another: as it was like to have happened to the Romanes, at what time as they laid the foundation of *Iupiters* temple upon the mount or rock Tarpeius. For when they digged there for the foundation of the ſaid temple, and chaunced to find within the ground a mans head; the Senat of Rome ſent certain embaſſadours of purpoſe to the Sages and Wiſards of Tuſcane, to know the ſignification of this ſtraunge ſight and miraculous occurrent. Whereof *Olenus Calenus* (who was reputed the moſt famous devinor and prophet of all the Tuſcanes) having ſome intelligence, and foreſeeing the great felicitie and happineſſe that it imported and preſaged, intended by a ſubtile interrogative to tranſlate the benefit thereof to his owne native countrey of Tuſcane. Having therefore firſt with a ſtaffe ſet out and deſcribed (as it were) the modell and form of a temple, upon the ground which lay before him; he came about the Romane embaſſadours beforeſaid, and queſtioned with them in this wilie manner: Is it ſo Romanes as you ſay? And are theſe your words indeed? There muſt be a temple here of *Iupiter* that moſt gracious and mightie god: We have light here upon a mans head. Vnto which interrogation of his, the ſaid Roman embaſſadours according to the inſtructions which they had received beforehand from the Wiſard or Divinors ſonne, anſwered in this manner: No, not here in this very place, but at Rome (we ſay) the head was found. And verely, our auncient Chronicles doe all of them moſt conſtantly affirme, that had they not been thus forewarned and taught what to ſay, but had ſimply anſwered Yea, here we have found a head, &c. The fortune of the Romane State and Empire had gone quite away to the Tuſcanes, and been eſtabliſhed among them. The ſame had like to have happened a ſecond time, as wee may ſee in the records and monuments of old date,

* Which is called *Obnuntiatio dicarum*, as wee may read in *M. Tull. de Divinatione*, 1.

* In which yeare it ſeemeth *Plinie* wrote this worke.

date, when as a certaine chariot with foure horses, made of cley, and prepared for to be set upon the laver or lanterne of the said temple, chaunced as it lay baking in the furnace to grow into an extraordinarie bignesse. For the foresaid Wise men of Tuscane being asked what the said prodigie should betoken, practised the like, as *Olenus* did: but the Romanes beeing wise and warie in their words, saved and retained the same fortune still for the behoose of Rome, which was presaged unto them by that happie foretoken. These examples may suffice to shew & proove evidently, that the vertues and significations of these signes and presages doe lie in our owne power: and are no otherwise of force and effect, but according as every one of them is so taken * and accepted. True it is, and held for an undoubted principle in the Augures discipline and learning, That neither cursed execrations, ominous and unluckie birds, nor any other presage by their flight singing and feeding, can touch those persons who take no heed of them, and doe protest plainly, that they regard them not, what businesse soever they goe about and be entring into: A greater gift than which, and testimonie of the divine indulgence and favour of the gods unto us, we cannot have, thus to subject their secrets to our puissance. Moreover, in the lawes and ordinances of the twelve tables here at Rome, are not in one place these very words to be found, *Qui fruges occentasit*, [*i. Whosoever shall enchaunt or forespeake any corne or fruits of the earth*:] and in another place, *Qui malum carmen incantasit*, [*i. What person soever useth pernicious charmes to the hurt or mischeese of any creature*?] Over and besides, *Verrius Flaccus* doth affirme upon the credit of certaine authors which he alledgeth and beleeveth, That the first thing which the ancient Romans were wont to doe at the siege and assault of any towne or citie, was by their priests to conjure and call forth that god or goddesse which was the patron or patrones thereof; and withall to promise unto the said god or goddesse, either the same place againe, or else a greater and more spacious seat; yea, and the like divine worship, or better, among the Romanes: and even at this day our Pontifies or Bishops have the charge of this sacred ceremonie among other functions belonging to their ministerie. And hereupon well knowne it is, that for this cause and nothing else, it was never divulged abroad, what god was the protector and patrone of Rome cittie, for fear least some of our enemies should assay to conjure him forth, and deale by us as wee doe by them. Furthermore, who is ther that is not afraid of all maledictions and cursed execrations; and especially when the *names of the infernall fiends or unluckie foules are used in such bannings? For feare likewise of some harme, see wee not that it is an usuall thing to *crush and breake both egge and fish shels, so soone as ever the meat is supped and eaten out of them; or else to bore the same through with a spoone stele or bodkin? From hence came those amatorious eidyls and eclogues of *Theocritus* among Greeke Poets, of *Catullus* and *Virgil* among us, full of amorous charmes, in imitation of such exorcismes and conjurarions indeed. I assure you many folke there be of this beleefe, That by certain spels and words in manner of charmes, all the pots and vessels of earth baking in a furnace, may bee cracked and broken, without touching them at all. And there are not a few who are persuaded for certaine, that even the very serpents as they may bee burst by enchauntment, so they can unwitch themselves: and that as brutish otherwise and earthly as they be, yet in this one thing they have a quicke sence and understanding, insomuch, as at the charmes of the Marsians they will shrinke from them and draw in their bodies round into a knot, though it were in the night season when they lie asleepe. Some there be also that when a skarefire hath taken an house, write certaine *words upon the walls, and thereby limit and confine the fire, that it shall goe no farther. Certes, I am not able to say, whether straunge, forain, and ineffable words hard to bee pronounced, are more availeable to the effecting of these incredible things, or our Latin words, comming out at a venture unlooked for and spoken at randon: which must needs seem ridiculous in our judgement, seeing that the spirit and mind of man, expecteth alwaies some great and mightie matter in these conjurations and exorcismes, which may carie a majestie therewith to encline and move the gods to mercie and favour, or rather indeed to commaund their heavenly power perforce. But to proceed, *Homer* the Poet hath written, that prince *Vlyxes* being wounded in the thigh, staunched the bloud with a charme. And *Theophrastus* testifieth, that there be proper spels to cure the Sciatica. *Cato* hath left in writing, that there is a speciall charme for dislocations, whereby any bone put out of joint may be set againe. And *M. Varro* reporteth the like vertue of certaine good words for the gout. As for *Cæsar* the Dictatour, it is commonly said of him, that having beene once endaungered with the fall or overthrow of his coach wherein he rode, would never afterwards ride in coach againe, unlesse so soone as ever hee had

*Whereupon it was thought materiall to speake in this manner *Accipio omen*. For otherwise it availed not.

*As in saying thus, The Devill take thee, or, The Ravens peck out thine eies, or I had rather see thee Pie peckt: and such like.

* Because afterwards no witches might pricke them with a needle in the name and behalfe of those whom they would hurt and mischeefe, according to the practise of pricking the images of any person in wax; used in the witchcraft of these daies.

*That is to say *Avse verse*, out of *Afranius*, as *Festus* noteth, which in the old Tuscane language signifieth *Averte igneum*: Put backe the fire: * or rather the sonnes of *Autolicus*, in his *Odyssea*.

A had taken his place, and before that he ſet forward upon his way, hee had pronounced a certaine charme that he had in ſtore: and perſuaded he was, that if hee ſaid it over three times together, he ſhould come by no miſchaunce in his journey, but travell in ſecuritie. A thing that I know many now adaies to practiſe ordinarily as well as he. But for farther proofe and confirmation of this opinion, I report mee to every mans conſcience and knowledge; to that (I ſay) which there is not one but knoweth: What is the cauſe I pray you, that the *firſt day of every yeare wee ſalute one another for lucke ſake, with wiſhing a good new yeare? What is the reaſon, tell me, that in all our publicke proceſſions and generall ſolemnities every fift yeare for the health and good eſtate of the cittie, they *made choiſe of ſuch perſons for to lead the beaſts appointed to ſacrifice, whoſe *names were good and fortunat? Or how commeth it about, that for to prevent or divert witch-
B craft and ſorcerie, we obſerve a peculiar adoration, and invocat upon the Greekiſh [goddeſſe of vengeance] *Nemeſis*; in which regard onely, wee have her ſtatue or image ſet up in the Capitoll, notwithſtanding wee know not yet what name in Latine to give her? How is it, that in making mention of thoſe that be dead, we ſpeake with reverence and proteſt that we have no meaning to diſquiet their ghoſts thereby, or to ſay ought prejudiciall to their good name and memoriall? If there be nothing in words, how happeneth it I would faine know, that wee have ſuch an opinion of odde numbers, beleeving that they be more effectuall in all things than the even? A matter I may tell you of great conſequence, if we doe but obſerve the criticall daies in fevers. Alſo in the gathering of our firſt fruits, be they Peares, Apples, Figges, &c. wherefore uſe we to ſay, Theſe be old, God ſend us new? What moveth us to wiſh health and ſay, God helpe, or bleſſe, when one
C ſneezeth? for even *Tiberius Cæſar*, who otherwiſe was knowne for a grim ſir, and the moſt unſociable and melancholicke man in the world, required in that manner to bee ſalved and wiſhed well unto, whenſoever he ſneezed, though he were mounted in his chariot. And ſome there be who in this caſe ceremoniouſly doe ſalute the partie by name, and thinke there is a great point of religion lies in that. Moreover, is not this an opinion generally received, That when our ears do glow and tingle, ſome there be that in our abſence doe talke of us? *Attalus* avoucheth for a certaintie, that if a man chaunce to eſpie a ſcorpion, and doe no more but ſay this one word *Duo, the ſerpent will be ſtill and quiet, and never ſhoot forth his ſting. And now ſeeing by occaſion of mentioning a ſcorpion, I am put in mind of Affricke, you ſhall underſtand thus much, that throughout all that countrey there is not one goeth about to doe any thing, but before he begins he ſaith
D this word *Africa. As for other nations, in every enterpriſe that men take in hand, they uſe the name of their gods, and pray ordinarily, that it would pleaſe them to give a grace and bleſſing to their attempts. As for this ceremonie, namely, when the table is ſpread & furniſhed with viands, to lay a ring from the finger upon it, wee ſee it commonly and orderly practiſed; and that it is of force to put by many ſcrupules and religious doubts it is very evident. You ſhall ſee ſome men to take the ſpittle out of their mouths, and conveigh it with their fingers end behind the eare, for to rejoice the heart and drive away all penſiveneſſe and melancholicke fanſies that trouble the mind. And to bend or bow downe the thumbes when wee give aſſent unto a thing, or doe favour any perſon, is ſo uſuall, that it is growne into a proverbiall ſpeech, to bid a man put downe his thumbe in token of approbation. In adoring the gods and doing reverence to their images, wee
E uſe to *kiſſe our right hand and turne about with our whole bodie: in which geſture the *French obſerve to turne toward the left hand; and they beleeve that they ſhew more devotion in ſo doing. As touching the manner of worſhipping and adoring flaſhes of lightening, all nations with one accord and conformitie doe it with a kind of *whiſtling or chirping with the lips. If there bee mention made of skarefires at the table as we ſit at meat, we hold it ominous, but wee turne away the perilous preſage thereof, by ſpilling and caſting water under the bourd. When one riſeth from his meat and is readie to depart, if they of the houſe goe in hand preſently for to ſweepe the floore and make all cleane: as alſo to take away diſhes, trenchers, &c. upon the bourd; or to remoove the cupbourd of plate, & liverie table, whiles one of the gueſts is a drinking, are thought to be moſt unfortunat tokens, and to preſage much harme. *Servius Sulpitius* a principall perſon
F of our cittie, hath written a treatiſe of this argument, wherein hee giveth a reaſon why we ſhould not leave or ſhift our trenchers at every courſe or change of diſhes; for in thoſe dais there were no more allowed than there ſat gueſts at the tables, and thoſe were ſerved but once for all. If one chaunce to ſneeſe after repaſt, the order is to call for a diſh of meat and a trencher againe to be ſet upon the bourd: and in caſe he taſt not of ſomewhat afterward, it is thought a moſt fearefull and

*i. The firſt of March.

*Dicis cauſa, i. pro forma.

* As *Valeſius, Lucius, Salvius, Statorius, &c.* which are ſignificant, and import by the very letter ſome happines and proſperity.

*i. Two.

*i. Affricke.

*Which faſhion was afterwards taken up in doing reverence to princes and great perſons.

*Wheras other nations obſerved to turne to the right hand, as appeareth by *Plautus, Quorne veram neſcio*, B. *Si deos ſalutas Dextrorſum cenſeo.*

**Poppyſmus*, in ſetting our lips cloſe together, and drawing the breath inward, as our manner is in playing with a tame Sparrow, or chearing up and making much of an horſe.

*Of the ſpeciall providence of God: *Plinie* ſpeaketh like himſelfe, a Heathenish infidell.

and curſed preſage on his behalfe: like as to ſit at the table and eat nothing at all. *See how ceremonious thoſe men were, and what preciſe ordinances they inſtituted; who were of beleef, that in all our affaires and actions, and at all times, the divine power of God was preſent: and that by theſe meanes they left them pacified for all our ſinnes and vices. Neither is there an end heere: for over and beſides it hath beene marked, that many times all the table is huſht, and ther is not a word heard from one end to the other: but this is noted never to happen but when the gueſts make a juſt even number. But what doth this ſilence preſage? Surely, every one of them *ſhall be in daunger to looſe or empaire his credit, good name, and reputation. Moreover, if a peece of meat chaunced to fall out of the hand downe to the floore, it was taken up and delivered upon the bourd againe, where it paſſed from one to another, and went through the table: but in anie wiſe they were forbidden to blow therupon, for to cleanſe it from the duſt or filth that it caught. Furthermore, they have proceeded thus farre, as to gather preſages from ſuch things as happen juſt at the time whiles one either ſpeaketh or thinketh of the ſame. But of all others this was counted a moſt execrable token, in caſe it chaunced that the Pontifie or high Prieſt, ſitting at the table *pro forma*, and for order ſake at any ſolemne feaſt or ſacrifice, let fall a morcell of meat: but if the ſame were laid upon the bourd againe, and afterwards burnt and ſacrificed to the familiar gods of the houſe *Lares*, it was thought a ſufficient expiatorie ſatisfaction. Semblably, men are of opinion, That if any medicines purgative or others, fortune to be ſet upon a table before they bee given to the patient for to drinke, they will doe no good at all, but looſe their operation. Alſo there is a ſuperſtitious ceremonie in paring the nails of the fingers, during the market daies held at Rome, with this charge, that the partie hold his tongue and bee ſilent all the while, and begin at the forefinger: and this forſooth concerneth the money of many a man. Likewiſe, as great a matter as that, lieth in ſtroking or handling the haire of the head, either upon the ſeventeenth day after the chaunge of the Moone, or the nine and twentieth; for a ſpeciall meanes this is to keepe the haire on, which is given to fall, as alſo to eaſe the head-ach. Moreover, the peaſants in the countrey obſerve this cuſtome in many mannors and farmes of Italie, to forbid their wives and women to ſpin as they walke up and downe abroad in the ſtreet or any common way of paſſage, or to carie their rockes and diſtaves unoizened or bare: for this opinion they have, that in ſo doing they prejudice the hope of all fruits, and the corne eſpecially growing in the field for that yeare. Not long ſince, *M. Servilius Nonianus* (who in his time was a principall cittizen of Rome) to prevent the blearedneſſe of his eyes which he feared, before that either any man elſe foretold him of that diſeaſe, or himſelfe once named it, tooke a little peece of paper, and wrote therein theſe two capitall Greeke letters P and A, which he lapped round & faſt tied with a linnen thred, and ſo wore it hanging at a lace about his necke under his throat. *Mutianus* (who had been thrice Conſull of Rome) obſerved the ſame effect by wearing a flie alive within a little rag of white fine linnen cloth: and both of them did highly commend theſe medicines of theirs, reporting that by thoſe meanes they were free from bleared eyes. Finally, wee read of certaine charms and ſpels againſt ſtormes of haile: againſt ſundrie ſorts of diſeaſes, and namely for any part that is burnt or ſcalded, and verely ſome of them have ben proved by experience to be effectuall. But for mine owne part abaſhed I am and aſhamed to put them down in writing, conſidering how diverſly men are affected in mind. And therfore to conclude this matter, I leave every man to himſelfe to give credit or otherwiſe unto them at his owne pleaſure and diſcretion.

*Fœnæ labor eſt.

*Which answere to our *R.* and *A.*

Chap. iii.

Remedies proceeding from man, for the cure of diſeaſes.

IN my former Treatiſe as touching ſtraunge and woonderfull nations, I ſpake of certaine races of men which were of a monſtrous nature, and caried a venomous regard and looke in their very eyes: beſides many other properties of beaſts, which here to repeat were needleſſe. Howbeit, in this place I thinke it not amiſſe to note, that ſome people there be whoſe bodies bee from top to toe all medicinable and holeſome unto others. As for example, the men of thoſe families which doe terrifie ſerpents, and drive them away with their very preſence: who alſo are of this nature, that they be able to cure and eaſe ſuch as are ſtung alreadie either by touching onely, or elſe by a medicinable ſucking of the place: Of which kind are the Pſylli and Marſi: thoſe alſo in the Iſland *Cyprus, whom they call Ophugenes: and of this race and houſe there came an Embaſſadour

*or *Paros.*

A ſador out of the ſaid Iſland, whoſe name was *Exagon*, who by the commandement of the Con- *Euegon.
ſuls was put into a great tun or pipe wherein were many ſerpents, for to make an experiment and triall of the truth: And in very deed the ſaid ſerpents licked his body in all parts gently with their tongues, as if they had been little dogs, to the great wonder of them who beheld the manner of it. A man ſhall know thoſe of this familie (if any of them remaine at this day) by this ſigne, that they breath a ſtrong and ſtinking ſent from them, eſpecially in the Spring ſeaſon. Now, theſe people beforenamed had not onely a gift to cure folke with their ſpittle, but their very ſweat alſo had a medicinable vertue againſt the ſting of ſerpents. For as touching thoſe men who are born and bred in Tentyrus (an Iſland lying within the river Nilus) ſo terrible they be unto the Crocodiles, that they will not abide ſo much as their voice, but flie from them ſo ſoone as they heare it.
B Moreover, it is knowne for certaine, that all the ſort of theſe people, who have their bodies thus priviledged by that ſecret antipathie in nature betweene them & ſerpents, are able to eaſe thoſe who are ſtung, if they doe but come in place where they be: like as a wound will bee more angry and ſore, if they come neare who at any time before have been hurt by ſting of ſerpent or tooth of mad dog: ſuch alſo carrie about with them in their bodies ſo venomous a qualitie, that their onely preſence is ynough to marre the eggs that a brood-hen ſits upon, and make them all addle; yea, and to drive ewes and other cattaile to caſt their young before the time: ſuch a virulent propertie remaineth ſtill behind in their bodies who have beene once ſtung and bitten, that notwithſtanding they be cured thereof, yet venomous they are now and hurtfull to others, who beforetime were poyſoned themſelves. But the onely way to remedie this inconvenience, is to cauſe
C them to waſh their hands before they enter into the roume where the patients lie, and with the ſame water to be ſprinckle and waſh them who are to be cured. Again, this is to be obſerved, that whoſoever at any time have been pricked with a ſcorpion, ſhall never afterwards be ſtung by hornets, weſpes, or bees. A ſtraunge thing this is no doubt, howbeit, no great wonder to them who know, that a garment or cloth which had been uſed at funerals, will never bee afterwards moth-eaten: and how that ſerpents hardly can bee plucked out of their holes, unleſſe it bee by the left hand.

Chap. IIII.

Of certaine Sorceries: and the properties of a mans ſpittle. Alſo againſt Magicians.

D

THe inventions of *Pithagoras* as touching numbers, beare a great ſtroke in theſe matters, and lightly miſſe not: but principally in this, That the ſaid Philoſopher would give judgement by the vowels contained in the proper name of any perſon, concerning their fortunes: For in caſe the vowels were in number odd, hee pronounced, that if the partie ever proved lame of a lim, loſt an eie, or met with any ſuch like accidents, the ſame ſhould happen upon the right ſide of the bodie: but contrariwiſe, if the number of vowels were even, then theſe infirmities ſhould befall the left ſide. Furthermore, it is commonly ſaid, that if one take a ſtone, dart, or inſtrument of ſhot, wherewith a man hath killed theſe three living creatures, a man, a wild Bore, and a Bear,
E one after another, and that with one ſingle ſtroke to every one of them; and fling the ſame clean over an houſe where there is a woman in hard travell of childbirth, ſo as it light on the other ſide without touching any part thereof, the woman ſhall preſently bee delivered. More reaſon there is that a *light javelin or Pertuiſane ſhould doe this feat, which had been drawne forth of a mans bodie, ſo as it never touched the ground after: for doe but bring this murdering javelin into the place where a woman is in labour, it will forthwith procure her deliverance. *Orpheus* and *Archelaus* doe write much after the ſame manner of arrowes pulled out of mens bodies, namely, That if care be had that they touch not the earth, and then be laid under the bed where man or woman lieth, they will cauſe the parties to be enamoured upon them that beſtowed the ſaid arrowes there. And theſe authors report moreover, That the veniſon of any wild beaſt killed with the ſame weaF pon which was the death of a man before, is ſingular for to cure the falling ſickneſſe.

*Velitaris haſta, which alſo was called Celibaris

As ſome men there be whoſe bodies all throughout be medicinable, ſo there bee others who have certaine parts onely of the ſame vertue, according as I have written alreadie concerning the thumbe of king *Pyrrhus*. In the citie Elis alſo the inhabitants were wont to ſhew as a wonderfull monument the rib of *Pelops*, which they avouched to bee all of Ivorie. And even at this day,

many

many there are who make great ſcruple to ſhave or clip the haire growing in any molle or wert upon the face. As touching the faſting ſpittle eſpecially of man or woman, I have ſhewed alreadie how it is a ſoveraigne preſervative againſt the poyſon of ſerpents. But that is not all: for in many other caſes it is found by daily experience to be of great operation, and to worke effectually. For firſt and formoſt, if we ſee any ſurpriſed with the falling ſickneſſe, we ſpit upon them, and by that meanes we are perſuaded, that we our ſelves avoid the contagion of the ſaid diſeaſe. *Item*, An ordinarie thing it is with us to put by the daunger of witchcraft, by ſpitting in the eyes of a witch: ſo doe we alſo, when we meet with one that limpeth and is lame of the right leg. Likewiſe when we crave pardon of the gods for ſome audacious and preſumptuous praiers that we make, we uſe to ſpit even into our boſomes. Semblably, for to fortifie the operation of any medicines, the manner is to pronounce withall a charm or exorciſme three times over, and to ſpit upon the ground as often; and ſo we doubt not but it will doe the cure and not faile. Alſo when we perceive a fellon or ſuch like uncom ſore a breeding, the firſt thing that wee doe, is to marke it three times with our faſting ſpittle. I will tell you of a ſtrange effect, and whereof it is no hard matter ywis to make the triall. If one man hath hurt another, either by reaching him a blow neare at hand, or by letting flie ſomewhat at him farther off, and repent him when hee hath ſo done; let him preſently ſpit juſt in the middeſt of the palme of that hand which gave the ſtroke, the partie immediatly that was ſmitten, ſhall be eaſed from paine, and take no harme thereby. And verely wee find this to bee ſo, by experiments oftentimes made upon the bodies of fourefooted beaſts: for let them be ſwaied in the backe, or hipped by ſome ſtripe given them with ſtone or cudgill, doe no more then but ſpit into that hand which did the deed, & ſtreightwaies they will go upright again upon all foure. Contrariwiſe, ſome there be, who before they either ſtrike or diſcharge any thing from them againſt another, after the ſame manner firſt ſpit into the ball of their hands, & ſo they make account to doe a greater diſpleaſure, and to hurt more daungerouſly. But this wee may aſſure our ſelves, that there is not a better thing in the world for to kill tettars, ringwormes, and the foule leprie, than to rub and wet them continually with our owne faſting ſpittle: likewiſe to annoint therewith every morning our eies, keepeth them from being bleared. Alſo cankerous ſores are cured with the root of Sowbread, which we call the earth apple, if the ſame be wrought into a ſalve with our faſting ſpittle. Moreover, if a man have a cricke and ach in the nape of his necke, let him take the ſpittle of a man that is faſting, ſome in his right hand, and therewith annoint the ham of his right leg; and the reſt with his left, and doe the like to the left leg: and thereupon he ſhall find eaſe. If an earewig or ſuch like vermine be gotten into the eare, make no more ado but ſpit into the ſame, and it will come forth anone. Among countercharmes & preſervatives againſt forcerie, theſe be reckoned; namely, that a man ſpit upon his owne urine as ſoone as he hath delivered it out of his bodie: likewiſe to ſpit into the ſhoe that ſerveth his right foot, before he put it on in a morning: alſo whenſoever hee goeth over or paſſe by a place where ſometime hee was in daunger, to remember that he ſpit upon it. *Marcion* of Smyrna, who wrote a Treatiſe of the vertues and effects of Simples, reporteth, that the Scolopendres of the ſea will burſt in ſunder if one ſpit upon them: and ſo will hedge toads and other venomous Frogs. *Ophilius* writeth, that ſpittle will doe the like by ſerpents, if one ſpit into their mouths as they gape. As for the learned *Salpe*, ſhe ſaith, that if one perceive any member or part of the bodie be aſleepe and benummed, there is not a better thing to recover the ſence therof, than to ſpit into the boſome, or to touch the upper eyelids with faſting ſpittle. Now, if we beleeve theſe things to be true, we may as well give credit to all that which followeth. Wee ſee it is an ordinarie thing, that if a ſtranger come in place where a babe lieth in the cradle, or looke upon the ſaid infant whiles it is aſleepe, the nurce uſeth to ſpit thrice: although I am not ignorant that there is a religious opinion of this ſillable * Mu, that it is able to defend ſuch young ſucklings; as alſo of the fooliſh puppet *Faſcinus*; both which are of power to put backe any witchcraft from them, and returne the miſcheeſe upon the eyebiting witch. And ſince I am light upon this name, I muſt let you underſtand that this *Faſcinus* is holden to be a god forſooth, the gardian & keeper not of infants onely, but of great captains and brave generals of the field; who hath divine ſervice done unto him at Rome among other gods, and that by the veſtall Nuns: for the manner was to hang this ridiculous puppet under the chariots of noble victorers riding in triumph, not only to defend them by a medicinable power againſt the venome of envious and ſpightfull tongues, but alſo to return all envie upon them, and bid as it were to take it among them. The like vertue there is in the tongue, beſeeching fortune to bee pro-

G H I K L M

* *Mu tueatur*, As *Turnebius* found it in an old copie: And conſidering the fooleries both before & after mentioned, this will ſort well ynough with ſuch ſtuffe: and namely their *Faſcinus* in the old time (which was *turpicula res, quale membrum virile*) hanging about childrens necks to withſtand the miſcheefe that might come by the eye, called in Latine *Faſcinum* alſo: for a witch would not willingly ſettle her eye long upon ſuch a beaſtly and filthie obiect.

A propitious and favourable unto them: Fortune (I ſay) who ordinarily commeth after to whip and
punish them, as the ſcourge and tormentreſſe of glorie and honour. Over and beſides, the tooth
of a man, eſpecially when he is mad, is reckoned to be as daungerous and pernicious a biting as
any other. The excrement found in mans ears, called ear-wax, is thought in this caſe to be ſove-
raigne: and let no man marveile thereof, conſidering how it will heale the ſting of ſcorpions and
ſerpents alſo, if it be applied to the place preſently: but it is the better and more effectuall, if it
be taken out of the Patients owne ears, who is thus wounded: and in that ſort it healeth alſo the
whitflaws and impoſtumations that breed about the naile roots. Moreover, take a mans or wo-
mans tooth, and ſtampe it into powder, it is thought good for the ſting of a ſerpent. The haire of
young boy-children which is firſt clipped off, is held to be a ſingular remedie for to aſſuage the
B painfull fits of the gout, if the ſame be tied faſt about the foot that is grieved: and generally their
haire, ſo long as they be under fourteen yeers of age, eaſeth the ſaid anguiſh, if it be applied unto
the place. Likewiſe, the haire of a mans head cureth the biting of a mad dog, if it be laid to the
place with vinegre: it healeth alſo the wounds in the head, applied with oile or wine. But if it were
plucked from his head whiles he hangeth upon the gallows, then is it ſoveraigne for the quartan
ague: But we may chuſe whether we will beleeve it or no. Certainly the haire of the head burnt
to aſhes, is knowne to be verie good for a cancerous ulcer. If a woman take the firſt tooth that a
young child caſt, ſet it in a bracelet, and ſo weare it continually about her wreſt, it will preſerve her
from the pains and grievances of her matrice & naturall parts. Tie the great toe and that which
is next unto it togither, you ſhall ſee how it will allay any riſings and tumours in the ſhare. Bind
C gently the two middle fingers of the right hand, with a linnen thread, marke of what force this
remedie is to repreſſe the rheume falling into the eies, and how it will keepe them from beeing
bleared. If all be true that is commonly ſaid, the ſtone that one hath voided and thruſt out of the
bodie, eaſeth all others that be pained with the ſtone, if the ſame be kept faſt tied to the ſhare: al-
ſo it doth mitigat the griefe of the liver; and procureth ſpeedie deliverance to women in travaile
with child. *Gramus* affirmed moreover, that in all theſe caſes it would doe the better, if one were
cut for it, and that it were taken forth of the bladder by way of inciſion. If a woman be neare her
time and looks every day to fall to labour and crie out, let the man come by whome ſhe is with
child, and after he hath ungirt himſelfe, gird her about the middle with his owne girdle, and un-
looſe the ſame againe, ſaying withall this charme, *I tied the knot, and I will undoe it againe*, and
D therewith goe his waies, ſhe ſhall ſoone after fall to her buſineſſe and have more ſpeedie delive-
rance. *Orpheus* and *Archelaus* both, doe affirme, That if the ſquinancie be annointed with man
or womans bloud (it skilleth not out of what veine or part of the bodie it iſſued) it is an excellent
remedie for that diſeaſe. The like effect it hath, if their mouths bee rubbed with the ſaid bloud,
who being overtaken with the epilepſie, are falne downe, for immediatly thereupon they will riſe
and ſtand upon their feet. Some write, That if the great toes be pricked untill they bleed againe,
the drops that come forth worke the like effect in the falling ſickneſſe, ſo that the face of the Pa-
tient be ſprinkled or beſmeared therewith: or if a maiden touch the parties face that lieth in a fit
of the ſaid diſeaſe, with her bare thumbe or great toe, hee ſhall come againe to himſelfe and re-
cover. By which experiment, Phyſicians going by conjecture, are of opinion, That ſuch perſons
E ſubject to that diſeaſe, ſhould feed of the fleſh of * ſuch beaſts as never were with young. *Æſchi-*
nes a Phyſician of Athens, was woont to cure ſquinſies, the inflammations of the amygdals, the
infirmities of the uvula, and all cancerous ſores, with the aſhes of a man or womans body burnt:
and this medicine he called Botryon,

* *Virgines carnes.*

Many maladies there be, that go away the firſt time that either a man hath carnall knowledge
of a woman, or that a maiden ſeeth her monethly ſickneſſe: but if they end not at ſuch a time,
commonly they proove chronicke diſeaſes and contiue a long time, and eſpecially the falling
ſickneſſe. It is ſaid moreover, That the companie of a woman eaſeth them very much who are
ſtung with a ſcorpion: but women in the ſame caſe catch harme by that meanes. Some ſay alſo,
that if the eies bee dipped three times in that water wherein a man or woman hath waſhed their
F feet, they ſhall be troubled neither with bleerednesſe nor any other infirmitie. And others there
be who affirme, that the wens called the Kings evill, the ſwelling kernels alſo behind the ears, and
the ſquinancie, are cured with touching the hands of them that have died a violent and untimely
death. Some ſtand not ſo much upon that point, but ſay, That the backe of the hand of any one
that is dead (it skilleth not how nor by what means) if it touch the grieved part, will worke the like

effect, ſo that the dead partie and the Patient be both of one ſex. As for the toothach, it is a com- G
mon ſpeech, That if one bite off a peece of ſome tree that hath been blaſted, or ſmitten with
lightning, provided alwaies that he hold his hands behind him at his backe in ſo doing, the ſaid
morſell or peece of wood will take away the toothach if it be laid unto the tooth. Some there be
who give direction to take the perfume of a mans tooth burning in the fire, for to eaſe the tooth-
ach of a man; and ſemblably of a womans tooth to helpe women in the ſame caſe. Others you
ſhall have, that preſcribe to draw one of the eye-teeth, called in Latin Canini, out of the head of
man or woman lying dead and not yet enterred, and to weare the ſame againſt the toothach. It is
a common ſpeech, That the earth found in or about a man or womans ſcull, is a ſingular depila-
torie, and fetcheth away the haire of the eyebrows. As for the graſſe or weed that groweth there-
in (if any ſuch may be found) it cauſeth the teeth to fall out of the head with chewing only. As alſo H
that no ulcer will ſpread farther but keep at a ſtay, if there be a circle drawn about it with the bone
of a man or womans bodie. As touching the cure of a tertian ague, ſome there be who lade up
water out of three pits, as much out of one as another, and mingle all togither; which done, they
put the ſaid water into a new earthen pot that never was occupied before, and begin to the Pati-
ent out of it, giving the reſt unto him or her for to drink, when the fitt commeth. But for the quar-
tan ague, they get me a broken fragment of a wooden pin which held the ſides and croſſe-peece
of a paire of gallows togither, wrap it within a locke of wooll, and ſo hang it about the Patient:
or elſe they take a peece of the halter or rope from the gallows, and uſe it in like manner for the
foreſaid purpoſe: but wot ye what? when the Patient is by this means rid of the fever, the ſaid par-
cell of wood or cord they uſe to burie or beſtow cloſe in ſome hole within the ground, where the I
Sun may never ſhine of it, and then the acceſſe will returne no more. See the toies and vanities
of theſe Magicians! and yet theſe be not all: for they run on ſtill and ſay, that if one take a whet-
ſtone which hath ſerved a long time to whet knives and other edge-tools on, and lay the ſame un-
der the bouſter or pillow where one lieth that is readie to faint and give up the ghoſt upon ſome
indirect means, by ſorcerie, witchcraft, or poiſoning, (but this muſt bee done without the know-
ledge of the ſaid partie) you ſhall from the verie mouth of the Patient heare, what poiſon was gi-
ven, in what place, and at what time; but who it was that gave it, hee or ſhee ſhall not be able to
name. Moreover, this is knowne for a truth, That if one be ſtrucken ſpeechleſſe with lightning,
and then the bodie be bent and turned toward the wounded place, the partie ſhall recover pre-
ſently and ſpeake againe. Some there be, who to drive backe and keepe downe the biles and bot- K
ches that riſe in the ſhare, take the thread or yarne out of the weavers loome which ſerve for the
ſelvedge or liſt, making ſeven or nine knots, and in the knitting of everie one of them name
ſome widow or other, and then tie it faſt about the grieved place. Alſo for to aſſuage the paine
of any wound, they give order, that the wounded partie take a naile or ſome other thing that one
hath troden under foot, and to weare the ſame tied about the necke, arme, or other part of the
bodie. For to be rid of werts, ſome chuſe a time to plucke them up by the roots, when the moon
is twentie daies old at leaſt, and then lay themſelves along upon their backes in ſome ordinarie
high way, looking fully upon the moone, and ſtretching their armes backeward as far as they can
beyond their heads, and looke what they can catch hold of with their hands, therewith they rub
the place. If one cut and pare an agnell or corne in any part of the bodie, obſerving a time when L
a ſtarre ſeemeth to ſhoot or fall, they ſay, it will quickly weare away and be healed for ever. They
would beare us in hand, that if a man poure vinegre upon the hooks and hindges of doores, and
make a liniment with the durt that commeth of the ruſt thereof, and therewith annoint the fore-
head, it will aſſuage the head-ach. They promiſe alſo to doe as much with a withie or halter that
a man is hanged withall upon a gibbet, in caſe it be done about the temples of the head in man-
ner of a frontall. Moreover, if any fiſh-bone ſticke in the throat and will not remoove, it ſhall in-
continently goe downe, if the partie readie thus to be choked withall, put his feet into cold wa-
ter: but if ſome peece of any other bones be readie to choke one, make no more adoe, but take
ſome other little ſpils of the ſaid bone and lay them upon the head, you ſhall ſee it paſſe away and
doe no harme. If a peece of bread have gone wrong or lie in the way readie to ſtop the breath, M
take the crums of the ſame loafe & put them into both the ears, you ſhall ſee it will be ſoon gone
and do no farther harme. Furthermore, the Greeks (who were given much to make mony of eve-
rie thing, and namely of their publicke places of bodily exerciſe) made great account of certaine
excrements that came from mens bodies, as ſingular remedies for many diſeaſes: for the filth

that

A that was ſcraped and rubbed from the bodies of wreſtlers, &c. ſerved to mollifie, to heale, reſolve, and incarnat; a medicine conſiſting of ſweat & oile tempered togither: with it they uſed to cure the inflammations, contractions, diſtortions, and riſings of the matrice, by application outwardly: therewith they would draw downe the monthly fleurs of women; lenifie the intemperat heat; and diſſolve piles and ſwelling bigs in the ſeat or fundement: they uſe the ſame alſo for to aſſuage the griefe of the ſinews, to rectifie diſlocations and ſet the bones in joynt, and to diſcuſſe the nodoſities of the joynts. Howbeit, the ſcrapings that come of ſweating in banes and hote-houſes, be counted of greater validitie in all theſe infirmities, and therefore no marveile if they enter into the compoſition of maturative emplaſtres, and which bring an impoſtume to ſuppuration.
As for the foreſaid medicines which ſtood upon ſweat, oile wherewith wreſtlers were annointed,
B and ſome urine mingled among, they be good only to mollifie the nodoſities of the joynts: for as they heat and reſolve more effectually, ſo in the other reſpects nothing ſo forcible they are as thoſe that be gathered out of ſtouves and bains. Verely a man would not beleeve to what ſhameleſſe and impudent curioſitie ſome authors are growne unto (and even thoſe of all others who be moſt renowmed) who bath not with open mouth to commend unto us that, for a ſingular remedie againſt the pricke of ſcorpions, which I am not willing to name, even the filthie ſperme that paſſeth from a man by his privities. Neither could they ſtay there, but to cauſe barraine women for to teeme and beare children, they have found out a proper peſſarie to bee put up into their ſecret parts, made forſooth of the ordure that commeth away from infants ſo ſoon as they be out of their mothers wombe: and this medicine they have a prettie name for, and call it Meconion.
C Moreover, the Greeks have gone ſo neare, that they have ſcraped the very filth from the walls of their publicke halls and places of wreſtling, and ſuch like exerciſes; and the ſame (ſay they) hath a ſpeciall excalfactorie vertue, whereby it diſcuſſeth and reſolveth the biles and impoſtumes called Pani; and ſerveth as a ſoveraigne liniment to heale the ulcers in the bodies of children and old folke, yea and to skin any place that is galled, raw, & bliſtred with burning. Lo what remedies have ben found in the bodie of man! And ſurely ſince I have taken the pains to put them down, I may not omit thoſe voluntarie medicines which depend upon his mind, & proceed from his will and underſtanding. In the firſt place, you ſhall have ſome that will faſt and forbeare all kinds of meat; others drinke not at all; one while they abſtaine from wine onely, another while from all fleſh meats: and you ſhall ſee divers men never come unto bath or baine, everie one according
D as their ſickneſſe doth require. And this kind of abſtinence or regiment of themſelves, they hold to be the readieſt and ſureſt means to recover their health. In the ranke of theſe remedies, are reckoned bodily exerciſe, ſtreining of the voice, unction, ſcratching, and rubbing, as need and occaſion requireth: for hard and vehement friction doth conſtipat and bind the bodie: contrariwiſe, gentle and ſoft frictions doe mollifie and open the pores: and, as much rubbing taketh downe the bodie and cauſeth leanneſſe, ſo that which is moderat ſetteth it up and encreaſeth fatneſſe: but nothing is there more holeſome than walking and geſtation; which is an exerciſe performed many waies. If the ſtomacke be weake, and the legs feeble, riding on horſebacke is an excellent exerciſe: for the phthyſicke or conſumption, nothing ſo good as to ſaile or be rowed upon the * water: but in caſe there be a long diſeaſe hanging upon a man, what better thing in the
E world than to change the aire, and remove from place to place? In like manner to procure ſleepe, by lying in ſome pretie bed that may be rocked too & fro, is oftentimes good for a mans health: as alſo to vomit now and then, but in no wiſe to uſe it ordinarily. Lying in bed upon the backe, is commended for the infirmities of the eies; but upon the bellie, for the cough. To lie upon the ſides ſhifting from one to the other, is held to be ſingular againſt rheums and catarrhes. *Ariſtotle* and *Fabianus* doe ſay, That we be given to dreame at the Spring and Fall, more than in the other ſeaſons of the yeere: alſo, moſt when we lie with our face upward, but never groveling. And *Theophraſtus* affirmeth, That ſleeping upon the right ſide, helpeth forward the concoction of meat in the ſtomacke: whereas they that lie upon their backe ſhall not have ſo quicke digeſtion.
The manner of bathing alſo and uſing the baine and hote-houſe (which is one of the chiefe and
F principall means of our health) is in a mans power to order as hee liſt himſelfe: like as hee may chuſe what kind of friction hee will in the ſtouph or hote-houſe, either to be rubbed with linnen cloths, or well curried and ſcraped with kombs. *Item*, it is knowne to bee verie good and holeſome, to waſh ones head with hote water, before hee enter into the baine or hote-houſe; and after that hee is out of it, to doe the like with cold water: as alſo to take a draught of cold water

* Specially upon the ſea.

immediatly before meat, and to do as much between meals: likewiſe to drinke the ſame to bedward, yea and other-whiles in the verie night, ſo as we ſleepe both before and after: where, by the way this would be noted, That no living creature elſe but man alone, delighteth to drinke any drink hot; know then hereby, that ſuch kind of drinks be not naturall. Finally, to waſh the mouth with wine before one goeth to bed, for a ſweet breath: likewiſe ſo ſoone as he is up betimes, with cold water againſt the toothach, ſo as he doe it three or five times togither, or at leaſt-wiſe obſerving ſuch an odd number: as alſo to bath the eies in a morning with oxycrat, that is to ſay, with vinegre and water mingled togither, to preſerve them for beeing bleared, are ſinguſar and approoved experiments. G

Chap. v. H

Obſervations as touching Diet, and the manner of our feeding, for the regiment of health.

LIke to the former rules is this alſo, as touching our Diet, That it be not too preciſe, but ſo as we may feed indifferently of all viands, & acquaint our bodies with varietie of meats; which is obſerved to be the beſt way to maintaine our health: and in verie truth, *Hippocrates* ſaith, That to eat but one meale a day, that is to ſay, to forbeare dinners, is a diet that will dry up a mans bodie within, and bring them ſoon to age and decay. But this aphoriſme of his he pronounced as a Phyſician to reclaime us from that hungrie and ſparing diet, and not as a patron and maintainer of full feeding and gourmandiſe: for I aſſure you, a temperat and moderat uſe of our meats, is the holſomeſt thing that is for our bodily health. But *L. Lucullus* was ſo ſtrict herein, that he ſuffered himſelfe to be ordered and over-ruled by his own ſervant, who would not let him eat but as he thought good: in ſuch ſort, that it was no ſmall diſgrace unto him in his latter daies thus to make his man his maſter, and to bee governed by him rather than by his * own ſelfe: for was it not (thinke you) an approbrious ond ſhamefull ſight, to ſee a * ſlave and no better, to put his lords hand from a diſh of meat, being an aged gentleman as hee was, and who in times paſt had rode in triumph: to gage him thus (I ſay) and keepe him ſhort, though he were ſet among great States at a roiall feaſt within the capitoll of Rome? I

* For every man is to be his owne Phyſician: whereupõ might riſe this proverbe, *A foole, or a Phyſician.*

* Thought to be *Calliſthenes* his Phyſician: for in thoſe daies Phyſicians were reckoned but ſervants to ſuch perſons as *Lucullus* was.

Chap vi. K

Of Sneeſing. The uſe of Venerie: and other means which concerne mans health.

SNeeſing diſchargeth the heavineſſe of the head, and eaſeth the poſe or rheume that ſtuffeth the noſe: and it is commonly ſaid, That if one lay his mouth to the noſthrils of a mouſe or rat and touch the ſame, it will doe as much. To ſneeze alſo, is a readie way to bee rid of the yex or hicquet. And *Varro* giveth counſell, to ſcrape a braunch of a * Date tree with one hand after another by turnes, for to ſtay the ſaid hicquet. But moſt Phyſicians give direction in this caſe, to ſhift a ring from the left hand to the longeſt finger of the right; or to plunge both hands into verie hot water. *Theophraſtus* ſaith, that old men doe ſneeze with more paine and difficultie than others.

As touching carnall knowledge of man and woman, *Democritus* utterly condemned it: and why ſo? Becauſe (quoth he) in that act, one man goeth * out of another. And to ſay a truth, the leſſe one uſeth it, the better it is for bodie and mind both: and yet our profeſſed wreſtlers, runners, and ſuch gamſters at feats of activitie, when they feele themſelves heavie or dull, revive and recover their lively ſpirits again by keeping companie with women. Alſo this exerciſe clenſeth the breaſt and helpeth the voice, which beeing ſometime before cleare and neat, was now become hoarſe and ruſtie. Moreover, the temperat ſports of *Venus*, eaſe the paine of the reins and loins, mundifie and quicken the eye-ſight, and be ſingular good for ſuch as bee troubled in mind and given overmuch to melancholy. L

Moreover, it is held for witchcraft, to ſit by women in travaile, or neare unto a Patient who hath a medicine either given inwardly or applied unto him, * with hand in hand, croſſe-fingred one between another: The experience whereof was well ſeene (by report) when ladie * *Alcmena* was in labour to be delivered of *Hercules*. And the worſe is this peece of ſorcerie, in caſe the partie hold the hands thus joyned a-croſſe one finger within another about one or both knees. Alſo M

* *Palmã alterna manu ſcalpere*: unleſſe hee meaneth [to ſcratch the palm or inſide of the hand, &c.] which anſwereth ſomewhat to the remedies next following.

* *Homo alius exiliret ex homine*: which *Dalecampius* expõndeth thus, For that a man in that action, goeth beſide himſelfe.

* For it holdeth women in pain ſtill, & hindreth the operation of Phyſicke.

* There was an old witch that by this means kept her in a long and tedious travaile.

A to sit crosse-legged, with the ham of one leg riding aloft upon the knee of the other, and that by turns shifting from knee to knee. And in verie truth, our auncestors time out of mind, have expressely forbidden in all counsels of State, held by princes, potentats, and Generals of the field, to sit hand in hand or crosse-legged: for an opinion they have, That this manner of gesture hindreth the proceeding and issue of any act in hand or consulted upon. They gave out likewise a streight prohibition, That no person present at any solemnitie of sacrifices or vowes making should sit or stand crosse-legged or hand in hand in manner aforesaid.

As for veiling bonnet before great rulers and magistrats, or within their sight, *Varro* saith, it was a fashion at first not commaunded for any reverence or honour therby to be done unto governours, but for health sake; and namely, that mens heads might be more firme and hardie, by
B that ordinarie use and custome of being bare.

When a mote or any thing els is falne into one eye, it is good to shut the other hard. If there be water gotten into the right eare, the manner is to jumpe and hop with the left leg, bending and enclining the head toward the right shoulder: semblably, if the like happen to the left eare, to doe the contrarie. If one be falne into a fit of coughing, the way to stay it is to let his next fellow spit upon his forehead. If the uvula be falne, it will up againe, if the Patient suffer another to bite the haire in the crowne of his head, and so to pull him up plumbe from the ground. Hath the necke a cricke or a paine lying behind, what better remedie than to rub the hams? Be the hams pained? doe the like by the nape of the necke. Say the crampe take either feet or leggs plucking and stretching the sinews when one is in bed, the next way to be used, is to set the feet upon the
C floore or the ground where the bed standeth: or put case the crampe take the left side, then be sure with the right hand to catch hold of the great toe of the left foot: and contrariwise, if the crampe come to the right leg, doe the like by the right foot. If the bodie fall a shaking and quivering for cold, or if one bleed excessively at the nosthrils, it is passing good to bind streight and hard the extreame parts, to wit, hands and leggs, yea and the ears also. It falleth out oftentimes, that one cannot lye drie nor hold his water, but it commeth from him ever and anon; what is then to be done? mary tie the foreskin of his yard with a linnen thread or a papyr rush, & withall, bind his thighs about in the middle. If the mouth of the stomacke be readie to turne, and will neither receive nor hold any thing, it is good to presse hard and straine the feet togither, or els to thrust both hands into hot water.

D To come now unto our speech and exercise of the tongue: in many cases and for divers causes, it is holesome to speake but little. I have heard say, that *Mecænas Messius* enjoyned himselfe three yeeres silence, and during that time never spake word, for that in a fit of a convulsion or crampe, he had before time cast up bloud. In case any thing be readie to fall or rush violently against us, and that wee be in daunger of some stroke, say that wee be climbing up hill, or turned downe backeward, or lying along, there is not the like means againe to preserve our bodies, as to hold our wind: and this invention wee had from a bruit and dumbe beast, according as I have shewed before.

Moreover it is said, that to sticke downe a spike or yron naile in that verie place where a man or womans head lay during the fit of the falling sickenesse, at the verie first time that he or she fell,
E secureth the partie that so doth, for ever beeing troubled with that disease. Also it is holden for a singular thing to mitigat the intollerable torments of the reins, loins, and bladder, to pisse with the bodie bending forward and groveling in the bathing tubs within the bains. As for greene wounds, it is wonderfull how soone they will be healed, in case they be bound up and tied with a * *Hercules* knot: And verely it is thought, that to knit our girdles which we weare about us every day with such a knot, hath a great vertue in it, by reason that *Hercules* first devised the same.

* Wherein no ends are to be seene, they are so close couched, & therefore hardly to be unlooſed.

Demetrius, in a treatise that he compiled as touching the number of foure, affirmeth that it is of great efficacie; and he alledgeth reasons why it is not good to prescribe in any medicine to be drunke, the quantitie of foure sextars or foure cyaths. To rub the ears behind, is supposed to be verie good for them that are given to he bleare-eyed: like as to rub the forehead, for weeping
F or watering eyes.

Concerning the signs of life and death which may be found in man, this is one, That so long as the Patients eye is so cleare that a man may see himselfe in the apple of it, wee are not to despaire of life.

As for the Vrine of mankind, divers authors have treated of it; who as I find, have not onely

ſet downe their reaſons in nature as touching the vertue thereof, but alſo have been verie ceremonious and ſuperſtitious in handling that argument; yea and they have written diſtinctly of the ſeverall kinds of urine digeſted into certaine principall heads. And among other things, I remember, that they ſet downe the urine of * men that are unable for generation, to be ſingular good by way of injection, to make women fruitfull. But to ſpeake of ſuch remedies as we may be bold to name with honeſtie: the urine of young children who be not yet undergrowne nor fourteene yeers of age, is good againſt the venomous humour of thoſe Aſpides or Adders which the Greekes name * Ptyades, for that they ſpit their poiſon upon the eyes and faces of men and women. Alſo, the ſame is held to be ſingular for the pearle, the cataract, the filmes, the pin and web in the eyes; like as for the eye-lids alſo, and the accidents happening unto them. Being incorporat with the floure of Ervile, it is good for ſun-burnings: ſodden alſo with bolled leeks to the conſumption of the one halfe in a new earthen pot which was never occupied, it is excellent to mundifie the eares that run with matter, or that have any worms or vermin within them: and verely a ſtouph made with the vapour of this decoction, bringeth downe the deſired ſickneſſe of women. Dame *Salpe* ordaineth to foment the eies with the ſaid decoction, for to fortifie the ſight, and to ſtrengthen them that they fall not out of the head: ſhee appointeth to make a liniment with it and the white of an egg, but principally if it be of an oſtrich, and therewith to annoint the skin that hath been tanned and burnt in the Sun, for the ſpace of two houres togither: with it a man may waſh away any blots or blurrs of inke. Mans urine is much commended for the gout in the feet, as we may ſee by Fullers, who never be goutie, becauſe ordinarily their feet are in mens urine. Stale chamber-lie or urine long kept & incorporat togither with the aſhes of oyſter ſhels, cureth the red-gombe in young infants, and generally all running ulcers: The ſame ſo prepared, ſerveth in a liniment for eating cankers, burns, and ſcalds, the ſwelling piles, the chaps and rifts in the ſeat and feet, alſo for the ſting of ſerpents. The moſt expert and skilfull midwives have pronounced all with one reſolution, That for to kill an itch in any part of the bodie, to heale a ſcald head, to ſcoure away dandruffe and ſcurfe in head or beard, and to cure the corroding ulcers in any place, but in the privie members eſpecially, there is not a liquor more effectuall than urine, with a little ſal-nitre put thereto. But ſurely, everie mans owne water (if I may for reverence of manhood ſo ſay) is ſimply beſt; and namely, if the Patient that is bitten with a dog doe ſtraightwaies bath the place therewith: or in caſe there be any pricke of urchin, hedgehog, or ſuch like ſpill ſticking in the fleſh, to apply the ſame thereto in ſpunges or wooll, and ſo let it lye on. But ſay it was a mad dog that bit the Patient, or that he be ſtung with a ſerpent, it is good to temper it with aſhes and lay it unto the ſore. For as touching the vertue thereof againſt Scolopendres, it is wonderfull what is reported, namely, That whoſoever be hurt by them, if they doe wet the crowne of their heads but with one drop of their owne urine, it will preſently cure the ſame, ſo as they ſhall feele no more paine nor harme thereby. Over and beſides, by the ſpeculation of our urine, we are able to give judgement and pronounce of health and ſickneſſe; for if the firſt water made in a morning be white and cleare, and the next after it higher coloured and enclining to a deepe yellow, the former ſheweth that concoction was then begun, and the ſecond is a ſigne that digeſtion is now perfect. A red urine is naught, but the blacke is worſt of all: likewiſe if it be full of bubbles and froth aloft; and be withall of a groſſe and thicke ſubſiſtence, the ſame is but a bad water. If the Hypoſtaſis or Sediment which ſettleth heavie to the bottom, be white, it ſignifieth that there is ſome paine and greevance like to enſue about the joynts or principall parts within the bodie. Doth an urine looke greeniſh? it betokeneth ſome obſtruction or diſeaſe alreadie in the noble bowels and inwards: Is it of a pale hew? it ſaith that choller aboundeth in that bodie: If it looke red, the bloud be ſure is predominant and diſtempered. The urine is not to be liked but preſageth daunger, wherein there appeare certaine contents like brans and blackiſh clouds. Alſo a white, thin, and wateriſh urine is never good: but in caſe it be thick and of a ſtinking ſmell withall, it is a deadly ſigne, and there is no way but one with the Patient. As for children, if their water be thin and wateriſh, it is but ordinarie and naturall.

The magicians expreſſely forbid in making water, to lay bare the nakedneſſe of that part againſt Sun and Moone, or to piſſe upon the ſhadow of any perſon. And therefore *Heſiodus* giveth a precept, to make water againſt a wall, or ſomething ſtanding full before us, for feare leaſt our nakedneſſe being diſcovered, might offend ſome God or Angell. To conclude, *Hoſthanes* doth upon his warrant aſſure us, That whoſoever droppeth ſome of his owne urine everie morning

* *Spadonum.*

* Ἀπὸ τῶ πτύειν, ἀ ſpuendo, *i.* of ſpitting.

G H I K L M

A morning upon his feet, hee ſhall be ſecured againſt all charmes, ſorceries, and deadly poyſons whatſoever.

Chap. vii.

The remedies that womens bodies doe miniſter.

THe medicines which are ſaid to proceed from the bodies of women be ſuch, and the operations ſo miraculous, that they come nearer to the nature of monſtrous wonders than true reports of naturall works: to ſay nothing of much miſcheefe and many wicked parts committed by the meanes of their untimely births and infants ſtill borne, which have been diſmembred & cut in peeces for ſome abominable practiſes: to let paſſe the ſtrange expiations wrought by their monthly tearmes, and a thouſand more deviſes which have been delivered & ſet abroad not onely by midwives, but alſo by ſecret harlots that have ſlipt their conceptions, and beene delivered in corners. But to ſpeake of the foreſaid remedies which are in ure, & commonly known. The perfume that the haires of a womans head make whiles they burne, chaſeth away ſerpents. The ſmell thereof alſo raiſeth and reviveth women, who in a fit of the mother lie ſpeechleſſe and breathleſſe. The aſhes verely of the ſaid haires burnt in ſome earthen pan or fiſh ſhell, being applied alone or with litharge of ſilver, is a ſingular medicine for the aſperitie of the eyes, and the itch. *Item*, It taketh werts away, and cureth the red gum and ſores that infants bee ſubject unto, if it be uſed with honey. The ſame aſhes mingled with Honey and Frankincenſe, healeth wounds in the head, and doth incarnat or fill up with good fleſh hollow ulcers whatſoever they bee. And incorporat with ſwines lard, it is good for the broad biles called Pani, for the gout, and S. *Anthonies* fire: it ſtaieth alſo any bleeding preſently, and ſtoppeth the running of ringwormes and ſuch like.

Touching womens milke, it is holden by a generall accord, of all other to be ſweeteſt and moſt delicat: whereupon it is preſcribed by Phyſicians unto thoſe that have lien of a long and languiſhing fever; as alſo to ſuch as be troubled with a flux occaſioned by a feeble ſtomack: but in theſe caſes, that milke is reputed moſt wholeſome which a nource giveth that hath newly weaned her child: beſides, when the appetite of women is given to an inordinat longing after ſtrange things, in agues alſo, in gnawings and frettings of the ſtomacke, it is found by experience to be moſt effectuall. Likewiſe, beeing incorporat with Frankincenſe, it is ſingular good for the impoſtumes breeding in womens breaſts. If the eyes be bloudſhotten upon any ſtripe, if they bee in paine, or troubled with a violent rheume falling into them, let a nource milke it in them, they ſhall find very much eaſe thereby: howbeit for the accidents abovenamed, it is held to be more ſoveraign, in caſe it be applied to the place together with honey and the juice of the daffodill, or els with the pouder of frankincenſe: where by the way this would be obſerved, that for what uſe ſoever milke is emploied, that is ordinarily of more force which a woman giveth that bare a man child: but if ſhee was brought to bed of two twins, both boies, then it is beſt and moſt effectuall; provided alwaies, that the mother her ſelfe doe forbeare drinking of wine, and eat no meats or ſauces that be ſharpe. Moreover, this is knowne for certaine, that if womans milke be incorporat with the liquid white of an egge, and ſo applied to the forehead with wooll wet in the ſaid liquour, it ſtaieth the flux of humors into the eyes. Moreover, a ſoveraigne remedie is milke againſt the venomous ſlime or ſpittle of toads, in caſe they piſſe or ſpurt it into our eyes. Alſo if they have bitten one, there is not a better thing either to bee drunke or dropped upon the ſore, than breſt milke. It is a common ſaying, That whoſoever can meet at one time together with the milke of mother and daughter both, ſhall never need to feare all their life long any infirmities of the eyes, ſo they bee annointed or bathed therwith. Semblably, womens milke is ſingular for to cure the accidents befalling to the eares, if it be dropped in with a little* Opium put thereto: but if ſo be the eares are pained by reaſon of ſome ſtripe that they have received, the ſaid milke would have ſome Gooſe greaſe mixed with it, and ſo be inſtilled warme. And ſay that they have a ſtrong and ſtinking ſmell with them, as commonly it falleth out in all long diſeaſes, ther is nothing better than to put wooll into them, which is ſoaked in breſt milke and honey together. If it happen that the eyes looke ſtill yellow after the jaundiſe, it is good to drop milke into them with the juice of the wild Cowcumber. This peculiar vertue it hath over and beſides thoſe abovenamed, if it be taken in drinke, to helpe thoſe that have been poyſoned with the ſea-Hare, the worme Bupreſtis, and as *Ariſtotle* faith

* *Modice admiſto opio.*

faith with the deadly Dwale called Dorycnion. In that manner alſo it cureth thoſe whoſe braines G
be troubled and intoxicat with drinking Henbane. Phyſicians likewiſe have preſcribed to make a liniment with milke and Hemlocke for to be applied unto the gout. And ſome there bee who uſe it in that caſe, together with Oeſype, that is to ſay, the ſweat or fattineſſe of unwaſhed wooll, and Gooſe greeaſe: in which manner it ſerveth in a peſſarie to bee put up into the naturall parts of women, for to aſſuage the paine of the matrice. To drinke breaſt milke is a good meane to ſtop a laske, as *Rabirius* writeth, and yet the ſame doth provoke the monthly courſe of womens fleurs. What is to be ſaid now of a womans milke who hath borne a maid child? ſurely it is better than the other in theſe caſes onely, to wit, in ſcouring the skin of the face, and taking away the pimples, ſpots, and freckles which be therin. But I muſt not forget, that any breaſt milke whatſoever, cureth the maladies incident to the lights: and if there bee tempered therewith the urine of a H
young lad not full fourteene yeares old, and Atticke honey, ſo there bee of each one ſpoonefull, I find it to be an excellent remedie for to rid away the ringing and thumping within the ears. And to conclude, it is a generall ſpeech, That if dogs do lap and taſt the milke of a woman which hath borne a man child, they will never run mad.

As touching the faſting ſpittle of a woman, it is judged to bee a proper medicine for bloud-ſhotten eyes: alſo for the rheume that hath taken a courſe thither, if ſo be the corners of the eyes be ever and anone bathed and wet therewith when they bee hot and enflamed: but more effectually will this remedie worke, in caſe the woman forbeare all meat and wine the day before. I read moreover in ſome Authors, That if the head bee bound up with a womans haire-lace or fillet, it eaſeth the paine thereof. And thus much in ſome good ſort as touching the medicines proceeding from women. As for the reſt that are written and reported, they exceed all reaſon, and there I
is no end of them.

For firſt and formoſt it is ſaid, that if a woman whiles her monthly ſickneſſe is upon her, bee ſet into the wind abroad with her bellie naked, ſhe will skare away haileſtormes, whirlewinds, and lightenings; yea, and avert any violence of the weather whatſoever. And at ſea verely, any woman ſtanding openly againſt the weather bare, although ſhe have not her fleurs, is ynough to ſecure the ſailers and paſſengers from all tempeſts. As for the very monthly flux it ſelfe of women, (a thing in other reſpects and at all times, as I have ſhewed before, of a monſtrous nature) there bee writers who tell and preſage wonders thereof, ſuch as bee horrible, abhominable, and indeed not to be ſpoken: and yet ſome of thoſe things I hold it no ſhame to deliver in writing, namely, K
If it fall out juſt in the eclipſe of Sunne or Moone, that a woman hath her ſickneſſe come downe, the ſame is of a peſtilent qualitie, and apt to breed diſeaſes incurable. Likewiſe, if haply the time of the chaunge, when the Moone is in conjunction with the Sunne, and thoſe things concurre together, the man who meddleth with her during that time, ſhall not avoid his bane, but it will bring upon him ſome peſtilent maladie, remedileſſe. Moreover, the venome thereof is ſo ſtrong at that time eſpecially more than at any other, that the preſence or breath only of a woman then, will infect and ſtaine any purple cloth. And yet bad ynough it is at all times: for whenſoever they are in their fleurs, it skils not in what quarter of the Moone, if they goe about any field of corne with their nakedneſſe uncovered, yee ſhall ſee the canker wormes, caterpillers, beetles, and all ſuch wormes and hurtfull vermine, to fall from the corne as they paſſe along. This invention by the L
ſaying of *Scepſius* and *Metrodorus*, came from the Cappadocians, who being infeſted with a number of thoſe greene flies called Cantharides, deviſed this meanes to be rid of them: for they cauſed their women at the time of their monthly tearmes (ſaving the reverence of womanhood bee it ſpoken) to goe through the ſtanding corne, with their cloths tuckt up round above their waſt, and all bare beneath. In other countries yet they are more mannerly, and in a better reſpect to the honour of women, put them onely to goe barefoot for this purpoſe, with their haire hanging looſe about their eares, ungirt, unlaced, and unbraced. Howbeit, great heed muſt be taken, that they walke not thus at the Sunne-riſing, for then ſurely all the crop upon the ground will wither and drie away to nothing. Alſo if a woman during her naturall courſes doe but touch any young vines, it is ynough to marre them for ever. As for Rue and Ivie, plants otherwiſe of themſelves M
moſt medicinable and endued with ſingular vertues againſt poyſon, they will preſently die with their touch. Much I have alreadie ſaid of this ſtrong and peſtiferous venome, and yet I have not written all. For over and beſides, certaine it is, that if a menſtruous woman do no more but touch a Bee-hive, all the Bees will be gone and never come to it againe. Alſo if at ſuch a time ſhee han-

dle

A dle any skaines or ſlips of linnen yearn and ſet them over the fire to ſeeth, they will in the boiling turne blacke. Let her but take a barbers raſour in her hand, the edge will turne and become blunt: nay, if ſhe doe no more but touch any braſen veſſell, it is wonderfull what a ſtrong ſavour it will caſt, and how it will ruſt and canker therupon; and the rather, if this fall out to be in the decreaſe or wane of the Moone. Doth a woman at ſuch a time touch a Mare that is in fole, it is ynough to make her caſt the ſame before due time. And not only ſo, but the very ſight of women in that caſe, although they bee a great way off, is able to doe much harme: but principally at the firſt time that they have the ſaid fleurs after the loſſe of their maidenhead: or otherwiſe during their virginitie, when they firſt come downe by courſe of nature of the owne accord. The malignitie of this venomous humor is ſo great, that the ſlime engendred within the lake of Sodome in Iurie,
B as viſcous as it is otherwiſe, will forgoe all that lenacitie, and devide in ſunder by nothing els but a thred infected with the ſaid menſtruall bloud, according as I have declared heretofore. So forcible it is beſides, that the very fire, which is of power to overcome all things and change their nature, is not able to conquer and alter this: for burne or calcine it to aſhes, and ſtrew never ſo little thereof upon any cloths that are to bee waſhed or ſcoured in the Fullers mill, it will chaunge their colour, though they were of purple, and cauſe any die whatſoever to looſe the freſh luſtre. And more than that, ſo pernicious is the qualitie of this venome, that as naturall otherwiſe as it is to women, it is no better than a poyſon to thoſe of their owne ſex: for in caſe one woman with child be annointed about her naturall parts, with the foreſaid bloud of another, or doe but ſtep over the place where it is, ſhe will immediatly fall to labour, and ſlip an abortive birth. As for the
C famous curtiſanes, *Lais*, and *Elephantis*, who have written ſo contrarie one unto the other of this argument, and namely, as touching abortions, and of what efficacie the coale of Colewort, Myrtle, or Tamariske root is, after it hath been quenched in the ſaid bloud; as alſo, how ſhee-Aſſes will not conceive for ſo many yeares as they chaunce to eat Barley cornes infected therewith; beſides other ſtraunge deviſes that they have ſet abroach: I thinke them incredible, and I would not have any credit at all given unto their writings, conſidering the monſtruoſities and contrarieties which they have put downe; whiles the one preſcribeth medicines for to make fruitfull, and the other ordaineth the very ſame, to hinder conception and cauſe them to bee barren. Moreover,
D *Bythus* of Dyrrhachium ſaith, that for to make a mirror or looking glaſſe cleare again, which was dusked and dimmed by the aſpect of a menſtruous woman, the next way is to cauſe her to caſt her eyes backward to looke over her ſhoulders upon it againe: he ſaith moreover, That if women in that caſe have about them the fiſh called a Barbill, they ſhall not by that meanes infect or doe hurt at all, but the ſame menſtruous bloud ſhall looſe all the foreſaid ſtrength.

Well, as hurtfull and miſcheevous as it is otherwiſe, yet many there be who affirme it to bee in many diſeaſes medicinable: and namely, for the gout, if the place be annointed therewith: as alſo if women while their monthly ſickneſſe is upon them, doe handle the wens named the Kings evill, the ſwelling kernils behind the eares, the broad tumors or biles called Pani, Shingles, S. *Anthonies* fire, fellons, or violent flux of humours to the eyes or other parts, there will enſue much eaſe thereupon. *Lais* and *Salpe*, two notable ſtrumpets, have left in writing, That if the foreſaid menſtruous bloud beſtowed within a little locke of wooll that came from a blacke Ram, bee
E worne encloſed within a ſilver bracelet, it is a ſoveraigne remedie againſt the biting of mad dogs, and for Tertian and Quartane agues. *Diotimus* of Thebes reporteth, That any little peece or rag of cloth, yea, though it were but a thred ſtained therein, and ſo ſet handſomely into a braceler, is ſufficient to doe as much. *Sotira* the renowned midwife affirmed, That there was not in the world ſo good a thing againſt the Tertian and Quartane, as to rub and annoint therwith the ſoles of the
3 patients feet: but much more effectually would it doe the deed, in caſe the woman her ſelfe had the doing of it with her owne hand, ſo as the ſicke partie know not thereof in any hand. And this (quoth ſhe) is as ſoveraigne medicine to raiſe them out of a fit of the epilepſie, who are ſurpriſed and fallen therewith. *Icesidas* a worthy Phyſician among the Greekes, aſſureth us upon his word, That Quartane agues will make an end and goe away by the act of generation, at what time on-
F ly as a woman beginneth to enter into her fleurs. But this is agreed upon by all authors profeſſed and ſeene in this theame, that if one be bitten with a mad dog, and ſo farre gone, that he is *afraid of water, ſo as hee dare not ſee it or drinke at all, doe but put a clout or ſhred of cloth dipped in the ſaid menſtruall bloud under the cup whereout he is to drinke, he ſhall immediatly bee delivered from that feare: And this commeth by that powerfull and predominant ſympathie, whereof

* ὑδροφοβία

the

the Greekes write ſo much, betweene mad dogs and the ſaid bloud, conſidering, as I have before G
ſaid, that they begin firſt to run mad by taſting thereof. This is known for certaine, that the aſhes of a burnt cloth infected therewith, or of the bloud it ſelfe calcined, is a ſingular pouder to heale the farcins or ſores of horſes and all ſuch labouring beaſts, ſo it bee mixed with the ſoot of chimney or furnace, and all incorporat together with wax. Now ſay there be any garment or cloth polluted therewith, there is not any thing will take out the ſtaine, but the urine onely of the ſame woman. The aſhes beforeſaid tempered alone with oile of Roſes into a liniment, and ſo applied in manner of a frontale to the forehead, allaieth the headach of women eſpecially. This alſo would be noted, That for the firſt yeare after a woman hath knowne a man, and ſo parted from her virginitie, her fleurs are moſt ſharpe, mordant, and fretting. Furthermore, this alſo is reſolved clearely among all writers, That there is no charme or enchauntment whatſoever, of any validitie to doe H
harme to that houſe where the ſide poſts or dore cheeks are ſtriked lightly over with menſtruous bloud: an argument I aſſure you, that convinceth notably the follie of theſe Magicians, the vaineſt people under heaven, and overthroweth all their art: and a point that pleaſeth me very well, & which for mine owne part I am right willing to beleeve. And ſince I am light thus upon them, I care not much, if to detect their vanities, I ſet downe one of the moſt modeſt receits that they have given their word for, and which may ſeeme to carie ſome ſhew of truth or probabilitie. For thus they preſcribe with great warrantize, To take all the naile parings of toes and fingers of man or woman lying ſicke of an intermittent feaver, and to mix or incorporat them with wax, ſo as the partie in the doing hereof doe ſay theſe words, *I am about a remedie for the Tertian, Quotidian, or Quartane ague* (according as the patient is troubled with the one or other of theſe feavers) I
which done and ſaid, to ſticke up the ſaid wax upon the dore of another man or womans houſe that is not ſicke at all, and that before the Sunne be riſen: which no doubt (as they ſay) will cure the ſicke perſon, and ſet the ague upon another that was well before. Now would I gladly know what greater vanitie and follie there can be, if this medicine miſſe and doe not the feat? Or what more villanie and miſcheefe, than thus to transferre and remove diſeaſes from thoſe that be ſick alreadie, unto ſuch as be ſound and thinke no harme? To conclude, ſome of theſe Magicians are ſo farre gone, that after all the foreſaid nailes of fingers and toes bee pared, they ordaine them to be throwne into Ant holes, and to obſerve that Emmet that firſt begins to draw one of them into her neaſt, to catch her up quickly, and hang her about the necke of any one that is ſicke of an ague, and ſo the patient *pro certo*, ſhall ſhake off the diſeaſe and be quite rid of it. K

Chap. viii.

The medicines that are found in diverſe ſtrange and forraine beaſts, as namely, the Elephant, Lion, Camm ell, Hyæna, Crocodile, Chamæleon, Skinke, Water-horſes, and Ounces.

THeſe be the remedies which the bodies of men and women doe affourd: as many I meane as I may with ſome honeſtie relate: and yet ywis many of them be ſuch as are not to be red out and uttered, but with leave and patience firſt craved, for the reverence that wee owe to chaſt eares. I know full well there is a great deale more behind that I have not touched, but ſuch L
ſtuffe I aſſure you as is deteſtable and not fit to be ſpoken or committed to writing, which makes me rather to make haſt and leave the diſcourſe of Man and Woman, and ſo to proceed to the ſingular vertues and operations of brute beaſts.

And to begin with the Elephant, The bloud of that beaſt, eſpecially the male, ſtaieth all fluxes of humors, which the Greeks call Rheumatiſms. The ſhavings of yvorie (which is the Elephants tooth) incorporat with Atticke honey, ſcatter (as folke ſay) the duskiſh ſpots that appeare in the viſage: like as the duſt thereof, which the file or ſaw doth make, cureth the whitflaws or impoſtumations breeding at the naile roots. The trunke or muffle of an Elephant if it bee but touched onely, allaieth the headach; and the more effectuall it is, in caſe ſneezing come withall. It is ſaid moreover, if one take a peece of the right ſide of the ſame trunke, & carie it faſt about him with M
the red ocre of Lemnos (called Terra Sigillata) it will incite him mightily to carnall luſt. The bloud of an Elephant is ſingular good for thoſe that bee in a conſumption and waſt away: like as the liver helpeth ſuch as be given to the falling ſickneſſe.

The greaſe or fat of a Lion tempered with oile of Roſes into an unguent, preſerveth the skin

of

A of the face from all illfavoured ſpots, and keepeth it white and ſmooth. The ſame ointment hea-
leth the skin that is ſcorched and pilled with cold, by travelling over mountaines charged with
Snow; yea, and abateth the tumors and nodoſities upon the joints. Now, if wee liſt to beleeve the
fooleries of Magicians, they would beare us in hand, that whoſoever bee annointed all over with
the ſaid greaſe, ſhall bee gracious with princes and kings, yea, and win much favour among the
people, and any State or nation where they ſhall converſe: but principally it muſt bee the fat in
the forehead betweene the eyebrowes, (where indeed it is unpoſſible to find any at all.) The like
effects they doe promiſe of the Lions teeth, and thoſe eſpecially of the right ſide; like as of the
ſhag haire (forſooth) that ſhould hang under their nether jaw. Indeed the gall of a Lion mixed
with water, clarifieth the eyeſight, in caſe the eyes be bathed therewith. The ſame tempered with
B the owne greaſe, diſpatcheth as they ſay the falling ſickneſſe, in caſe the patient taſt never ſo little
of it, and ſo ſoone as hee hath taken it, run a while for to digeſt the ſame. A Lions heart cureth
the Quartane ague, if the ſicke perſon doe eat thereof: and their fat is a ſoveraigne remedie for
the feaver Quotidian, if it be uſed with oile roſat. There is not a beaſt ſo fell and ſavage, but it will
run away from them that be annointed with Lions greaſe: and it is thought to be a ſingular pre-
ſervative for to prevent any ſecret ambuſhes or practiſes intended againſt one.

As touching the Cammell, his braine (by report) is excellent good againſt the epilepſie or
falling ſickneſſe, if it bee dried and drunke with vinegre: ſo dooth the gall likewiſe taken in drinke
with honey: which alſo is a good medicine for the Squinancie. It is ſaid, that a Cammels taile dri-
ed, cauſeth looſeneſſe of the bellie: like as the dung reduced into aſhes and incorporat with oile,
C doth curle and frizle the haire of the head. The ſaid aſhes made into a liniment and ſo applied,
yea, & taken in drinke as much as a man may comprehend with three fingers, cureth the dyſente-
rie: ſo doth it alſo the falling ſicknes. Cammels piſſe (they ſay) is paſſing good for Fullers to ſcour
their cloth withall: and the ſame healeth any running ſores which bee bathed therein. It is well
knowne that the barbarous nations keepe this ſtale of theirs untill it be five yeares old, and then a
draught thereof to the quantitie of one hemine, is a good laxative potion: likewiſe that the hair
of their tails, twiſted into a wreath or cord, and ſo worn about the left arme in manner of a brace-
let, cureth the Quartane ague.

As for the Hyæna, there is not a wild beaſt of the field that the Magicians have ſo much in ad-
miration as it: For they hold that in the Hyæna it ſelfe there is a certaine Magicall vertue, attribu-
D ting a wonderfull power thereto, in tranſporting the mind of man or woman, and raviſhing their
ſences ſo, as that it will allure them unto her very ſtrangely. Concerning the rare property of theſe
beaſts to chaunge the ſex each other yeare, that is to ſay, to be male this yeare & female the next;
as alſo touching other monſtrous qualities obſerved in their nature; becauſe I have diſcourſed al-
readie of them, it remaineth now that I proceed to ſhew the medicinable vertues that are repor-
ted to be found in them: whereof this may bee counted for one of the cheefe, that conſidering
they be ſo terrible unto *Panthers, that they dare not quetch nor make head againſt them: who- *i. Luzernes.
ſoever hath about him but a peece of the Hyænes skin may be ſure that a Panther will not ſet up-
on him, nor once come near. And that which is a wonderfull thing to be ſpoken, in caſe the hides
of them both be hung up one againſt another, the haire of the Panther will fall off. When the
E Hyæne flieth before the hunter and would not bee taken, they wind with a cariere out of the way
toward the right hand, and wheele about untill the man be gotten before them; and this they do,
becauſe they would meet with his tracts and footing; which if they happen upon, and get be-
hind him, you ſhall ſee the hunter incontinently to be ſo intoxicat in his braine, that he is not a-
ble to beare his head nor ſit his horſe, but to fall from his backe. But in caſe that they turn on the
left hand, it is an evident ſigne that they bee readie to faint, and then will they quickly bee taken.
The ſooner alſo and with more eaſe be they caught (if we may beleeve art Magicke) if the hun ter
tie his girdle about his middle with ſeven knots, and the cord of his whip likewiſe wherewith hee
ruleth and jerketh his horſe, with as many. But ſee how ſubtle and cunning theſe Magicians be to
cloke and colour their vanities and deceits, with ſuperſtitious circumſtances! This chaſe forſooth
F after the Hyæne, muſt be juſt at the very point when the Moone is paſſing through the ſigne Ge-
mini: and then if they be taken, the huntſman muſt be ſure to ſave every haire of their skins, and
miſſe not one, ſo medicinable they are. By their ſaying alſo the skin that groweth to the head of
the Hyæne, if it be applied in manner of a frontale, is ſingular good for the headach. The gall of
the Hyæne cureth bleared eyes, if the forehead be annointed therewith: but if the ſame bee ſod-

den

den with three cyaths of Atticke honey and one ounce of Saffron, to a liniment, it is an excellent preſervative to keepe one from ever being bleare eyed, if ſo be the eyes be annointed with it. The ſaid compoſition likewiſe is ſingular for to rid away the cloudie filmes and catarracts that breed in the eye. But for to clear the ſight and quicken it, the older this medicine is, the better they hold it to be. And kept it muſt bee in a braſen or copper box: which eyeſalve they ſay, ſerveth alſo for the mailles or ſpots, for the aſperities, excreſcences, cicatrices, dents, and excavations remaining in the eyes. The gravie or dripping likewiſe of the Hyænes liver, newly taken out of the bodie and roſted, beeing incorporat with clarified honey into an unguent, riddeth away the red filme that overcaſteth the apple of the eye and darkeneth the ſight thereof. They will make us beleeve, that the Hyænes teeth are good for the toothach, if the pained teeth be but touched therewith, or if the ſaid teeth bee arraunged in order, and ſo applied faſt unto the patients teeth, as they may fit every tooth in his head. The ſhoulders alſo of the Hyæne are proper for to eaſe the paines that lie in our ſhoulders and armes both, ſo they be ſet likewiſe orderly and hanged cloſe to the greeved parts. The teeth of the ſaid Hyæne plucked out of the left ſide of the chaw, and bound up ſure within a peece of a ſheepe or goats skin, is right ſoveraigne to be worne in manner of a ſcutcheon or ſtomacher for to eaſe the intollerable paines of the ſtomacke. A diſh of meat made of their lungs and eaten, is ſoveraigne for the flux proceeding from a feeble ſtomacke. But if the ſame bee burnt and reduced into aſhes, and ſo brought into the forme of a liniment with oile, and applied accordingly, it comforteth the ſtomacke mightily. The pith or marrow taken out of the backe bone along, and incorporat with old oile and *gall, is paſſing good for the nerves. The liver of the Hyæne driveth away Quartane agues, in caſe the patient take three bits therof one after another before the acceſſe. Take the aſhes of the Hyænes ridge bone, the tongue and right foot of a Seale, put thereto a Buls gall, ſeeth them all together and make a cataplaſme thereof, ſpreading the ſame upon a peece of a Hyænes skin, and applie it accordingly, you ſhall ſee how it will eaſe the paine of the gout. The very gall likewiſe of this beaſt mixed with the pouder of the ſtone Aſius, is commended by them for to cure the ſaid maladie. They that are ſubject to trembling and to the crampe, ſuch alſo as be given to leape out of their beds, or are troubled with the beating and panting of the heart, ought to take and boile the heart of the Hyæne, and eat one part therof, and with the other being burnt to aſhes and with the braines of the ſaid Hyæne together reduced into a liniment, to annoint the greeved part. This compoſition likewiſe ſerveth to take away the haires of any place, if it be annointed either with it alone, or els with the gall, and in caſe one would not have them ever to come up againe, they ought to be plucked up before, and then the place to bee annointed. Thus they uſe to rid away the haires of the eyelids that bee troubleſome. In like manner for the paines of the loines, the fleſh about the Hyænes loines is preſcribed to be eaten, and therewith oile together, and the place alſo is to bee rubbed well and beſmeared. They ſay moreover, that if a woman which is barren, eat the eye of a Hyæne with Liquirice and Dill, ſhe ſhall prove fruitfull: and ſo neare they go, as to promiſe ſhe ſhall conceive within three daies after. And (by their report) whoſoever are haunted with ſprites in the night ſeaſon, and be affrighted with ſuch bugbeares, let them but take one of the maiſter teeth of the Hyæne, & weare it about them tied by a linnen thred, they ſhall be freed from all ſuch fantaſticall illuſions. Theſe Magicians alſo give direction to thoſe that bee out of their wits and gone beſides themſelves, to have a perfume made with the ſmoake of thoſe teeth, and to weare one of them hanging before the breaſt, with the fat growing about the kidneies, or elſe with the liver or the skin. If a woman be with child, and would gladly go out her full time, let her take a peece of the white fleſh of this beaſt, and ſeven haires, neither more nor leſſe, together with a ſtags pizzle; bind them all faſt within the skin of a Bucke or Doe, and ſo weare them hanging about her neck juſt againſt her breaſt, ſhe ſhall not ſlip an untimely fruit. Furthermore they promiſe in the behalfe of this beaſt, that if a man or woman doe eat the genitall member of a Hyæne, according to their ſex, they ſhall bee provoked to fleſhly luſt, how cold ſoever the man were before, and could not abide to embrace a woman. Over and beſides, if the ſaid pizzle and ſhap of this beaſt bee kept in any houſe, together with a joint of the ridge bone, skin & all as it groweth too, the whole familie ſhall agree together well, and live peaceably: now this joint or knot aboveſaid they call Atlantion, and it is the very firſt ſpondyle of them all. The ſame alſo they make no ſmall reckoning of, but hold it for a ſpeciall remedy for the falling ſickneſſe. Frie the greaſe or fat of an Hyæne, the fume therof (by report) will chaſe away ſerpents. A peece of the chawbone beaten ſmall into pouder and eaten together with

G H I K L M

*Felle. Some read melle, i. honey.

A with aniſe ſeed, doth mitigat the quivering and quaking in a cold ague fit. A ſuffumigation made therewith, draweth downe womens ſickneſſe, if we may beleeve magicians; who are grown to this paſſe in their vanitie, that they avouch for certaine, That if an archer doe bind unto his arme a tooth of an Hyæne, growing on the right ſide of the upper chaw, hee ſhall ſhoot point-blanke
5 and never miſſe his marke. Take the palat or rouſe of the mouth of this beaſt dried and made hot togither with Ægyptian alume, put the ſame into the mouth and chaunge it three times for new ſtill, they promiſe it ſhall correct a ſtinking breath, and heale any ulcers or cankers in the mouth. And as for thoſe that weare under the ſoles of their feet within the ſhooe, a Hyæns tongue, there is not a dog will be ſo hardie as to bay or barke at them. The brain of the Hyæne lying in the left ſide of the head, eaſeth any deadly diſeaſes of man or beaſt, if the noſthrils be annointed there-
B with. The skin of the forehead ſerveth as a countrecharme againſt all witchcraft and enchauntments. The fleſh growing to the nape of the neck, being dried and made into powder, appeaſeth the paine in the loins of the backe, either eaten or drunke, it skills not whether. For the griefe of ſinews, they give order to make a ſuffumigation with the nerves of Hyæna, which run along the ſhoulders and backe. And the hairs growing about the muzzle of this beaſt, have an amatorious vertue with them, to make a woman love a man, in caſe her lips be but touched therewith. The li-
5 ver of the Hyæna given in drinke, cureth the cholique and ſtone. As for the heart, bee it taken in meat or drinke, it eaſeth all the pains of the bodie: the milt cureth the ſpleene: the kell with the fat about it, helpeth any inflammation of ulcers if it be applied with oile: the marrow within the bones, appeaſeth the griefe of the backbone and ſinews; and finally, doth recover and refreſh the
C wearineſſe of the reins and kidnies. The ſinews of this beaſt drunke in wine with frankincenſe, reſtore women to the fruitfulneſſe of the womb, eſpecially when by indirect means of ſorcerie they are become barren and unapt for conception. The matrice of the female Hyæne given in drinke with the rind of a ſweet pomegranat, is a verie comfortable medicine for that part in a woman. A ſuffumigation made with the fat taken from the hetchill peece or loines, is ſingular for thoſe
5 women that be in hard travaile of child, and procureth them ſpeedie deliverance. The marow or pith out of the ridge-bone whoſoever carieth about them, ſhall find helpe againſt vaine illuſions and fantaſticall imaginations. The pizzle of the male Hyæna, if it be burnt, caſteth a fume which is good for them that have any ſinews plucked with the crampe. Save the feet of this beaſt, and the verie touching of them is ſoveraigne for bleared eyes, for ruptures, and inflammations: but
D this regard muſt be had, that the left foot be applied to thoſe griefs in the left ſide, and the right to the contratie. But wot yee what? if the right foot of the Hyæna chaunce to be carried over a woman whiles ſhe is in labour of child birth, ſhe ſhall ſurely die of it; but contrariwiſe, let it be the right foot, ſhee ſhall have quicke diſpatch and be delivered with eaſe. The skin or purſe that holdeth the gall, being either drunke in wine or taken with meat, helpeth thoſe that for weake-neſſe of ſtomacke be apt to faint and fall into cold ſweats: and the bladder taken with wine, cureth thoſe that cannot hold their water. Now looke what urine is found within the bladder of this beaſt, you muſt thinke it is an excellent drinke if it be mixed with oile, Seſame ſeed, and honey, for any old griefe whatſoever. The firſt rib and the eigth will make a perfume, which is paſſing good for thoſe who are burſten: the ſpondyles or joynts of the ridge-bone, are as conveni-
E ent for women in travaile of childbirth: and the Hyæns bloud taken inwardly with fried barley meale, doth mitigat the wrings and gripes of the bellie. If the ſide poſts or doore-cheeks of any houſe be ſtriked with the ſaid bloud, whereſoever magicians are buſie with their feats and jug-
3 gling caſts, they ſhall take no effect, whether they be charmes, exorciſms, or invocations: inſomuch as they ſhall not be able to raiſe up ſpirits, nor have any conference with familiars by any means of conjuration, whether it be by torch-lights, by baſon, by water, by globe, or otherwiſe. The fleſh of this beaſt eaten, is very effectuall againſt the biting of a mad dog; and yet the liver is of greater efficacie in this caſe. If there chaunce either fleſh or bone of man or woman whome this beaſt hath killed and devoured, to be found in the maw, ſurely the perfume thereof is a preſent remedie for the gout, as theſe magicians would ſeeme to perſuade us. But how if there be
F found the nails of man or woman there? then woe be to all thoſe that were at the hunting and taking of this beaſt, for it preſageth that one of them is ſure to die for it. Beſide all this, they doe affirme, That either the excrements or bones which the Hyæna diſchargeth out of the belly at the time that ſhe is killed, ſerve for countrecharms or preſervatives againſt ſorceries and practiſes of magicians. As for the ordure or dung which is found within her guts, being dried and ta-

ken in drinke, is availeable againſt the dyſenterie: and the ſame reduced into a liniment with G
gooſe greaſe and ſo applied, helpeth thoſe that by ſome poiſon are infected all the bodie over.
The greaſe likewiſe of this beaſt uſed as an ointment, hath a ſingular propertie to cure the biting
of a dog, ſo that the patient be couched upon the skin of the ſaid Hyæna, as ſay our magicians:
who affirme moreover, that a decoction made with the aſhes of the paſterne bone of the left leg,
boiled togither with the bloud of a weazill, cauſeth as many as be annointed all over therewith,
to be odious in the eyes of all men. The ſame effect doe they attribute to the decoction of the
eye. But of all the fooleries that they have broched as touching the Hyæna, this paſſeth & may
goe for the chiefe, That the hinmoſt end of the gut in this beaſt is of vertue, that no captaine,
prince, or potentat, ſhall be able to wrong or oppreſſe thoſe who have but the ſame about them:
but contrariwiſe aſſureth them of good ſpeed in all their petitions, and of happie iſſue in all H
ſuits of law and trialls of judgements. The concavitie or wrinkle thereof, if a man doe weare faſt
tied about his left arme, is ſo forcible to charme a woman, that if hee doe but ſet his eye upon
her, ſhe will leave all and follow him preſently. The aſhes of the haire growing thereabout made
into a liniment with oile, and applied accordingly, cauſeth thoſe men who before were given to
lewd wantonneſſe and lived in bad name, not onely to become chaſt and continent, but alſo to
put on gravitie and grow ſtaied in their behaviour. Thus much of Hyæna.

For fabulous tales, the Crocodile may challenge the next place: a beaſt this is which natu-
rally doth live as well on land as in water: for two kinds there bee of them; whereof the former,
(keeping thus in both elements) hath this eſpeciall vertue, if we may beleeve theſe magicians, To
provoke unto carnall luſt, if the teeth which grew in the right ſide of the chaw, bee hanged faſt I
likewiſe to the right arme of man or woman. The eye-teeth of the ſaid Crocodile, filled up with
frankincenſe (for hollow they be) and tied ro any part of the bodie, put by thoſe periodicall fe-
vers which uſe to returne at ſett and certaine hours; but then the patient muſt not for five daies
togither, ſee the partie who faſtened the ſame about him. And they report likewiſe, that the little
gravell ſtones taken out of their belly, bee of the ſame vertue to drive away the ſhaking fitts of
agues when they are comming: which is the cauſe that the Ægyptians uſe ordinarily to annoint
their ſicke folke with the fat of this beaſt. The other Crocodile reſembleth this in forme, but far
leſſe hee is, and keepeth onely upon the land, living upon moſt ſweet and redolent floures. In
which regard, much ſeeking there is after his guts, for the pleaſant ſenteurs and odours where-
with they be ſtuffed full: this dung they call Crocodilea, a ſingular remedie for all the diſeaſes K
of the eyes, and namely againſt cataracts, ſuffuſions, and miſtie filmes, if they bee annointed
with an eye-ſalve, made of it and the juice of porret mixed togither. The ſame brought into a
liniment with the oile Cyprinum, ſerveth to take away all pimples that riſe in the face, and clean-
ſeth the skin from thoſe ſpots that blemiſh the viſage. But if it be incorporat with water, it ſcou-
reth whatſoever accidents be apt to run over the face, and reduceth the skin unto the native co-
lour; for it riddeth freckles, moles, and generally any ſpots or flecks that marre the beautie or
favour. The ſame is good to be drunke in oxymell to the weight of two oboli for the falling ſick-
neſſe: and applied in forme of a peſſarie, it provoketh womens fleures. Now if you would chuſe
the beſt Crocodilea, take that which is whiteſt, brittle or eaſie to crumble, leaſt weightie in hand,
and withall ſwelling in manner of a levaine, if it be rubbed between the fingers. The manner is L
to waſh it, as they doe white lead called Ceruſſe. Sophiſticated it is with amyll, or the ſcouring
Fullers cley and Tuckers earth called Cimolia; but principally with the dung that ſterlings meut,
which are of purpoſe caught and fed onely with rice. Now there is not a better thing in the world
(ſay theſe magicians) for the cataract, than to annoint the eyes with it and honey togither. And
if a man may beleeve their words, there is a ſoveraigne perfume made of the guts and the whole
bodie beſides, for women who are ſicke of the morher, or otherwiſe diſeaſed in the matrice, if
they ſit over it whiles it ſmoketh. In like manner, it doth them good to bee lapped round about
with wooll that hath been ſo perfumed. The aſhes of the Crocodiles skin, as well the bigger as
the leſſe, brought into a liniment with vinegre, and applied unto thoſe parts of the bodie which
had need to be cut away or diſmembred, cauſeth the patient to have no ſenſe or feeling at all ei- M
ther of ſaw or launcer. The verie ſmoke alſo of the ſaid skin burning, doth the ſemblable. The
bloud of both Crocodiles mundifieth the eyes, and cauſeth them to ſee cleere which are an-
nointed therewith, removing the filmes and diſpatching the ſpots that empeach the ſame. The
verie bodie or fleſh it ſelfe of the Crocodile, all ſave head and feet, is good meat ſodden, for

thoſe

A thoſe who bee troubled with the Sciatica: the ſame cureth an old cough, eſpecially the chin-cough in children; and aſſuageth the paine of the loins. The Crocodiles have a certaine fat in them which is depilatorie; for no ſooner is the haire rubbed therewith, but preſently it ſheddeth. The ſaid fat or greaſe preſerveth thoſe who be annointed therwith, from the danger of the Crocodiles, and is excellent good to bee melted and dropped into the wounds made by their bit. The Crocodiles heart lapped within a locke of wooll which grew upon a blacke ſheepe, and hath no other colour medled therewith, ſo that the ſaid ſheepe were the firſt lambe that the dam yeaned, is ſaid to drive away quartan agues.

To this diſcourſe of Crocodiles, wee ſhall not doe amiſſe if wee annex other beaſts in ſome ſort reſembling them, and which bee likewiſe ſtraungers as well as they. And to begin with the
B Chamæleon, *Democritus* verely made ſo great reckoning of this beaſt, that hee compiled one entire booke expreſſely of it, and hath anatomized everie ſeverall member thereof. And certes I cannot chuſe but take great pleaſure therein, knowing as I doe by that means how to deſcipher and deliver abroad the lowd lies of vaine Greekes. This Chamæleon for ſhape and bigneſſe, is much anſwerable to the Crocodile laſt named, differing onely in the curbing or crookedneſſe of the ridge-bone, and largeneſſe of the taile. There is not a creature in the world thought more fearfull than it; which is the reaſon of that mutabilitie whereby it turneth into ſuch varietie of colours: howbeit of exceeding great power againſt all the ſorts of hawkes or birds of prey; for by report, let them flie and ſoare never ſo high over the Chamæleon, there is an attractive vertue that will fetch them downe, ſo as they ſhall fall upon the Chamæleon and
C yeeld themſelves willinggly as a prey to be torne, mangled, and devoured, by other beaſts. *Democritus* telleth us a tale, That if one burne the head and throat of the Chamæleon in a fire made of oken wood, there will immediatly ariſe tempeſts of rainie ſtorms and thunder togither: and the liver will doe as much (ſaith hee) if it burne upon the tiles of an houſe. As for all the other vertues which the ſaid author aſcribeth to the Chamæleon, becauſe they ſmell of witchcraft, and I hold them meere lies, I will overpaſſe them all, unleſſe they be ſome few, for which he deſerveth well to be laughed at, and would indeed be reproved by no other means better: namely, That the right eye of this beaſt if it be pulled out of the head whiles it is alive, taketh away the pearle, pin and web in man or womans eyes, ſo it be applied thereto with goats milke. The tongue likewiſe plucked forth quicke, ſecureth a woman from the daunger of childbirth, if ſhee
D have it bound to her bodie whiles ſhee is in travaile. If there be found by chaunce a Chamæleon in the houſe where a woman is in labour, ſhee ſhall be ſoone delivered in ſafetie: but if ſuch an one bee brought thither of purpoſe, the woman is ſure to die. Alſo, the Chamæleons tongue pulled out of the head whiles the Chamæleon is quicke, promiſeth good ſucceſſe in judiciall trials. The heart bound within blacke wooll of the firſt ſhearing, is a moſt ſoveraigne remedie againſt quartan agues. The right forefoot hanged faſt to the left arme within the skin of a Hyæna, is ſingular againſt the perils and daungers by theeves and robbers; as alſo to skare away hob goblins and night-ſpirits. In like manner, whoſoever carrie about them the right pap of this beaſt, may be aſſured againſt all fright and feare. But the left foot they uſe to torrifie in an oven with the hearbe called alſo Chamæleon, and with ſome convenient ointment or liquor to make
E in certaine troſches, whereof if a man doe carrie any in a box of wood about him, he ſhall goe inviſible, as ſaith *Democritus*, if wee were ſo wiſe as to beleeve him: who affirmeth moreover, That whoſoever hath about him the right ſhoulder of the Chamæleon, ſhall be able to overthrow his adverſarie at the barre, and to vanquiſh his enemie in the field: but firſt hee muſt be ſure to caſt away and make riddance of the ſtrings and ſinewes belonging thereto, and to tread them under foot. As for the left ſhoulder, I am aſhamed to relate, unto what monſtrous ſpirits hee doth conſecrat it; and namely how by the vertue thereof, a man may cauſe what dreams and fantaſticall illuſions hee liſteth, yea and make thoſe whome hee will himſelfe, to imagine the ſame apparitions. As alſo, how the right foot of the ſaid beaſt driveth away all ſuch ſtraunge viſions; even as the lethargie will goe away by the means of the left ſide of this beaſt, which lethar-
F gie was occaſioned by the right. Touching head-ach, hee ſaith plainly, that the next way to cure it, is to beſprinkle and wet the ſame with wine wherin either of the two ſides were ſoked. Take the aſhes (quoth hee) of the left thigh or foot, chuſe you whether, incorporat the ſame with the milke of a ſow, and therewith annoint the feet, it will be an occaſion, ſpeedily to bring the gout upon them. But of the Chamæleons gall, for the moſt part folke are in maner verely perſuaded,

that it will rid the pin and web, the cataract also of the eyen, with three daies annointing; chase away serpents if it bee dropped into the fire; gather all weazils in a countrey togither, onely by throwing it into the water; and fetch off haire if the bodie bee annointed therewith. It is a common saying also, That the liver of this beast is of the same effect, in case it be brought into a liniment with the lights of a hedge land toad: like as, that all amatorious drinks and love-charms become void and of none effect by the said liver. As for those who be troubled in mind & given to melancholie, they find remedie, if out of this beasts skin they drinke the juice of the hearbe Chamæleon. Furthermore, the guts, and the dung therein contained (and that is worthie to be noted, considering this beast liveth upon no meat at all) being striked upon the doore of an enemies house, togither with the urine of apes, cause him to be hated of all the world. The like wonders they report of the Chamæleons taile, namely, how it will stay any violent streame of river; stop the course and inundations of waters; and withall, bring asleepe and mortifie serpents. The same being aromatized or spiced with Cedar and Myrrhe, and tied fast to a braunch of the Date tree growing double or forked, will devide the waters that be smitten therewith, so as a man may see whatsoever is in the bottome. And would God *Democritus* himselfe had met with one crop of this branch, to have made him hold in so many lies as he hath told, considering that he hath reported this qualitie of it among other, namely, To represse intemperat speech and inordinat walking of the tongue. But evident it is, that the onely reason why *Democritus* faulted that way, (beeing otherwise a man of a singular wit and wholly addicted to the good of mankind) was an excessive and extraordinarie zeale that he had to profit and benefit the whole world.

Much like to this kind is the Skinke (whome some have named the land Crocodile) but that the skin is whiter & more fine. But the principall difference is this, For that the bristles or skales are couched so, as they tend from the taile upward to the head; whereas in a crocodile the same are set contrarie. The biggest of this sort, be those of India: the next be they which are brought out of Arabia; and transported they be unto us salted. The muffle and the feet given to drinke in white wine, doe enflame the heat of lust; but specially when they be mixed with Satyrion and Rocket seed, of each one dram, mingled with twaine of pepper; and when they be wrought into troches weighing every one a dram, one of them must be taken at once. But the verie flesh of the Skinks sides, drunk to the quantitie of two oboli, with myrrhe and pepper in like proportion, are supposed to be more effectuall for this purpose. The same (as *Apelles* reporteth) taken both before and also after meat, is a singular preservative against envenomed arrowes. Besides, it is one of the ingredients which goe to the noble compositions that be called Antidots. Howbeit, *Sextus* is of opinion and doth write, That if a man drinke above one dram-weight of it in a hemine of wine, it is enough to endaunger his life. Moreover, the juice or broth of the Skinkes flesh boiled and taken with honey, is thought to keepe downe the flesh and to coole lust.

As touching the river-horse called Hippopotamus, there is a great affinitie or kindred rather betweene him and the crocodile, in regard that they both doe haunt the same river, and participat both of land and water. This beast (as I have shewed heretofore) devised first the practise of phlebotomie or bloud-letting. Great store there be of them beyond the seignorie Saïtica in Ægypt. Take the ashes of this beasts hide, and reduce them with water into a liniment, it is singular to cure the broad biles or apostemations called Pani. The grease, and likewise the dung, is good against the cold fit of agues, if the Patient receive the perfume thereof. The teeth which grow on the left side of the mouth, doe ease the toothach, if so be the gumbs be scarrified therewith. The skin taken from the left side of the forehead, laid unto the share and kept fast thereto, staieth the provocations to venerie. The ashes of the same doth cause the haire to grow againe thicke in those places, where by disease it is shed. Take of the genetoirs of this water-horse the poise of one dram, and drinke it in water, it is a good countrepoison against the venome of serpents. As touching their bloud, it serveth painters in good stead.

The Onces be likewise taken for strange and forrein, and of all foure-footed beasts they have the quickest eye and see best. By the testimonie of all writers, there is in the Island Carpathos, a singular kind of ashes made of their houfs, burnt togither with their hide: and they hold, that if men drinke therof, they will become chast, were they never so licentious and libidinous before: againe, let women cast the same upon their nature or privie parts, it will coole their appetit of mans companie; yea and kill the itch in any part of the bodie, if it be rubbed therwith. And the urine of this beast helpeth the strangurie, to wit, the infirmitie of the bladder when the water

passeth

A paſſeth by drop-meale: which propertie they beeing by a naturall inſtinct aware of, ſo ſoone as ever they have piſſed, doe hide and cover the urine with mould, which with their feet they raiſe juſt over it, as it is commonly reported. The ſame urine is preſcribed for a good remedie in the paine or griefe of the throat. Thus much may ſuffice as touching forrein beaſts: returne therefore now I will to thoſe in this part of our world; and firſt declare the vertues and properties medicinable which are found common in all living creatures, yet making choiſe of thoſe that beeſingular above the reſt.

Chap. IX.

B *The common and ordinarie medicines drawne as well from wild beaſts as thoſe which be tame of the ſame kind. The uſe of milke in Phyſicke, with the obſervations belonging thereto. Alſo of Gheeſe, Butyr, the greaſe alſo and tallow of beaſts.*

And to begin with Milke: Theſe points following are to be obſerved: *Imprimis*, Ech living creature liketh beſt and findeth moſt good by the owne mothers milke. *Item*, For nources to conceive with child whiles they give ſucke, is a moſt hurtfull thing to their babes: for after ſuch a time, their milke will thicken and cruddle in manner of a cheeſe (a daungerous matter for ſucking infants) who thereupon be called Coloſtrati. Now the beeſtings, called in Latine Coloſtra, is that thicke and ſpungeous milke which is drawne firſt from the teat after the birth of
C the young, be it in woman or beaſt. Alſo, there is no milke ſo nutritive as that of a woman, whatſoever it be: next unto which, goats milke is thought to nouriſh moſt: whereupon haply aroſe the fable that Poets feigned, who deviſed, that *Iupiter* was ſuckled therewith. Howbeit, ſetting womans milk aſide, the ſweeteſt of all other is that which the camels give: but aſſes milk is ſuppoſed to have moſt vertue and efficacie in it. Moreover, this is to be noted, that the bigger bodied beaſts be more glad-milch, and their milk ſooner paſſeth away through the belly and is eaſier digeſted than that of the ſmaller kind. Goats milk agreeth beſt with the ſtomack; the reaſon is this, Becauſe they brouſe, rather than graze: but cow milke is held to be more aromaticall and medicinable: howbeit ewes milke is the pleaſanter, and yeeldeth more nouriſhment; notwithſtanding it be not ſo holeſom, for that it is more fattie and groſſe than any other. And generally, the milke
D which any beaſt giveth in the Spring, is more wateriſh and fuller of whey than in Summer time; like as the milke of any young thing is thinner than other. But ſimply the beſt milke is that held to be, which ſticketh to ones naile and will not run off. Milke is leaſt offenſive and hurtfull when it is ſodden, eſpecially with little gravell ſtones among. Cow milke of all other is thought meeteſt for to make the bodie ſoluble. But what milke ſoever it be, leſſe ventoſities it engendreth boiled than raw. In ſum, this propertie hath milke in generall, To heale all inward ulcerations, but principally of the kidnies, bladder, guts, throat, and lungs. Applied outwardly, after a ſpare diet or abſtinence from meat, it cureth the itch of the skin; and any wheals and breakings forth occaſioned by phlegmaticke humors. As for the diet-drinke made of cow milke (which they uſe in Arcadia for the phthyſicke or conſumption of the lungs, for thoſe that be given to colliquations
E and to weare away, as alſo in caſe of miſliking when the habit of the bodie receiveth no benefit by food) I have written alreadie in my treatiſe of Hearbs. Wee ſhall find upon record in the Chronicles, divers who by drinking aſſes milke, have been delivered from the gout, as well of hands as feet. The Greeke Phyſicians, beſides the generall kinds of milke, have made mention of one more, which is artificiall, and they name it Schioſton: The manner of making it is thus: Take what quantitie you will of any milke, but let it be of a goat eſpecially, if you can come by it, ſeeth the ſame in a new earthen pan never occupied before, with certaine branches of figg-tree, ſuch as be freſh and new gathered; but you muſt put to everie hemine of milke, one cyath of mead or honied wine: while it doth ſeeth, keepe it from running over the veſſell, by plundging into it a ſilver gobblet or boll-full of cold water, and take heed that none thereof doe run out:
F after it is throughly ſodden take it from the fire; for when it is cooled, you ſhall ſee how the parts thereof will divide, and the whey depart from the milkie ſubſtance. Some there be, who take the verie whey againe, beeing now verie ſtrong of the mead or muſt above-ſaid, and boile the ſame untill a third part thereof be conſumed, and then ſet it a cooling abroad in the open aire: The uſe hereof is verie effectuall and commodious, if for five dayes ſpace togither, the pa-

tient take at times, with ſome reſt betweene, one hemine thereof in a day; but after the drinking G
of this whey, if ſome exerciſe by geſtation bee preſently uſed, it will have the better operation.
This drinke is uſually given to thoſe that be ſubject unto the falling ſickneſſe, the paſſions of me-
lancholie, and the palſie; alſo for the leproſie, elephanſie, and all gouts or diſeaſes of the joynts.
But to returne againe unto milke: a clyſtre made therewith, is excellent good againſt any inward
gnawings and frettings occaſioned by the taking of ſome ſtrong purgative medicines. Alſo in
caſe of the dyſenterie, or hote exulceration of the bowels, the decoction of milke ſodden togi-
ther with the gravell ſtones about the ſea ſide, or with barley ptiſane, is paſſing good to be clyſte-
rized: but for the corroſion of the guts, the milke of kine or ewes is better than any other. Alſo
for the dyſenterie or bloudie flix, the milke that is injected by way of clyſtre, would be freſh and
newly drawne from the udder: for the cholique, it ought to bee miniſtred raw without any boi- H
ling: in like manner is it to be uſed raw, for the diſeaſes of the matrice, the ſting of ſerpents, the
phthyſicke, the poiſons of the Cantharides, Salamander, Bupreſtis, and Pityocampe. But to
grow unto more particulars: cow milke is ſingular for them who bee poiſoned with drinking
Colchicon, Hemlocke, Dorycnium, or the venome of the Sea-hare. As for aſſe-milke, it is ſo-
veraigne good for thoſe who have taken inwardly, any plaſtre, ceruſe, * brimſtone, or quicke-
ſilver: alſo to looſen the belly that is coſtife in a fever: moreover, if the throat be exulcerat with-
in, it is an excellent thing to gargarize therewith. The ſame is a verie good reſtorative for them
to drinke, who after great weakneſſe are upon their recoverie and would gather ſtrength againe:
ſuch alſo as the Greeks call Atrophos, who have no feeling nor benefit of their meat: alſo it may
bee allowed in an ague, ſo that the Patient have no head-ach. It was held in old time for a nota- I
ble ſecret in Phyſicke, to give unto children before meat one hemine of aſſes milke; or at the
end of a meale, if they felt any fretting or gnawing occaſioned by their meat: but for default
hereof, they uſed goats milke in ſtead of the other. The whey of cow-milke is above all, ſove-
raigne for thoſe that be troubled with ſtreightneſſe of breath, ſo as they cannot fetch their wind
but ſitting upright, if there be put to it a little creſſes: alſo it is good therewith to annoint bleared
eyes, adding to everie hemine of milke foure drams of Seſame beaten to powder. Goats milke
cureth the hardneſſe and ſwelling of the ſpleene, eſpecially if the goats beeing kept from meat
two daies, were the third day fed with Ivie; of which milke the patient muſt drinke three dayes
togither, and forbeare all other food: and yet milke other-whiles is contrarie to thoſe who bee
given to head-ach, ſubject to the debilitie of the liver, and the oppilation of the ſpleene; to ſuch K
as have the ague, occaſioned by ſome infirmitie of the ſinews; or be troubled with dizzineſſe, with
the murre, poſe, and ſtuffing in the head; with the cough alſo, and bleared eies; unleſſe it be given
as a purgation. Sowes milke is of all other moſt excellent for the inordinat deſire to the ſtoole,
and ſtreining thereupon without doing any thing; for the bloudie flix alſo, and the phthyſick or
conſumption of the lungs. And ſome authors there be, who affirme, that it is moſt holeſome
for a woman to drinke in any of the afore-named infirmities.

Of Cheeſe, and the ſundrie kinds thereof, I have ſpoken ſufficiently in that diſcourſe where-
in I treated of Vdders, and the ſeverall parts or members of living creatures. And verely *Seſtius*
attributeth the ſame effects to the cheeſe made of mares milke, as hee doth to that which is ga-
thered of cow-milke: that kind of cheeſe hee calleth Hippace. Generally, all cheeſe unſalted, L
that is to ſay, freſh and greene, is good for the ſtomacke. Old cheeſe ſtoppeth a laske, abateth
flesh and maketh the bodie leane, yea and is * hurtfull to the ſtomack. In Summer, all ſalt meats
take downe thoſe that be corpulent, whereas ſoft and tender viands doe feed and nouriſh the bo-
die. Freſh cheeſe applied with honey, reduceth the skin which is blacke and blew by reaſon of
ſtripes, to the freſh and naturall colour againe. * Old cheeſe maketh the bodie coſtife, and aſ-
ſuageth the torments of the bellie, if it bee made into troſches, and thoſe ſodden in ſome ſtyp-
ticke or auſtere wine, and afterwards fried in a pan againe with honey, and ſo applied. There is a
kind of rotten and putrified cheeſe, which the Greeks call Sapron: the ſame being punned with
ſalt and drie Servoiſes, and ſo given in wine to drinke, cureth the flux of the belly cauſed by the
infirmitie of the ſtomacke. The cheeſe made of goats milke, ſtamped into a cataplaſme and ſo M
applied, healeth the carbuncles engendred about the privie parts: ſo doth the foure cheeſe alſo
with oxymell. The ſame reduced into a liniment with oile, taketh away all ſpots in the skin, if the
bodie be therewith annointed in a ſtouph or hot-houſe.

As touching Butyr, it is made likewiſe of milke, and among barbarous nations is held for the

daintieſt

* *Sulphur*: I marveile hereat, conſidering that brimſton may be taken inwardly with ſafetie. I ſuppoſe therfore, that for θεῖον, which is *Solani manicon, id eſt*, deadly dwale, (a peſtiferous and venomous hearb) he read θεῖον, *i.* brimſtone, in the author whom he followed.

* *Inutiliores*: ex Dioſc. κακοστόμαχοι.

* *Venus.*

A daintieſt meat, and which doth diſtinguiſh the * rich and better ſort from the poore commons. The milke of kine yeeldeth moſt Butyr, whereupon it tooke that name: but the fatteſt Butyr is made of Ewes milke. Alſo there is a kind of Butyr gathered of Ewes milke: but in Winter the milke ought to be heated: whereas in Summer time there needs no more to doe but to preſſe it forth from the milke after much ſhaking & often agitation in certain long veſſels (called cherns) having in the very mouth, a little narrow hole to receive aire and give vent to that within, or elſe otherwhiles ſtopped cloſe, and bound up with ſome cloth. Now in the cherning, they uſe to put thereto a little water, to the end that the milke may ſoure the ſooner. After this beating and working of the milke, the thickeſt part [which is Butyr] floteth aloft, and is naturally of an oilie ſubſtance. The reſt they uſe to boile in certaine pans, & that which ſwimmeth above, they take from
B the other, & putting ſalt to it, they call it Oxygala. *Butyr the ſtronger ſent or ſmack that it hath, the better it is eſteemed to be. And in very truth, ſtale Butyr that hath been long kept, is mingled in many compoſitions: for by nature it is *aſtringent, emollitive, incarnative, and mundificative. Moreover, there is another way to make Oxygala, namely, to put ſoure milke into the freſh and ſweet which you would have to be ſoure, and this kind of cherne-milke, ſoure-milke or ſulli-milk, call it what you will, is thought to be moſt holeſome for the ſtomacke. But the properties and effects thereof I will ſet downe in another place.

Among the medicinable parts which be common to all living creatures, their fat deſerveth greateſt commendation: but eſpecially ſwines greaſe, which in old time they uſed with great ceremonie and religion. Certes, even at this day there is a ſolemne ceremonie, that the bride new-
C ly wedded, as ſhe entreth into her husbands houſe, ſhould ſtrike the ſide poſts therwith for good lucke ſake. Hogs lard or greaſe may be kept two manner of waies, either with ſalt, or as it is of it ſelfe unſalted: and indeed, the older the better. The *Greekes in their bookes called it Axungia. But that there ſhould be ſuch ſtrength in ſwines greaſe, it is no marvell: for the reaſon is plaine, becauſe it is a beaſt that feedeth much of hearbe roots. Which is the cauſe alſo that their dung is much uſed for a number of purpoſes. And therefore take my words thus, that I mean no other ſwine but ſuch as * feed and root in the field: among which, the female, eſpecially a guelt that never farrowed, is more effectuall than a [tame] bore, barrow hog, or a breeding ſow. But the greaſe and dung both, of the wild bore, is preferred before all. Swines greaſe then is employed to mollifie, to heat, to diſcuſſe and mundifie. And ſome Phyſicians there bee who preſcribe for the
D gout an ointment made of it, with gooſe greaſe, buls tallow, and the greaſie ſweat of wooll called Oeſypus. But in caſe the paine continue ſtill, they give direction to uſe it with wax, myrtle, roſin, and pitch. Hogs greaſe alone unſalted and ſimple as it is, healeth burns & ſcaldings, yea, though one were ſcorched and ſendged with the ſnow. It cureth alſo kibed heeles, if it bee tempered with the aſhes of burnt Barley and gall nuts pulverized, of each a like quantitie, and ſo reduced into a ſalve. Alſo it is good to annoint merigals therewith, namely, when one part of the bodie is fretted and chafed againſt another: likewiſe it refreſheth thoſe that bee wearie and tired with much travell: for an old cough, ſeeth of freſh hogs greaſe, that is ſweet, the quantitie of three ounces in as many cyaths of wine, putting honey thereto, and let the patient drinke it. Old ſeame alſo that is tried and kept unſalted, made into pils and taken inwardly, cureth the phthiſicke and conſumption
E of the lungs. For ſurely if it have taken ſalt once, there is no uſe thereof, unleſſe it be to mundifie and cleanſe, or els before the part is exulcerat. Some there bee who ordaine to ſeeth hogs lard & honey, of each three ounces, in three cyaths of wine, for a medicine to cure the conſumption of the lungs: with this charge, that the fift day after the patient take a quantitie of tarre in a rere egge, having his ſide, breaſt, and ſhoulders well ſwaddled before and emplaſtered with the ſaid compoſition: for ſo forcible it is, that if a plaſtre thereof bee but bound to the knees, the very ſent thereof will come up to the mouth, and cauſe a kind of ſalivation, whereby the patient ſhall ſeeme to ſpit it up againe. The greaſe of a yong guelt which never had pigs, is a very proſper medicine for women, to make their skin ſupple & even without wrinckles. But any hogs ſeame tempered with the beſt tallow or ſuet, to the quantitie of a third part, and ſome pitch, all melted
F together, and made ſomewhat hote, is ſoveraigne for ſcabs. Swines greaſe that is pure and unſalted, if it be put up beneath in manner of a collyrie or peſſarie, giveth comfort to the infant within the mothers wombe, which otherwiſe would have beene readie to ſlip forth before time, and proove an abortive fruit. The ſame being tempered with ceruſſe or litharge of ſilver, into a ſalve, and ſo applied, reduceth any skars to the naturall colour of the other skin about them. But with brim-

* Either for that the rich onely are allowed to feed upon Butyr, or becauſe they have plentie thereof, and raiſe a yearely revenue for that commoditie, whereas the reſt can ſpare none from their owne bellies.

* *Quo magis virus reſipit.* Some would amend this place, and for [*magis*] put in [*minus*] in a contrary ſence: but I ſuppoſe he writeth in regard of barbarous people, who make more account of ſuch ranke Butyr: like as the uncivile Iriſh in theſe daies.

* *Naturam eius adſtringere,* ſome read *digerere, i.* it is digeſtive.

* And yet it is a Latine name of *axis* & *ungo*: becauſe they uſed to greaſe axeltrees therwith.

* Not thoſe that be franke-fed or kept in ſtie.

brimſtone it cureth the raggedneſſe of the nailes : it ſtaieth likewiſe the haire of the head which G
is given to ſhed : alſo if it be mixed with a fourth part of gall nuts, it healeth the ulcers in a womans head: but if it bee well ſmoaked, it helpeth to preſerve the haires of the eyelids. An ounce weight thereof boiled in one hemine of old wine, untill there bee three ounces and no more of the whole remaining, is given (an ounce at once) to thoſe who are in a phthyſick. Some appoint a little honey to be put thereto. The ſame together with Quicke lime reduced into a liniment, is ſingular for the biles and impoſtumes called Pani, as alſo for fellons and the hard tumors of womens paps: it ſerveth beſides to cure inward ruptures and convulſions, ſpaſmes, crampes, and diſlocations. Being applied with white Ellebore, it healeth cornes, agnels, fiſſures, chaps, and calloſities. But incorporat with the pouder of a ſalters pot-ſhard, it healeth the ſwelling impoſtumes
behind the eares, as alſo the wens called the kings evill, beeing ordered in like manner. If the bo- H
die be well rubbed and annointed therewith in the baine or hot houſe, it taketh away all itch, red pimples and wheales riſing in the skin. Moreover, prepared after another ſort, to wit, with old oile together with the ſtone called by the Greekes Sarcophagus, beaten to pouder, adding thereto the hearbe Cinquefoile ſtamped in wine either with Quicke lime or with aſhes, and ſo reduced into a liniment, it is very good for thoſe that bee troubled with the gout. Thereof alſo is made a ſingular plaſtre againſt inflammations, in this wiſe, Take of the ſaid greaſe the weight of fourſcore and five pound, of white litharge of ſilver one hundred pound weight, mix them both together. As for Bores greaſe, if there be a liniment made of it and roſin, it is thought to be excellent good for to annoint therewith ulcers that bee corroſive and given to ſpread farther. [In old time men
uſed it moſt about the axeltrees of their carts and waggons, annointing them therewith, that the I
wheeles might turne about more eaſily: whereupon it tooke the name Axungia.] And beeing employed in this manner, it ſerveth for a medicine to cure the ulcers of the ſeat and privie members ſerving to generation, by reaſon that it is mixed and coloured with the ruſt of the yron incorporat into it. The auncient Phyſicians made moſt account alwaies of the ſaid hogs greaſe, by it ſelfe, which was plucked from the kidneies; for after it was cleanſed from the ſtrings, veines, and skins, they waſhed it often and rubbed it well in raine water; which done, they ſod it in new earthen pots, ſhifting it out of one into another many times; and beeing thus tried and clarified, they kept it for their uſe. Howbeit, all are agreed, that when it hath taken ſalt, it is a greater emollitive, it heateth alſo, diſcuſſeth and reſolveth more: yea, and being waſhed in wine, it is much better than otherwiſe.

As touching the fat or greaſe of a Wolfe, *Maſſurius* writeth, that in old time it was eſteemed K
before any other, and had the price above all. And hee ſaith, that new wedded wives were woont upon their mariage day to annoint the ſide poſts of their husbands houſes therewith at their firſt entrance, to the end that no charmes, witchcrafts, and ſorceries might have power to enter in. Thus much of greaſe. Looke what vertue greaſe hath, the ſame, bee ſure, is the ſuet and tallow endued with which commeth from thoſe beaſts that chew cud: and although it may be handled and dreſſed otherwiſe, yet in force it is nothing inferior. But what tallow ſoever it be, the beſt way of preparing it, is after the skins or veines bee rid away, to waſh it firſt either in ſea water or ſalt brine, and then within a while to ſtampe it in a morter, eftſoones ſprinckling it with ſeawater: after which, it ought to be ſodden in many waters, untill it have loſt all the ſavour and rank taſt that L
it had: and then at laſt by ſetting it in the Sun continually, it will bee reduced to a perfect whiteneſſe. Moreover, this is to be noted, that the beſt ſuet is that which groweth about the kidneies. But ſay that old tallow is called for, and to be uſed in any cure, it ought firſt to be melted: and then anon to bee well and often waſhed in freſh cold waters; which done, it muſt bee liquified a ſecond time, caſting and pouring thereupon eftſoones the beſt odoriferous wine that may bee gotten: after which manner they uſe to ſeeth it againe and againe, and never give over, untill the ranke ſmell and ſent thereof be cleane gone: And verely many are of opinion, that particularly the fat of Buls, Lions, Panthers, and Cammels ought thus to bee ordered and prepared. As for the uſes and properties of theſe Pomonades, I will treat thereof in convenient place.

Concerning marrow, it is a thing common to all creatures, like as the fat aboveſaid. All the M
kinds thereof are emollitive and incarnative; they drie alſo and *heat the bodie. The beſt marrow ſimplie is that of Deere, as well red as fallow: next to it in goodneſſe is Calves marrow: and then in a third ranke follow Kids and Goats marrow. Prepared they ought to bee and dreſſed, before Autumne, when they be new and freſh waſhed, & dried in the ſhaddow. But afterwards they muſt

*If they come, from beaſts of hot nature: for otherwiſe they be temperat.

be

A be melted againe and run through a fine ſercer or preſſed through linnen ſtrainers, which done, they ſhould be put up in earthen pots, and ſet in a cold place.

But of all thoſe things which are generally to be found in every living creature, the gall is that which is of greateſt efficacie in operation: for power it hath naturally to heat, bite, cut, draw, diſcuſſe, and reſolve. The gall of ſmaller beaſts is taken to be more ſubtile and penetrative than that of the greater, & therefore ſuppoſed to be the better for to go into eyeſalves. Buls gall is thought to have a ſpeciall facultie above all others, principally in ſetting a golden colour upon skins, and braſſe. What gall ſoever it be, in the preparation thereof for any uſe, regard muſt bee had, that it be taken freſh and new; and then the orifice of the burſe or bag wherein it is contained, ought to be tied faſt with a good round packthred; thus being bound up cloſe, it muſt be caſt into boiling
B water, and there remaine halfe an hour; within a while after, ſo ſoon as it is dried (out of the Sun) it ought to be preſerved and kept in honey. The gall of horſes only is utterly condemned, and reputed as a very poyſon: which is the cauſe that the arch-Flamin or principall ſacrificer is forbidden by law expreſſely to touch an horſe, notwithſtanding that in Rome it is an ordinary thing to ſacrifice even horſes publickely: And not their gall alone but alſo their bloud, is corroſive by nature and putrifactive. The bloud of Mares likewiſe, unleſſe they bee ſuch as were never covered nor bare foles, doth corrode: in which reſpect it is good to eat away the ſcurfe about the brims of ſores and ulcers. And verely *Buls bloud freſh running out of the bodie, is reckoned no better than venome: and yet I muſt except Ægira, a cittie in Achaia, where the Prieſtreſſe of the god-
5 deſſe *Ops*, at what time as ſhe is to propheſie and foretell things to come, uſeth by drinking Buls
C bloud to prepare her ſelfe before that ſhee goeth downe into the vault or ſhrouds out of which ſhe delivereth her propheſies: ſo forcible is that Sympathie, whereof wee ſpeake ſo much, that otherwhiles it is occaſioned either by a religious opinion and devotion in mens minds, or els by the nature of ſome place. *Druſus* ſometimes a Tribune of the Commons in Rome, dranke (as it is reported) Goats bloud, to make himſelfe looke pale & *wan in the face, at what time as he ment to charge *Q. Capio* his enemie with giving him poyſon. And verely, the bloud of a Bucke goat is
, ſo ſtrong, that there is not any thing in the world will either ſharpen the edge of any yron tooles
2 ſooner, or harden the ſame when it is keene, than it. And as for the ruggedneſſe of any blade, it
3 will take it away more effectually and polliſh it better than the very file. Conſidering then this diverſitie which is ſeene in the bloud of beaſts, I cannot write thereof in ſuch generall tearmes as
D of a thing indifferently common to every one of them, but I muſt be forced to ſpeak particularly of their ſeverall effects. In which regard I will treat reſpectively of beaſts, according as they doe yeeld remedies againſt this or that maladie: and firſt as touching thoſe which are adverſe unto ſerpents.

To begin then with Stags and Hinds: no man there is ſo ignorant but hee knoweth, that they plague ſerpents to the very death, for they plucke them forth of their holes, and eat them when they have done. And not onely whiles they be alive doe they war againſt ſerpents with the breath of their noſthrils, but alſo when they be dead, every member and peece of their bodie is contrarie unto them. Burne a peece of an Harts horne, you ſhall ſee how the ſmoake and ſmell therof will chaſe away ſerpents, as I have obſerved heretofore: and yet they ſay that the perfume of the
E bones which are about the throat of a Stag, hath a contrary property, to gather them together. Let a man lay under him Stags skins in ſtead of a mattrace, he ſhall ſleepe ſecurely, without any feare that ſerpents will approch to do him harme. The rennet in their maw, or the rede it ſelfe, if it be drunke with vinegre, is a ſoveraigne antidot againſt their venomous ſting: and looke what day one doe but handle it, he ſhall bee ſure and ſafe from any daunger by them. The genetoirs of a Stag kept untill they be drie, like as the pizzle alſo made into pouder and taken in wine, is a ſingular countrepoyſon, reſiſting the venome of ſerpents. Even as the rim of the paunch, which is called in Latine Centipellio. Whoſoever have about them ſo much as the tooth of an Hart, or be annointed with the marrow or ſuet of a Stag, Bucke, or Hind-calfe, need not to feare any ſerpents, for they will flie from them. But above all remedies, there is none like to the
F rennet of a Fawne or Hindcalfe, ſuch a one eſpecially as was ripped out of the dams bellie, as I have ſhewed heretofore. If together with Deeres bloud there be burned the hearbe Dragon, baſtard Marjaram, and Orchanet, in a fire made with Lentiske wood, ſerpents (by report) will gather round together into an heape: Take away the ſame bloud and put into the fire the root of *Pyre-
thrum, they will ſcatter aſunder againe.

Themiſtocles therewith poyſoned himſelfe.

*i. *Tellus*, or *Terra* the earth

Invidia, for *Livor*.

*i. Pelitarie of Spaine.

I read

I read in Greeke writers of a certaine beaſt leſſe than a Stag, but like in haire, called Ophion: G
which folke ſay is wont to be found onely in the Iſle Sardinia. But I ſuppoſe that the race of them is utterly extinct and gone. Wherefore I will forbeare to write of the medicinable properties reported by that beaſt.

Chap. X.

The medicines (againſt Serpents) found in the wild Bore, in Goats, and wild horſes. Alſo of other remedies which diverſe beaſts doe yeeld againſt all diſeaſes.

THe braines of a wild Bore is highly commended againſt the wing and venome of ſerpents. H
So is the bloud likewiſe. Semblably is the liver kept and preſerved long with Rue, if the ſame be drunke in wine. In like manner the fat of the wild Bore incorporat with honey and roſin. Alſo the liver of a tame Bore being cleanſed from the filaments and ſtrings therein, taken to the weight of foure oboli, or the very braines drunke in wine.

If a man burne the horne or haire of Goats, the fume thereof driveth away ſerpents, as it is commonly ſaid: and the aſhes that come thereof either drunk inwardly or applied in a liniment without, are of great force againſt their ſtings. Moreover, a draught of Goats milke taken with the grape of the vine Taminia, or of their urine drunke with ſquilliticke vinegre. Furthermore, it is ſaid, that cheeſe made of Goats milke together with Origan uſed in a cataplaſme, or their tallow incorporat with wax, worketh the like effect. A thouſand medicines beſides are reported to I
bee drawne from this beaſt, as ſhall hereafter appeare: whereat for mine owne part I much marvell, conſidering, it is commonly ſaid that he is never out of a feaver. The wild of this kind doe affourd medicines more effectuall than the tame, and thoſe as I have ſaid multiplie exceedingly. As for the Bucks or male Goats, they have medicinable properties apart by themſelves. And *Democritus* ſaith, That the Bucke which the dam bare alone, is of greater efficacie than any other: who affirmeth moreover, that it is very good to annoint the place ſtung with ſerpents, with Goats dung ſodden in vinegre: alſo with the aſhes of the ſaid dung freſh made, and tempered with wine into a liniment. In ſumme, as many as hardly are cured of ſerpents ſtings, recover therof paſſing well, if they ordinarily haunt Goat-pens and ſtals where they be kept. But ſuch as would have a
more ſpeedie and aſſured cure, take the paunch cut out of a Goat newly killed, together with the K
dung found therein, and preſently bind the ſame faſt to the place affected, ſo ſoone as they bee ſtung. Others perfume the fleſh newly hurt, with Kids hair burnt: and with the ſame ſmoke chaſe away ſerpents: they uſe alſo to applie their skin newly flaied, to the wound: like as the fleſh and dung of a horſe that lieth out and feedeth abroad in the field: the rennet likewiſe of an Hare in vinegre againſt the pricke of a ſcorpion and the venomous tooth of an hardiſhrew. Moreover, it is ſaid, that as many as rub and annoint their bodies with Hares runnet, need not feare their ſtinging. If any be hurt by a ſcorpion, Goats dung helpeth them; but the better, if it bee boiled in vinegre: and in caſe one be poyſoned with ſwallowing downe thoſe venomous flies called Bupreſtes, he ſhall find great helpe by eating lard and drinking the broth or decoction thereof. Furthermore, if a man round an aſſe in the eare, and ſay cloſely, That hee is wounded by a ſcorpion, L
the paine and grievance thereof will immediatly paſſe away: yea and any venomous thing whatſoever, will flie from the fume of his lungs as it burneth: alſo it is good for thoſe who are ſtung by ſcorpions, to be perfumed with the ſmoake of calves dung. If a man bee wounded by the biting of a mad dog, ſome there be who cut round about the place to the very quick, laying therto the raw fleſh of a calfe, and then give the patient to drinke the broth of the ſaid fleſh boiled, or elſe hoggs greaſe ſtamped with quicke-lime. Others highly praiſe the liver of a bucke-goat, affirming that if it be once applied, hee ſhall not fall into that ſymptome of hydrophobie or fearing water, incident to thoſe that be bitten with a mad dog. They commend alſo a liniment made of goats dung and wine or honey tempered togither: like as the decoction of a grey or badger, of a cuckow and a ſwallow, taken in drinke. For the biting of other beaſts, it is an ordinarie practiſe M
to lay unto the ſore, drie cheeſe made of goats milk, togither with origan, but they give direction to drink the ſame in ſome convenient liquor. In caſe one be bitten by a mans tooth, they preſcribe boeufe ſodden and applied; howbeit the fleſh of a calfe is more effectuall; with this charge, That this cataplaſme bee not remooved before the fift day. It is a common ſaying, that the muffle or

ſnout

A ſnout of a Wolfe kept long dried, is a countercharme againſt all witchcraft and ſorcerie; which is the reaſon that they uſually ſet it upon gates of countrey fermes. The ſame force the very skin is thought to have which is flaied whole of it ſelfe, without any fleſh, from the nape of the necke. And in truth, over and above the properties which I have reported alreadie of this beaſt, of ſuch power and vertue it is; that if horſes chaunce to tread in the tracts of a Wolfe, their feet will bee immediately benummed and aſtonied. Alſo their lard is a remedie for thoſe who are empoyſoned by drinking quick-ſilver. Aſſes milke if it be drunke, doth dull and mortifie the force of any poyſon: but more particularly, if any have taken Henbane, the viſcous gum of the hearbe Chamæleon, Hemlocke, the ſea-Hare, the juice of Carpathum, the poyſon Pharicum, or Dorycnium: Alſo in caſe that cruddled milke have done harm to any: for ſurely it is no better than poy-
B ſon, eſpecially the firſt beeſtings, if it quaile and cruddle in the ſtomack. To conclude, Aſſes milke hath many other medicinable properties which wee will ſpeake of hereafter. But remember alwaies to uſe this milke while it is freſh and new drawne out of the udder, or els not long after, and then it muſt be warmed: for there is not any milke that ſooner looſeth the vertue. Moreover, the bones of an aſſe well broken, bruiſed, and ſodden, are given for a countrepoyſon againſt the venome of the ſea-Hare. And for all theſe purpoſes beforeſaid, the milke and bones of the wild Aſſes be thought more effectuall.

As touching wild horſes, the Greekes have written nothing, becauſe throughout all Greece there are none of them to be ſeene. Howbeit, whatſoever medicinable vertues bee attributed to horſes, the ſame we muſt think more forcible in the wild than in others. Neither had the Greeks
C any experience of thoſe Neat or Buffles called Vri and Biſontes: & yet the forreſt of India be full of wild buls & kine. Now by good reaſon and proportion, we are to thinke, that whatſoever commeth from them, is more availeable in Phyſicke, than from the tame of that kind. And verely, Cow milke is ſaid to bee a generall countrepoyſon, able to kill any of thoſe venomes abovenamed. Over and beſides, if the dangerous Lillie called Ephemerum Colchicum, be taken inwardly and ſetled in the ſtomacke, or if the greene flies Cantharides have been given in drink, the ſaid milke will ſend up all againe by vomit. And as for the Cantharides, the broth of Goats fleſh will doe the like. Againſt thoſe corroſive poyſons which kill by exulceration, the tallow of a Calfe or any Bœufe, is a ſoveraigne medicine. As for the daunger that commeth by drinking Horſe-lea-
ches, butyr made of Cows milke, is a ſingular remedie, if it be taken with vinegre, heat with a gad
D of ſteele. The ſame alone without any other thing is a good countrepoyſon, for if oile be wanting, butter may ſerve the turn as well. Being joined with honey, it healeth the ſores occaſioned by the biting of the Porcelets called Multipedæ. The broth made of their tripes, if it bee drunke, is thought to kill any poyſon abovenamed: and beſides, the Aconite and Hemlocke: ſo doth the ſuet of a Calfe. Greene cheeſe made of Goats milke, is good for them that have drunke the venomous viſcoſitie iſſuing out of the hearb Chamæleon, called Ixias: but their milke is a remedie againſt the flies Cantharides and the venomous hearbe Ephemerum, if it be drunke with the grape Taminia. Goats bloud ſodden together with the marrow, is taken againſt the poyſons called Toxica: and Kids bloud againſt the reſt. The rennet found in the maw of a Kid, hath a peculiar vertue to mortifie the venome of the foreſaid viſcous gum Ixia, as alſo of the hearb it ſelfe, Cha-
E mæleon the white, yea, and Buls bloud: for which the rennet of an Hare with vinegre, is a ſingular defenſative. Againſt the venomous Raie or Puffen called Paſtinaca Marina: the pricke or ſting alſo of any ſea-fiſh, the ſaid rendles of an Hare, Kid, or Lambe, is a ſingular antidot, taken to the weight of one dram in wine. As for the rennet of an Hare, it is one of the ordinary ingredients that goe to the compoſition of all preſervatives and countrepoyſons.

There is a kind of Butterflie that uſeth to flie about candles as they are burning, which is reckoned among poyſons. The adverſative remedie againſt it, is a Goats liver: like as their gall is ſoveraigne againſt any venomous drinkes made of the ruſticke weazill.

F

Chap. xi.

Receits and remedies for many kinds of maladies, taken from ſundrie beaſts.

BVt now will I return to the remedies appropriat to diſeaſes reſpective to the particular members of the bodie. And firſt to begin at the head: Beares greaſe mixed with Ladanum, and that kind of Maidenhaire which is called Adiantum, retaineth the haire of the head which

is

is given to fall off: alſo the places that be alreadie bare, it repleniſheth againwith new haire. The G
ſame beeing incorporat with the fungous excreſcence growing about the candle ſnuffe, as alſo with the ſoot found ſticking to the ſockets of lampes and candleſtickes, cauſeth the haire of the eyelids to come thicke. Mixed with wine, it is good againſt the skurfe and dandruffe among the haires: for which purpoſe ſerveth the aſhes of Harts-horn burnt and applied with wine: the ſame alſo preſerveth the haire from breeding lice and nits. Likewiſe, Goats gall mixed with Fullers
*Creta Cimolia. *earth and vinegre, if the head be waſhed withall, ſo as the haires may drie againe by little and little. Semblably, the gall of *Bucke-goats tempered with Buls ſtale, killeth lice. Now if the ſaid gall
* Hircinum. Some read Scrofinum, i. Swines gall. be old, adde thereto brimſtone, and it ſcoureth beſides the dandruffe. It is thought, that the aſhes of an Aſſe pizzle will make the haire to grow thicke, and preſerve them from being grey, if the place bee firſt ſhaven and well rubbed therewith, or annointed with the liniment made of it and H
oile, punned together in a leaden morter. Likewiſe, the urine of a young Aſſe ſole is ſuppoſed to thicken the haire: but there would be mixed ſome Spikenard with this waſhing lie, to rectifie the ſtrong ſent of the ſaid urine. Buls gall mixed with Ægyptian Allum, ſerveth for a liniment to make the haire come againe, if the bald place be annointed therwith warme. As for the running skals of the head, there is not a better thing to cure them than Buls urine: ſo doth ſtale chamber lie, if there bee put to it Sowbread and Brimſtone: howbeit, Calves gall is of greater efficacie in this caſe, which if it be mingled with vinegre, and the head rubbed therewith hot, riddeth nits alſo. Calves ſuet ſtamped with ſalt and reduced into a liniment, is ſingular good for the ſores in the head. In theſe caſes great account is made of Fox greaſe, but eſpecially of their gall and dung, tempered with an equall portion of Senvie and ſo brought into an ointment. Take the pouder I
or aſhes of a Goats horne, but principally of the Bucke, put thereto ſal-nitre and the ſeed of Tamariſk: incorporat all with butter and oile into an unguent. It is wonderfull effectuall in keeping haire from ſhedding, ſo that the head be firſt ſhaven. Semblably, the aſhes of a dog burnt, and made into a liniment with oile, cauſeth the haire of the eyebrows to looke blacke. Goats milk by report taketh away nits. An ointment made with their dung and hony together, cauſeth the hair to grow thick, in places deſpoiled therof by occaſion of ſome diſeaſes. Likewiſe the aſhes of their houfs incorporat with pitch, keepe the haire on which is about to ſhed.

As touching the paine of the head, the aſhes of an Hare burnt, mixed with oile of Myrtles, allay the ſame: ſo doth the blowne water which is left in the trough after that a Bœuſe or Aſſe hath done drinking, if the patient take a draught of it. And if we may beleeve it, the genetall member K
of a hee-Fox, worne about the head in manner of a wreath, cureth the headach. The aſhes of a Harts horne brought into a liniment with vinegre, oile roſat or oile of Ireos, hath the like effect. For watering eyes there is a ſingular ointment made of Bœuſe tallow boiled together with oile. And the aſhes of Harts horne ſerveth by way of inunction to cure their aſperitie and roughnes: for which purpoſe the very tips and points of the knags are thought more effectuall. The excrements or dung of a Wolfe are good to annoint the eyes for the catarract. The ſame reduced into aſhes and made into a liniment with the beſt Atticke honey, is ſingular for thoſe whoſe ſight is dim and troubled, ſo that the eyes be annointed therewith: in which caſe, Beares gall is excellent. The greaſe of a wild Bore incorporat with oile roſat, is ſingular good for the bloudie fals or chilblanes called Epinyctides. L

The aſhes of an Aſſes houſe mixed with Aſſes milke, taketh away the cicatrices of the eyes, together with the filmes and pearles that trouble the ſight, if they be annointed therewith. The marrow of a Beefe taken forth of the right leg before, punned with ſoot, and ſo incorporat together in manner of a liniment, rectifieth the diſordered haires and other accidents of the eyelids and corners of the eyes. But for to have an excellent ſoot, proper to make a ſalve for to beautifie the eyes, it ought to bee gathered from a wieke or ſnuffe made of Papyr reed, and burning with Seſame oile, in ſuch ſort as the ſame may bee wiped away with a wing into a new earthen pot that never was uſed. And verely, this is a ſoveraigne ſoot to hinder the growth againe of haires after they be once plucked up from the eyebrowes. Of an Oxe gall tempered with the white of an egge, are made eye-ſalves reduced into rolles, which beeing diſſolved in water, ſerve to annoint M
the eyes for foure daies together. Calves ſuet with Gooſe greaſe and the juice of Baſill, is ſingular for all the accidents whereto the eyelids bee ſubject. The marrow of a Calfe, incorporat with equall weight of wax and common oile or oile roſat, together with an egge, maketh a ſoveraigne liniment for the Stian or any other hard ſwellings in the eyelids. The violent rheumes

that

A that fall into the eyes, are repreſſed and allayed with a cataplaſme of tender cheeſe made of goats milke ſoked in hot water, and ſo laid too: and if there be any tumor or ſwelling riſen by occaſion of ſuch a flux, it would bee applied with honey: and both of them, as well with ſwelling as without, ought to be fomented with warme whey. But ſay the eyes bee enflamed and bleered onely, without any * extraordinarie moiſture appearing in them, the little muſcles lying within the loines of a ſwine, roſted and afterwards punned to a cataplaſme, and ſo applied, doe quite rid away the ſame bleerednesse. It is commonly ſaid, that goats be never troubled with bleered eies, nor yet roe-bucks or does, by reaſon of certaine hearbs which they feed upon: and for that their ſight is as good by night as day, therefore certaine pills bee ordained for the infirmities of the eyes, made of their dung, enwrapped within wax, for to bee ſwallowed at the chaunge of the
B moone. Many there be who are of opinion, that ſuch as be dim ſighted and ſee little or nothing toward night (whome the Greeks call * Nyctalopes) are cured with goats blond, eſpecially the male: alſo with the liver of a goat ſodden in ſome auſtere or hard wine. Some give direction, to annoint the eyes all over with the gravie or dripping of the ſaid liver roſted, or els with the gall of a goat, and to feed of the ſaid fleſh; with this regard, That whiles the ſame is a ſeething, the eyes may receive the vapour and ſteeme thereof. And of this opinion they be, that the ſaid medicine will doe the better, if the goat bee of a bright ruddie colour. Moreover, they would have the eyes of the patient to be fomented with the vapour and fume that riſeth from the decoction of the liver whiles it boileth: but others there be, that preſcribe to take the ſmoake thereof as it roſteth or frieth. As for goats gall, there bee that uſe it many waies prepared; ſome with honey,
C againſt the fumoſities that trouble and dim the eye-ſight: others, with a third part of white Ellebore, for the pin and web: others againe with wine, againſt cicatrices, pearls, obſcuritie of ſight, filmes, and ſpots. But for the eye-lids, after the haire which pricked and offended the eye is pulled out, they applie it with the juice of beets, ſuffering the ſaid liniment to drie upon the eye-lids. If any tunicles of the eye bee broken, they take womans milke to apply unto it. In ſum, for all infirmities of the eyes whatſoever, they hold a goats gall which is old and hath been long kept, to be more ſoveraigne and effectuall in operation than any other. Neither doe they reject the dung of this beaſt, but repute a liniment made of it and honey, to be as good for waterie eyes, as the marow for the paine thereof: likewiſe the lungs of an hare. And verely the gall of an hare (as it is commonly reported) incorporat with cuit or hony, and ſo applied, helpeth thoſe
D that bee dim ſighted. Furthermore they ordaine, to rub and annoint the eyes againſt their inflammation and bleerednesse, either with woolves greace, or elſe with ſwines marrow. And no marveile, for they ſay, That whoſoever uſe to carrie about them in a bracelet a foxes tongue, ſhall never be troubled with ſore eyes.

For the paine and infirmities incident to the eares, there is not a better nor more excellent thing than the urine of a wild bore ſaved and kept in a glaſſe: the gall likewiſe of a wild bore or ſow, as alſo of a bœufe, mixed with Cicinie oile and oile Roſat, in equall quantitie, is a ſingular remedie: but eſpecially bulls gall, dropped into the ears warme with the juice of Porret; or elſe with honey, in caſe they bee impoſtumat within and runne with water. The ſame alone by it ſelfe warmed in the rind of a pomegranat, is excellent to take away the ranke and ſtrong ſavour of
E the ears: and if any part within bee broken, the ſaid gall inſtilled with womans milke, healeth it effectually. Some there be, who ordaine the ears to be well waſhed with it ſo prepared, for to remedie the difficultie and hardneſſe of hearing: others uſe to put into the ears wooll, waſhed before in hote water, and encloſe therewith a peece of a ſerpents ſlough, with vinegre: but if the deafeneſſe bee the greater, they infuſe the ſaid gall into the ears, tempered with myrrhe and rue, and ſo made hot all together in the pill of a pomegranat. Fat lard alſo is good for this purpoſe: and the greene dung of an aſſe inſtilled with oile roſat; provided alwaies, that all theſe medicines be warme when they bee dropped into the ears. But the ſome that a horſe doth froth, is better than all theſe: or the aſhes of horſe dung freſh made and burned, mixed with oile of roſes. In this caſe likewiſe are commended bœufe ſewet, gooſe greace, and freſh butyr. The urine of a goat
F or bull, yea and ſtale chamber-lie which Fullers uſe, made hote, and the vapour thereof received into the eare, at the narrow mouth or necke of a bottle, cureth the deafeneſſe thereof. Some put thereto a third part of vinegre, and a quantitie of the piſſe of a calfe which is yet a ſuckling and never taſted graſſe: yea and others there be, which put thereto the dung mixed with the gall of the ſaid calfe. The skin or ſlough alſo which ſnakes caſt off, is very good to be applied unto the

* Ἐκτροφθαλμία.

* *Nyctalopes*, are they alſo called, who ſee better in the night than by day: according as the word importeth.

eats,but they ought to be well chaufed and ſet into an heat before. Now are theſe medicines to G
be encloſed within wooll, and ſo applied. Moreover, calves tallow, with gooſe greace and the
juice of baſill, is good for the hearing: alſo calves marow incorporat togither with the powder
of cumin, and ſo powred into the eats. The ſlimie ſperme of a bore which paſſeth from the ſhap
of a ſow after ſhe is brimmed, if it may be gotten before it touch the ground,is ſingular for the
paine of the eats. If the eats be crackt and hang flagging downe, there is nothing better than
glew made of calves pizzles, if the ſame bee diſſolved in water. For other impediments of the
eats, the fat of foxes is verie good. In like manner, goats gall, with oile of roſes warme, or the
juice of leeks: or if there be any rupture within the eats, the ſaid gall muſt be applied with breſt-
milke. For thoſe who be hard of hearing, or have their eares running and ſuppurat within, it is
not amiſſe to drop into them a beaſts gall, with the urine of a ſhe-goat or of the male,it makes H
no matter. But theſe medicines howſoever they are to be uſed,are thought to be more effectuall
by farre, in caſe they were put in a goats horne, and ſo hung in the ſmoke for the ſpace of twentie
daies togither. Alſo there is great commendation of the rennet of an hare, if there be one third
part of a Romane denarius thereof, and halfe a denare weight of gum Sagapene, concorporat
in Aminean wine. As for the ſwelling impoſtumes behind the eats, bears greace repreſſeth and
keepeth them downe, if there bee a cerot made thereof, togither with the equall weight of wax
and bulls tallow: ſome there be who put Hypoquiſtis thereto: and butter alone is good to an-
noint them with, ſo that they were fomented before with the decoction of Fenigreeke.Howbeit,
of much better operation it would be, in caſe Nightſhade were added thereto. The ſtones of a
fox, bulls bloud alſo dried and reduced to powder, bee commended in this caſe. Moreover,the I
urine of a ſhee goat made warme,and ſo dropped into the eats: the dung likewiſe brought into
a liniment with hogs greace,is verie good.

To come now to the infirmities of the teeth: if they bee looſe and ſhake in their ſockets, the
aſhes of harts horne will ſettle them firme and faſt againe: if they ake, the ſame aſhes are verie
good to eaſe the paine, whether the teeth be rubbed or waſhed therewith. But ſome are of opi-
nion, that the powder of the ſaid horne not burnt at all,is farre better than the aſhes in theſe ca-
ſes: howbeit, there be dentifrices made both of the powder and alſo of the aſhes. Moreover,the
aſhes of a wolves head is thought to be a ſoveraigne remedie for the pains incident to the teeth.
Now it is well knowne, that among the excrements of a woolfe, there bee many times bones
found, which if they be hanged about the necke,arme,or other parts of the bodie,have the ſame K
effect. Likewiſe the cruddled rendles of an hare infuſed into the eare,are ſingular for the tooth-
ach: the aſhes alſo which come of the head burnt,is a prettie dentifrice for to rub the teeth with-
all: but if you put nard thereto,it doth correct and palliat a ſtinking breath. But ſome there be,
who chuſe rather to mingle therewith, the aſhes of mice and rats heads. There is found in the
ſide of a hares head a certaine * ſharpe bone like unto a needle; herewith,Phyſicians give coun-
ſell to ſcarrifie the teeth and let the gumbs bloud, for the tooth-ach. Take the bone of a beaſt,
ſet it on fire, and when it is red hote, hold it cloſe to the teeth that bee looſe and ake withall, it
will ſet them faſt againe: the ſame being reduced into aſhes,and tempered with myrrhe, is a pro-
per dentifrice to blaunch the teeth. The bonie ſubſtance likewiſe of hoggs cleys burnt and cal-
cined, is of the ſame force and operation: alſo the hollow hetchell or whirlebones of their hips, L
about which their hucklebones turne, worke the like effect if they be brought into aſhes. Well
knowne it is, that if the ſame bee conveighed downe by a horne into the throat of horſes and
ſuch like beaſts, they will cure the wringing torments of the botts that fret and gnaw them in
the bellies: and beeing burnt, they are ſingular good to confirme and faſten the teeth that bee
looſe and doe ſhake. Alſo if the teeth bee pained by occaſion of ſome blow given unto them,
aſſes milke helpeth them: ſo doe the teeth of the ſaid beaſt,if they be calcined and reduced in-
to aſhes. This infirmitie is helped alſo with the rough wert or corne of an horſe if it be infuſed
into the ears with oile: this bunch is called by the Greeks Lichen: and it is not that which is na-
med Hippomanes, whereof I have no purpoſe to ſpeake (conſidering it is a hurtfull and veno-
mous thing) but a certaine excreſcenſe growing about horſe knees, and above their houſes. M
Moreover, in the heart of an horſe there is found a bone, like for all the world to the eye-teeth
of a dog: this they hold to bee a verie ſoveraigne thing for to ſcarrifie the teeth when they ake.
Alſo if one take a tooth out of one of the chawles of a dead horſe,it will eaſe his owne that aketh,
ſo it bee correſpondent in place and number to that which is in paine. The ſperme that paſſeth

* βιλονοειδὴς χειρουσα.

from

A from the mature of a mare after ſhee hathbeen covered by a ſtallion, if the wicke of a candle or lampe be therewith beſmeared and ſet a burning, doth repreſent a moſt ſtraunge and monſtrous ſight of horſe heads, as *Anaxilaus* hath reported: even ſo will that alſo of the ſhee aſſe, make a ſhew and apparition of aſſe-heads. As for Hippomanes before-named, it is ſo ſtrong and forcible a venome, eſpecially to incite and ſtirre unto luſt, that being upon a time poured into the braſen mettall that was caſt into the forme and ſimilitude of a mare at Olympia, the ſtone-horſes which came neare unto the ſaid image, were ſet into ſuch a heat and ſo farre enraged, that they could not by any means bee held backe but they would needs cover the ſaid braſen mare. Moreover, the glew that carpenters and joyners uſe, cureth the tooth-ach, if the ſame be boiled in water, and the teeth annointed therewith; but the ſame within a little while after muſt be remoo-
B ved, and the mouth preſently waſhed with wine, wherein were ſodden the pill of ſweet pomegranats. Furthermore, if the teeth be ill affected, a collution made with goats milke, or bulls gall, is thought to be a remedie of great efficacie. Finally, the aſhes of the ankle-bones of a female goat whiles they be freſh and new, are counted an excellent dentifrice to whiten the teeth: ſo are the ſaid bones of all other foure-footed beaſts, reared and nouriſhed about a ferme houſe, if they be in like manner calcined: which I note but once for all, becauſe I would not repeat one thing ſo often.

Chap. xii.

C *Remedies obſerved out of the bodies of beaſts, for the accidents that befall to the viſage, necke, and breaſt.*

IT is thought generally, that the skin of the face may be made ſmooth and without wrinckles; tender and delicat, yea and be kept faire and white, with aſſes milke: for well knowne it is, that ſome daintie dames (forſooth) there bee, that keepe and maintaine daily in ordinarie to the number juſt of five hundred ſhee aſſes for this purpoſe: according to the firſt example of the Empreſſe *Poppæa*, wife to *Nero* the Emperour; for ſhee uſed commonly to bath in aſſes milke, and deviſed whole baines to ſwim therewith: and ever as ſhee rode in progreſſe, or remooved from place to place, ſhee had her cuirie of ſhee-aſſes in her traine attending upon her for no other
D intent, but onely to waſh and bath her bodie in their milke. As for the pimples and wheales that breake out in the face, if they bee annointed with butter, they will weare away and be gone; and the ſooner, if Ceruſſe or Spaniſh white bee tempered therewith: but pure butter alone without any thing elſe mingled with it, killeth any fretting humours in the face that be corroſive, if ſo be that preſently after the inunction, barley meale be caſt upon the place. The gleane of a cow having newly calved, taken whiles it is moiſt and ſo applied, is good for any ulcers of the viſage. There is another receit making for this purpoſe, which may ſeeme but a fantaſticall and fooliſh thing; howbeit, for to ſatisfie and pleaſe in ſome ſort, our fine dames that are deſirous of ſuch deviſes, I am content to ſet it downe: They ſay (forſooth) that the paſterne bones of a young white bulkin or ſteere, ſodden for the ſpace of fortie daies and nights togither, untill ſuch time as
E they be reſolved into the liquor, if the face be wet with a fine linnen cloth dipped in the ſaid decoction, it cauſeth the skin to looke cleare and white, and without any rivels or wrinkles; but the ſaid liniment muſt be kept all night to the face in manner of a maske. Moreover, they ſay, that bulls ſherne is an excellent complexion forſooth, to ſet a freſh roſat or vermilion colour in the ball of the cheeke: and the liniment Crocodilea, made of crocodiles ordure, doth it no better: but then they give order, that the face be waſhed with cold warer both before and after this dreſſing. The dung of a calfe tempered and wrought in ones hand with oile and gumme, is ſingular good to take away ſun-burning, or any thing whatſoever whereby the colour is decaied and loſt. As touching the ulcers and chaps appearing in the lips or face, the ſewet of a calfe, or beaſts tallow, incorporat with gooſe greace and the juice of baſill, maketh a ſingular pomandre to a-
F mend and rectifie thoſe defects and imperfections. There is another compoſition alſo for this purpoſe; to wit, calves ſewet and deers marrow mixed togither, with the leaves of the white Saint *Mary* thiſtle, punned all together and reduced into a liniment. The ſame operation hath any marow, though it be of a cow, and the broth of cow bœufe. The tettars and wild-fires breaking foorth about the mouth and noſe, there is not the like medicine againe to bee found, to kill and

extinguiſh, than a glew made of a calves genetoirs, diſſolved in vinegre with quicke brimſtone and mingled togither with a figg-tree braunch; with this charge, that when it is freſh made, the place affected be annointed twice a day therewith. This glew boiled in honey and vinegre, is ſingular for the leproſie: which diſeaſe, the liver alſo of a calfe applied hot, doth cure: like as goats gall healeth the foule white leprie called Elephantiaſis: but an ox gall and ſal-nitre mixed therewith taketh away the leprie and the filthie dandruffe appearing in the skin. The urine of an aſſe taken about the riſing of the Dog-ſtar, cleanſeth the face from all ſpots: ſo doth the gall as well of an aſſe as a bull, uſed alone by it ſelfe, after it hath been well broken and tempered in water, and the old skin of the face taken off; but then the patient muſt forbeare to goe abroad either into the ſunne or wind. The like effect hath bulls tallow or calves gall, incorporat with the ſeed of Savorie and the aſhes of an harts horne, if the ſame be burnt at the beginning of the Dog-daies. Aſſes greace is a ſoveraigne thing to reduce unto a freſh and native colour, any skarrs or places of the skin blemiſhed with the ſtooles remaining of ringworme, tettar, and leproſie. The gall of a bucke-goat incorporat with cheeſe, ſulphur vif, and the aſhes of a ſpunge, and brought to the conſiſtence and thickeneſſe of honey, taketh away moles and pimples. Some make choiſe rather of old galls which hath been long kept to uſe in this caſe, mingling therewith hot brans to the weight of one obolus, and foure times as much of hony; but firſt the ſaid ſpots and ſpecks ought to bee plied well with chauſing and rubbing. The ſewet of the ſame goat, tempered with Gith or Nigella ſeed, Brimſtone, and Floure-de-lis root, is verie effectuall for this purpoſe. Semblably, it is good for the chaps in the lips, if it be incorporat with gooſe greaſe, deeres marow, roſin, and unquencht lime. I find it recorded in ſome authours, that they who are given to have red pimples appearing in their face, are diſabled for exerciſing any ſacrifices belonging to Art magicke.

If the tonſils, throat, and wind-pipe, bee either enflamed or exulcerat, they find much eaſe by cow milke, or goats milke, ſo the patient gargarize therewith warme as it commeth new from the beaſt, or otherwiſe made warme againe afterwards: but goats milke is the better of the twain, if mallowes be ſodden therein, and a little ſalt. For bliſters in the tongue and throat, the broath made of tripes is verie good to be gargariſed: and more particularly, for the inflammations and ſores incident to the tonſils or almonds of the throat, the kidnies of a fox dried are ſingular, if they be beaten into powder and reduced into a liniment with honey. The gall of a bull or goat mixed with honey, ſerveth right well for the ſquinancie. The liver of a grey or badger tempered with water and made in manner of a collution, rectifieth a ſtrong and ſtinking breath: the cankers alſo and ſores in the mouth, are healed with butyr. If a thorne, fiſh bone, or any other ſuch thing ſticke in the throat, take the dung of a cat, rub & annoint the place well without-forth, the ſame (by report) will thereupon come up againe, or paſſe downeward. As for the ſwelling wens called the Kinds evill, either the gall of a bore doth ſcatter and diſpatch; or elſe of a bœufe, if the place affected bee annointed therewith warme: for hares rendles tempered with wine and put into a linnen cloath, is good to bee applied unto the ſame onely when they be ſore and run. The aſhes alſo of the houſe both of horſe and aſſe, incorporat with oile, water, and hote urine, into a liniment and ſo applied, doth reſolve them before they bee broken. Of the ſame effect is the aſhes of an oxe or cows clee, applied unto the place with water: as alſo their dung laid too verie hot with vinegre. In like manner goats ſewet with quicke-lime, or their dung ſodden in vinegre and the genetoirs of a fox. For this purpoſe, there is much good done with ſope: an invention deviſed by the French for to colour the haire of the head yellow: made it is of tallow and aſhes: the beſt of all other is that which they make of beech-wood aſhes and goats ſewet; and the ſame after two manner of wayes; either thicke and hard, or elſe liquid and ſoft: but the one as well as the other is verie much uſed in Germanie, and a great deale more indeed by men than women.

The cricks and pains in the necke, are much aſſuaged by rubbing the nape of the necke with butter or beares greace: if the ſame bee ſtarke and ſtiffe, there is nothing in the world better than beaſts tallow; the which, togither with oile, is verie good for the Kings evill before-ſaid. The painfull * crampe that draweth a man backe, ſo as hee cannot bow his head forward (which convulſion the Greeks name Opiſthotonos) is much eaſed by infuſing into the ears the urine of a ſhee goat, or with a liniment made with their dung and bulbe roots.

If the nailes bee bruiſed, it is paſſing good to tie about them the gall of any beaſt whatſoever.

As

* *Supinus & poſterganeum raptus. Aurelian.*

A As for the riſings and ſore excreſcences about their roots, bulls gall diſſolved in hot water, and ſo applied, eaſeth that grievance: ſome there be who put thereto brimſtone and alume, of ech a like weight.

Moreover, it is ſaid, that a wolves liver taken in a draught of wine warme, cureth the cough: alſo a bears gall mingled with honey: or the aſhes made of the uppermoſt tips of a beaſts horne: likewiſe the froth or ſlaver of an horſe mouth: and ſome ſay, that be the cough never ſo bad, it will make an end thereof in three daies drinking. Semblably, the lights of a ſtag, togither with the throat died in the ſmoke, and afterwards pulverized and brought into a loch or liquid electuarie, is good for the cough, to bee taken ordinarily everie day: and for this purpoſe, the lungs of the ſpitter in this kind of red deere, is thought to be more effectuall. In caſe a man ſpit bloud,
B the aſhes of harts is much commended: and the rendles of an hares maw taken in drinke to the weight of a third part of a denier, with Terra Samia and Myrtle wine, cureth it perfitly. The aſhes likewiſe of hares dung drunke in wine late in an evening, ſtayeth the cough which is buſie in the night ſeaſon. Alſo a perfume made with the haire of an hare, diſchargeth the lungs of thoſe tough and viſcous humours which ſticke unto them, and are not otherwiſe eaſily remooved. The purulent ulcers in breſt and lungs, remaining after a pleuriſie or peripneumonie: the ſtrong and ſtinking breath alſo proceeding from the lights, are cured moſt effectually with an electuarie made of butter, boiled with a like quantitie of Atticke honey, untill it looke reddiſh; if the patient take thereof everie morning the meaſure of one ligula or ſpoonfull: ſome in ſtead of honey, chuſe rather to put thereto the * roſin of the Larch tree. If one do reach or caſt up bloud, it
C is ſaid, that cows bloud, taken moderatly and with vinegre, is of great force and efficacie to ſtay the ſame: but to thinke that this is meant of bulls bloud, were great follie and raſhneſſe. Howbeit, the ſtrong glew that is made of a bulls skin, taken to the weight of three oboli in warme water, is ſoveraigne for an old infirmitie of reaching and fetching bloud upward.

* Which is our Turpentine.

Chap. XIII.

Receits for the paine of ſtomacke and loines: alſo for the infirmities of the reins.

D IF there bee an ulcer growne in the ſtomacke, drinke the milke of an aſſe or cow, and it will heale it. Stew a peece of bœufe in wine and vinegre among, the broth thereof is ſingular for the gnawing and fretting in the ſtomacke: The aſhes of an harts horne is verie good to drie up rheumes and catarrhes, that have taken a courſe thither. As for thoſe that caſt up bloud, the freſh bloud of a kid taken to the quantitie of three cyaths, with the like proportion of ſharpe vinegre, and ſo drunke as hote as may be: the rendles alſo of the ſaid kid drunke with vinegre, ſo as there be two third parts of the vinegre to one of the rundles, is a ſingular remedie for the ſaid infirmities.

For the griefe of the liver, cauſed by obſtructions, the liver of a wolfe dried and taken in honeyed wine, is a proper receit. So is the liver of an aſſe beeing dried and brought into powder with two parts of ſtone perſley, and ſo incorporat with three nut kernels and hony; which com-
E poſition, the patient muſt uſe to eat. In which caſe, goats bloud is higly commended, if it be prepared ſo as it may be taken with meat.

Moreover, it is ſaid, that for them who be ſhort winded, there is nothing ſo good as to drinke the bloud of wild horſes. In the next place to it, great account is made of aſſes milke warme, or ſodden togither with bulbe roots, ſo that the patient drinke the whey that commeth thereof, putting to three hemins of the bloud one cyath of white garden creſſes, infuſed firſt in water, and then tempered with honey. The liver alſo or lungs of a fox, taken in ſome groſſe wine like alegant: or a bears gall in water, doth open the wind-pipes ſtuffed with fleame, and giveth free libertie for the wind to goe and come.

Furthermore, bears greace is exceeding good for the paines in the reins of the backe, yea and
F for any place els that hath need of emollitives, in caſe it be well rubbed therewith. Alſo in theſe caſes, it is thought meet, to take the aſhes either of a bores or ſows dung which hath been long made, and therewith to ſpice a cup of wine.

But before I proceed any farther, it is to be noted, that magicians alſo have meddled with this part of phyſicke, and have deviſed ſtraunge medicines, drawne from the parts and members of

beasts. And first of all they would make us beleeve, that be a buck-goat never so much enraged, doe but stroke him by the beard, he will come into good order and be quiet againe: cut and lop the same off with a paire of sheers, he will not stray away nor depart to another flocke. But to returne to the griefe of the reins: the magicians add to the foresaid medicine, goats dung, which being put into a linnen cloth, and the same well greased, they give direction to hold in the hollow ball of the hand, as hot as may be endured; with this regard, that if the paine bee in the left side, this medicine be made in the right hand, and so contrariwise. Moreover, the dung or treddles which must serve this turne, they give order, that it be gathered and taken up with the point of a brasen needle or bodkin. Now the foresaid medicine must be held in the hand so long, untill the patient perceive that the vapour thereof doe pearce as far as the loins: which done, they appoint afterwards to annoint the head with the juice of leeks stamped: to rub the loines also with the said dung tempered with honey: giving counsell, to eat the stones also of an Hare, for to appease the same pain. As for those that be troubled with the Sciatica, they ordaine a cataplasme of ox or cow dung, to be laid upon the grieved place; but it ought first to be lapped within some leaves, and so made hote in the embres. For the paine in the kidnies, they give order to swallow downe the kidnies of an Hare raw, or at leastwise sodden, yet so, as the patient touch them not with his teeth. Over and besides, they doe say, that whosoever have about them the ankle-bone of an Hare, shall not be grieved with the belly ach. As touching the paine of the splene, the gall of a swine, be it Bore or Sow taken in drinke, or the ashes of Harts horne in vinegre, assuageth the same. But the most effectuall and soveraigne remedie of all other, is the milt of an asse which hath been long kept; for within one three daies the benefit thereof will be felt, and the patient shall find ease. Also, for the disease of the splene, they use to give in oxymell, the ordure of an asses fole, which first came from it after it was foled (and this dung the Syrians call Polea.) Furthermore, for this infirmitie the tongue of an horse which hath been kept drie a long time, given in wine, is a present remedie: and this is a secret which *Cæcilius Bion* reporteth that he learned of the Barbarians, whiles hee conversed among them. In like manner, a beasts milt whether it bee cow or ox, hath the same operation, if it be used in that manner: but say it be fresh and new taken out of the beast, then it ought to be either rosted or sodden, and so taken as meat. Over and besides, take twentie heads of garlick, pun them all, and after they be bruised, put them into a beasts bladder with a sextar of vinegre; apply the same to the region of the splene, it assuageth the pain. And if all be true that these magicians say, the milt of a calfe is singular good for the maladie of the splene; but then it must bee bought at the same price that the butcher setteth first upon it, without hucking and beating it lower for to have any thing abated; because in their opinion (so ceremonious they be) therein lieth a great matter. Now when it is thus bought, it would be slit through the length in two parts, and both peeces attached to the shirt of the patient; with this charge, That when he is about to put on his other cloaths and make himselfe readie, he suffer the said peeces to drop downe to his feet, and then take them up againe, and so drie them in the shadow: for in thus doing, the diseased splene of the sicke partie will likewise fall and settle downe, so as the patient shall sensibly perceive himselfe to be delivered of that infirmitie. Finally, the lungs of a Fox dried in the ashes and so drunke in water, is good for the spleene: as also the milt of a kid, applied to the grieved part accordingly.

Chap. xiiii.

For to stop a laske and knit the bellie: for the flux proceeding from the imbecilitie of the stomacke: for the dysenterie or bloudie flix: for the ventosities and inflation of the bellie: for ruptures: the straining upon the seege without doing any thing: for the worms in the guts, and for the cholique.

TO stay the running out and extraordinarie loosenesse of the belly, these medicines following be convenient: *Imprimis*, the bloud of a stag: *Item*, the ashes of an harts horne: the liver of a bore fresh and without any salt at all, taken in wine: likewise the liver of a sow rosted, or of a male goat sodden in one hemine of water: the crudled rennet in a hares maw, drunke in wine to the quantitie of a cich-pease; or in water, in case the patient have an ague. Some there be, who put gall nuts thereto; others content themselves with hares bloud alone sodden with milke. Also the ashes comming of horse dung drunke in water: the ashes of that part of an old bulls

A bulls horne which groweth next to the head, ſtrewed into a draught of water. In like manner, Goats bloud ſodden upon coales. A Goats skin or fell, haire and all boiled together, yeeldeth a decoction which is good in this caſe to be drunke.

Contrariwiſe, to looſe the belly: the runnet found in a Colts maw: the bloud of a female Goat, or els her marrow or liver, are thought convenient laxatives. *Item*, A plaſtre made with a Wolves gall, together with the juice of the wild Cucumber, and applied to the navill. Alſo a draught either of Mares or Goats milke, taken with ſalt and honey. The gall of a ſhee-Goat is good for this purpoſe, if it be taken with the juice of Sowbread and a little Allum. But ſome there be who think it better to put thereto ſalnitre and water. Buls gall ſtamped and incorporat with Wormewood, made into a round ball, and ſo put up in ſtead of a ſuppoſitorie, will give a ſtoole, and make the
B bodie ſoluble.

Butter eaten in any great quantitie, is good for thoſe who have a flux occaſioned by the weakneſſe of the ſtomacke, and a dyſenterie or bloudie flix: ſo is a Cowes liver: the aſhes of an Harts horne, taken to the quantitie of as much as three fingers will comprehend, in a draught of water: likewiſe the rennet of an Hare wrought in dough for to make bread: or if the patient doe void bloud withall, the ſame ought to be incorporat in parched Barley meale. The aſhes of a Bores, Sowes, or Hares dung, is good to ſpice a warme potion of wine in theſe infirmities. Moreover an ordinarie Veale broth, as it is commonly given, is counted one of the remedies for theſe kind of fluxes abovenamed, whether they come of feeble ſtomacke or exulcerat guts. But if the patient drinke Aſſes milke for this purpoſe, it will be the better, if honey be put thereto. Furthermore, the
C aſhes of an Aſſe dung taken in wine, is as effectuall in operation as the reſt, for both diſeaſes. As alſo the firſt ordure of the Aſſe fole, which we tearmed Polea in the former chapter. The cruds or rennet of an horſe fole maw, called by ſome Hippace, is ſoveraigne for ſuch laskes, yea, though the patient did ſhere bloud upon the ſtoole. The aſhes alſo of Horſe dung, and the pouder of Horſe teeth is ſaid to be ſingular: yea, and Calves milke ſodden and ſo drunke. But if the flux doe prove to be a dyſenterie, Phyſicians give adviſe to put thereto a little hony: if gripes come thick, they preſcribe the aſhes of Harts horne, or Buls gall tempered with Cumin ſeed: and the fleſhie ſubſtance of a Gourd, to be laid in manner of a cataplaſme to the navill. The tender cheeſe curd of Cowes milke clyſterized, is paſſing good both for the ſtomacke flux, and alſo for the bloudie flix. In like ſort the butter made of Cowes milke, taken to the quantitie of foure hemins with two
D ounces of right Terpentine, either in the decoction of Mallowes or oile of Roſes. The ſuet of a Calfe, or beaſts tallow, is likewiſe an ordinarie remedie in theſe caſes. But diverſe there bee who ſeeth the marrow forth as well of the one as the other, with meale, wax, and a little oile, yet ſo, as the broth be clear, that it may be ſupped off. Their marrow alſo is uſually incorporat in the paſte whereof bread is made, and ſo taken with great ſucceſſe. Goats milke ſodden untill the halfe bee conſumed, is reputed alſo a proper medicine. And in caſe the guts beſides be wrung and griped, there would be put therto a little unpreſſed wine of the firſt running, called Mere-gourte. Howbeit, ſome there be who thinke it ſufficient for to appeaſe the torments of the wombe, to drink Hares rennet but once in a draught of wine warme. But the wiſer ſort and thoſe that deale more warily, thinke it good withall to make a liniment of Goats bloud, incorporat with Barley meale and ro-
E ſin, and therewith to annoint the bellie. And they alſo adviſe their patients for any violent flux of the bellie whatſoever, to applie thereto ſoft cheeſe: but if the flux bee from the ſtomacke, or dyſentericall, they preſcribe old cheeſe to be grated and given to the patient in wine, with this proportion, that in three cyaths of wine there be a third part of cheeſe. Goats bloud boiled with this marrow, is ſingular good for the dyſenterie or bloudie flix. The liver of a female Goat roſted, is a ſoveraign medicine for the fluxions of the ſtomack, but it were better if the male Goats liver were taken in drinke after it had been ſodden in ſome greene and auſtere wine, or with oile of Myrtles reduced into a cataplaſme, and ſo laid to the navill. Some ſeeth the ſame in water, from ſix ſextars to one hemine, and put Rue thereto. Others roſt the milt of a Goat, male or female (it skilleth not) and uſe it for the ſame purpoſe, or els they take the ſuet of a Bucke goat with bread that hath
F ben baked on the hearth under the embers. But above all they hold, that the ſuet taken from the kidneies of a ſhee Goat, and ſo drunk alone by it ſelfe, is a ſingular remedie for theſe infirmities: but they enjoine the patient preſently thereupon to drinke a little cold water. Yet there be others who ordaine the ſame ſuet to bee boiled in water with fried Barley groats, Cumin, Dill, and Vinegre mixed all together. And they give order to ſuch as have the ſtomacke flux to annoint their

bellies

bellies with Goats dung ſodden with honey. And for both theſe fluxions, as well from the ſtomacke as the ulcer of the guts, they preſcribe the rennet of a Kid to the quantitie of a Beane for to be drunke in Myrtle wine: alſo a pudding made of the bloud thereof, which kind of meat wee call in Latine *Sanguiculus. Moreover for the dyſenterie, they ordaine to inject into the guts by a clyſtre Buls glue reſolved in hot water.

*i. a bludding.

For any ventoſities, Calves dung is holden to bee ſingular good for to reſolve them, if it bee ſodden in wine and the decoction thereof uſed. But if the guts be diſeaſed any waies, the rennet of red Deere is very effectuall, ſodden with Lentils and Beets, and ſo eaten with meat. Likewiſe, the aſhes of the haire of an Hare boiled with honey. Alſo to drinke Goats milke ſodden with Mallows and a little ſalt put thereto, is good for the ſaid infirmities: but if the rendles be mixed therewith, the operation will bee the better. Of the ſame vertue is Goats ſuet, taken in any warme ſupping; with this charge, that the patient drinke preſently upon it cold water. Moreover, it is ſaid, that the aſhes of a Kids haunch hath a wonderfull vertue to ſouder the rupture, whereby the guts are fallen downe. Likewiſe, Hares dung ſodden with honey, and taken every day to the quantitie of a Beane, is a medicine for a rupture, ſo ſoveraigne, that it hath been knowne to cure them who were paſt all hope of remedie. Much commended alſo is the decoction of a Goats head ſodden, haire and all together.

The diſeaſe called Teneſmos, which is a deſire to goe often to the ſtoole without doing any thing, is cured by drinking of Aſſes and Cowes milke.

All the ſort of wormes bred in the guts, the pouder of Harts horne taken in drink, doth expell.

There bee, as I ſaid before, certaine bones found among the excrements of a Wolfe, which if they bee hanged about the arme, doe cure the Collicke; if this regard were had before, that they never touched the ground. As for Polea (whereof I made mention before) which is the firſt ordure of an Aſſes fole, it is ſingular good in that caſe. Likewiſe the pouder of a Sows dung taken in the decoction of Rue ſodden in water, with Cumin, is ſingular for the Collicke. Finally, the aſhes of a young Harts horne while it is new come up and tender, incorporat with the ſhell fiſhes of Barbarie, ſtamped ſhels and all together, and ſo taken in a draught of wine, is highly commended for the paſſion of the collicke.

Chap. xv.

For the dolourous torments of the bladder: for the ſtone and gravell. The remedies for the infirmities of the members of generation, of the fundament and the ſhare.

THe urine of a Bore helpeth thoſe who be tormented with the paine in the bladder, and the ſtone: yea, and the very bladder of the Bore eaten as meat, is ſingular good in that reſpect. Howbeit, if the one and the other were permitted to bee conſected before in ſmoake, you ſhould ſee a greater operation. Now the ſaid bladder ought to be firſt ſodden & then eaten. And if a woman be troubled with the ſaid greefes, ſhe is to chuſe the bladder of a wild Sow. There bee found alſo in the livers of ſwine certaine little ſtones, or els hard calloſities like unto ſtones, and white of colour, ſuch as wee may ſee daily in our tame ſwine: which beeing beaten into pouder and drunke in wine, doe expell the ſtone and gravell within our bodies. And verely the Bore feeleth himſelfe ſo farre forth charged with his owne urine, that unleſſe he be delivered thereof before, he is not able to flie before the chaſe, but ſuffereth himſelfe to bee taken as if he were encloſed and faſt bound within net and toile: and they ſay that his urine doth burne him within. The kidneies of an Hare kept untill they be drie, then made into pouder & drunke in wine, do thruſt forth the ſtone. In the peſtle and gammond both of a ſwine, there be certain joint whirlebones as I have ſaid before, which if they bee ſodden, doe yeeld a broth that is very good for the eaſie paſſage of urine. Likewiſe, the reins of an Aſſe dried, pulverized, and given in pure wine of the grape, doe cure the diſeaſes of the bladder. The ſurots or rugged werts in horſe legs & the corns about their houſe called Lichenes, drunke either in ſimple wine or meath for the ſpace of 40 daies together, doe expell the ſtone and gravell engendred in the body. The aſhes alſo of an horſe houſe, taken in wine or water, is good in that caſe. In like manner Goats dung drunke in honied wine, is ſingular for thoſe accidents; but eſpecially that of the wild Shamois is much more effectuall. Moreover, the aſhes of Goats haire is thought to availe much in theſe diſeaſes.

As

A As touching the botches and carbuncles which ariſe in the privie members; the brains and bloud of a Bore or Sow are thought to be proper remedies for them. And ſay there be ſome cankerous or corroding ulcers in thoſe parts, the liver of a Bore or Swine burned in a fire made principally of Iuniper wood, together with the Papyr reed and Arſenicke, dooth heale the ſame: ſo doth the aſhes of their dung. Or els take a Cow or Oxe gall and Ægyptian Allum, wrought and incorporat together with *Myrrhe, to the conſiſtence of honey. Beets alſo ſodden, yea, and their flesh boiled in wine and ſo applied as a cataplaſme. In caſe they bee running ſores: the ſuet and marrow of a Calfe boiled in wine, or Goats tallow tempered with honey and the juice of the brier, are reputed to be ſoveraigne. Now if the ſaid ſores ſpread farther ſtill, it is ſaid, that their dung incorporat with honey or vinegre, doth much good: as alſo butter and nothing els ſimply appli-
B ed to the greeved place. If the cods doe ſwell, the ſuet of a Calfe made into a liniment, with ſalnitre put thereto, keepeth downe the tumor. Of the ſame operation and effect is the dung alſo of a Calfe boyled in vinegre.

*Some read *Muria*, i. in pickle or brine.

Such as cannot hold their urine, but that it paſſeth from them againſt their wils, find great helpe by eating of a Bores bladder roſted or broiled. And verely the aſhes of a Bores or Sowes cleyes, is ſingular good againſt the involuntarie ſhedding of urine, if a cup or drinke bee ſpiced therewith for the patient to take. Likewiſe, the bladder of a Sow burnt and given to drinke, ſerveth well in this infirmitie: ſo dooth the bladder of a Kid, or the lungs in that manner uſed. Furthermore, it is ſaid, That the braines of an Hare taken in wine, is ſingular to helpe this infirmitie. Semblably, the ſtones of an Hare broiled and eaten, or the rennet in the Hares maw, incorporat
C with Gooſe greaſe in Barley groats. The kidneies beſides of an Aſſe, reduced into pouder and drunke in pure wine of the grape. The Magicians have a deviſe by themſelves, and they affirme, That for to hold ones urine, it is paſſing good to drinke the aſhes of a Bores pizzle in ſweet wine: but they inſtruct the patient withall, to make water in a dogs kenell; and in ſo doing, to ſay theſe words, *I do this, becauſe I would not piſſe my bed as the dog doth his couch.* Thus much for the incontinencie of urine. Now if one bee pent and would gladly void urine, let him take the bladder of a Swine, ſo that it never touched the ground, and applie the ſame to the ſhare, for it will provoke the water to paſſe.

But to come unto the diſeaſes of the *ſeat: there is nothing ſo good for them as Beares gall, incorporat together with their greaſe. Some put thereto litharge of ſilver and Frankincenſe. In
D which caſes butter is very good, if with Gooſe greaſe and oile of Roſes it be reduced into a liniment: the conſiſtence or thickneſſe of which compoſition, muſt bee ſuch as the greeved place will admit; namely, that it be gentle and ſmooth, ſo as there bee no paine in the annointing. Alſo Buls gall is a ſoveraign medicine applied thereto upon ſoft lint: for it will quickly skin the chaps and clefts in the fundament. If that part be ſwelled, the ſuet of a Calfe is very good to annoint it therewith: but if the tumors appeare about the ſhare, then there would be Rue joined therto. As for other infirmities incident to thoſe parts, nothing better than Goats bloud, tempered with parched Barly meale. In like manner, for the hard knobs in the ſeat called Condylomata, Goats gall by it ſelfe is a ſpeciall remedie: ſo is the gall of a Wolfe tempered in wine and ſo applied.

*That is to ſay *Piles*, blind hemorrhoids, chaps, fiſſures, and ſwelling biggs.

For the biles and impoſtumes riſing in any place thereabout, there is not a better medicine to
E ſcatter and diſſolve them, than Beares bloud or Buls bloud, dried firſt and ſo beaten to pouder. But the ſoveraigne remedie of all others, is the ſtone which a wild Aſſe is ſaid to void with his urine, at what time as he is killed in chaſe: which urine as it commeth firſt forth of his body, ſeemeth very liquid and thin, but being ſhed once upon the ground it groweth thicke and hard of it ſelfe. This ſtone tied to the twiſt or inner part of the thigh, is ſaid to diſpatch all collection of humors that might ingender biles and botches; or at leaſtwiſe ſo to reſolve them, that they ſhall never impoſtumat and come to ſuppuration. This ſtone is very rare and hard to be found, for it is not in every wild Aſſe: but ſurely famous it is and much ſpoken of by reaſon of this medicinable propertie that it hath. Moreover, the urine of an Aſſe together with Nigella, otherwiſe called Gith, is ſingular good in theſe caſes. Likewiſe a liniment made with the aſhes of an horſe houſe
F incorporat together with oile and water: ſo is the bloud of any horſe, but eſpecially of a ſtallion: the bloud alſo and gall of a Cow or Oxe. Their fleſh moreover, which wee call Bœufe, hath the ſame effect, if it be laid warme unto the place. The aſhes alſo of their cleyes tempered with water and honey. The urine of ſhee Goats: the fleſh of the male Goats boyled in water. In like maner their dung ſodden with honey. Beares gall or the gall of a Bore: laſt of all, the urine of a Sow

applied

applied unto the place with wooll. As touching the galls, which by overmuch riding on horſe- G
backe bee incident to the twiſt and the inner parts of the thigh, as every man knoweth full well; which doe burne and chauſe the skin in thoſe parts; the ſomie ſlime which a horſe yeeldeth, as well from his mouth as his cullions, is ſoveraigne therefore, if the place bee annointed therwith.

It falleth out many times that there ariſe ſwellings in the very ſhare and groine, by occaſion of ſome ſores or ulcers in other parts of the bodie; for the repreſſing of which, there is a preſent remedie, namely, to take three horſe haires, and to tie them in as many knots and ſo conveigh them into the ſaid ulcer which is the cauſe of ſuch tumors.

Chap. xvi.

Proper remedies for the gout: the falling ſickneſſe: for ſuch as be taken or ſtrucken with H
a Planet, or dead palſie: for the jaundiſe: and fractures of bones.

A Cerot made of Beares greaſe, Buls tallow, and wax, of each an equall quantitie, is ſingular good for the gout in the feet. And yet ſome there bee who adde unto them Hypoquiſtis and gall nuts. Others preferre a male Goats tallow, together with the dung of a female Goat, Saffron, and Muſtard ſeed; or the braunches of Yvie ſtamped with Parietarie alſo of the wall; or els the flowers of the wild Coucumber, reduced all into the forme of a cataplaſme and ſo applied. In like manner, others uſe a pulteſſe made of beaſts dung & the mother of vinegre tempered together. Some magnifie & highly commend in this caſe the dung of a Calfe, which hath not as yet taſted of graſſe; or Buls bloud alone without any other thing: likewiſe a Wolfe ſodden I
quicke untill all the fleſh bee gone & nothing but bones remaining; or els a live Wolfe ſodden in oile untill the ſaid oile be gellied to the height or conſiſtence of a cerot. Semblably, there is good account made of the tallow of a hee Goat, with as much Parietarie of the wall, and a third part of Senvie: as alſo of the aſhes of Goats dung incorporat with Hogs greaſe. Moreover, it is ſaid, that the beſt thing that the patient can do for to have eaſe of the Sciatica, is to endure the ſaid dung as hot as poſſibly hee can, under his great toes, untill it bee readie to burne them. For all other joint-gouts as well in feet as hands or els where, the gall of a Beare is a ſoveraigne medicine: as alſo a Hares foot bound faſt to the place affected. And ſome are of this opinion, that the gout of the feet will be aſſuaged, in caſe a man cut off the foot of a quicke Hare, & carie it about him continually. As touching kibes, bears greaſe cureth them: ſo it healeth alſo the chaps in the feet: but more ef- K
fectuall it is, in caſe there be allum put thereto: for which purpoſe Goats ſuet is commended: the pouder alſo of horſe teeth: the gall of a bore or ſow: the lights likewiſe of a ſwine, together with the fat laid to the place. Now if the feet be ſurbatted, galled, and bruiſed in the ſole by treading or ſtumbling againſt that which offendeth them, the ſame medicines be very good: but ſay they are benummed and frozen with cold, the aſhes of Hares haire bringeth them into order againe. The lungs alſo of an Hare ſlit and skiced & ſo laid too, is good for any bruiſe or contuſion in the feet; or the aſhes of the ſaid lungs applied therto. Contrariwiſe, if they be ſcorched and burnt with the heat of the ſun, they find a moſt ſoveraigne cure by the greaſe of an aſſe: likewiſe by bœufe tallow and oile of roſes mixed together. The corns, agnels, chaps, & calloſities of the feet, the freſh dung of a bore or ſow doth heale, if it be applied therto in form of a cataplaſme, & not removed before L
the third day. Of the like efficacie are the aſhes of a ſwines ankle bones, the lungs of a bore or ſow, or of a ſtag. If one have galled his feet by the fretting and ſtubborneſſe of hard ſhoes, the urine of an aſſe together with the mire that is made of the ſame urine upon the ground, doth heale if it be applied to the place. The corns or agnels find much eaſe by bœufe ſuet & the pouder of Frankincenſe reduced into a liniment. But kibed heeles are beſt healed with the aſhes of leather burnt, eſpecially if it were an old ſhoe. Again, if the feet have bin wronged by ſtreight ſhoes, take the aſhes of a goats skin tempered with oile. As for the painefull ſwelled veines, named in Latine Varices, there is a ſoveraign cataplaſm to aſſuage their greefe, made with the aſhes of Calves dung boiled with Lillie roots, and a little hony put therto. The ſame is ſingular for all impoſtumat inflammati-
ons that tend to ſuppuration. This medicine is good alſo for the gout in the feet, and for all diſea- M
ſes of the joints, & namely, if the ſaid dung came from an ox calfe. The joints if they have gotten a ſpreine by any ruſh, find remedie by the dung of bore or ſow, if it be laid too hot within a linnen cloth. The dung likewiſe of a calfe which yet ſucketh & never did eat graſſe, hath the ſame effect: even as goats dung boiled with hony in vinegre. The raggedneſſe of nailes have a proper remedy

of

A of calves dung, of goats treddles likewiſe, if there be red Arſenicke or Orpinent mixed therewith.

As touching werts, there is not a better thing to take them away than the aſhes of Calves dung tempered with vinegre, or the durt that is made by the urine of an Aſſe.

For thoſe that be ſubject to the falling evill, it is ſingular good to eat the genetoirs of a Beare, or to drinke the ſtones of a Bore either out of Mares milke or plaine water: alſo the urine of a Bore mingled with Oxymell. But more effectuall in operation is that urine which hath been ſuffered to drie as it lieth in the own bladder. The ſtones likewiſe of a Sow which are taken from her when ſhe is ſplaied, if they be kept untill they are dried, and ſo brought into pouder, are excellent in this caſe taken in the milk of a Sow, with this charge, that the patient abſtain from wine for certaine daies together, both before and after the receiving of this medicine. For this infirmitie alſo
B they uſe to give the lungs of an Hare poudred or kept in ſalt, with a third part of Frankincenſe in white wine for thirtie daies together. Alſo the rennet or cruds found in the maw. The braines of an Aſſe firſt dried in the ſmoake *within certaine leaves, drunke to the weight of halfe an ounce every day in honied water; or the aſhes of the ſaid beaſts houſe, taken to the quantitie of two ſpoonefuls daily for a month ſpace, are appropriat medicines for this maladie. In like manner, their ſtones preſerved drie and reduced into pouder, ſerve to ſpice their drinke, whether it bee the milk of Aſſes (which is the beſt) or ſhere water. The pellicle wherein the yong fole was lapped in the dams wombe, eſpecially if it were a male that was foled, is of great force to withſtand this diſeaſe, if the patient doe but ſmell thereto when the fit is comming. Some give counſell to eat the heart of a blacke he Aſſe, together with bread: but in any wiſe it muſt be done abroad in the open
C aire, and when the Moon is but one or two daies old at the moſt. Others preſcribe to eat the fleſh: and there be againe who adviſe to drinke their bloud dilaied with water for fortie daies together. Some take Horſe ſtale, mingling it with ſmiths water freſh out of the forge, for the ſaid purpoſe: and with the ſaid drinke cure thoſe that be lunaticke and mad at certaine ſeaſons. Mares milke is ordinarily given with good ſucceſſe to thoſe that be troubled with the falling evill: ſo are the rugged *werts growing upon horſe legs to bee drunke in Oxymell. And to this effect the Magicians would have a diſh of meat made with Goats fleſh roſted againſt a funerall fire, where ſome dead corps is burnt: who ordaine beſides their tallow and Buls gall, of each an equall weight, to bee ſodden, and then to be put up againe in the bladder or burſe of the ſaid gall, that it touch not the ground in any caſe; and beeing thus prepared, the patient forſooth muſt drinke it in water ſtan-
D ding upon the dore ſill, and under the very lintell thereof. Now, if you would know whether a man be ſubject to this ſickneſſe or no, doe but burne before him either a Goats or Stags horn, the very ſmoke or fume thereof will bring the fit upon him, if he be tainted therewith.

Concerning thoſe that be ſuddainely taken with a dead palſie of the one ſide of their bodie: it is ſaid that the urine of an Aſſe-fole incorporat with Spikenard into the forme of a liniment, is very good for them, if the inunction therewith be uſed.

For the jaundiſe, Harts horne burnt and reduced into aſhes, is a very proper medicine: ſo is the bloud of an Aſſe fole drunk in wine. Likewiſe the *dung of an Aſſes fole which came firſt from it after it was foled, given to the quantitie of a Beane in a draught of wine, cureth the jandiſe within three daies. The ſame operation and effect there is in the firſt ordure that a Colt maketh after
E it is come into the world.

If any bone be broken or bruiſed, there is not a more preſent remedy than the aſhes of a cheeke either of a wild Bore or tame ſwine. In like manner, their lard ſodden and tied round about the broken bone, doth conſolidat and ſouder it againe wonderous ſoone. And verely if there bee any ribs in the ſide broken, the ſoveraigne and onely remedie commended, is Goats dung tempered with old wine, for it openeth, draweth, and healeth the fracture throughly.

As touching feavers, the feeding upon the veniſon of red Deere driveth them all away, as I have before ſhewed: but more particularly, if it bee any of theſe Typicke and Periodicall agues, which be intermittent and returne by fits, there is not a better thing, if wee may beleeve Magicians, than to take the right eie of a Wolfe, ſalt it, and ſo tie it about the necke or hang it faſt to any
F part of the patient. Of theſe fevers, there is one called a Quotidian, which the Greeks name Amphemerinos; & from it (by their ſaying) a man ſhall be throughly rid, in caſe he let an Aſſe bloud in the eare veine, and drinke three drops thereof juſt in three hemines of water. But againſt the Quartane ague, the Magicians give order to weare about the necke or hanging to the arme cats dung, together with the claw or toe of a *ſcriche Owle, but ſo as they may not fall off nor bee removed

*In folijs. Some read *ſolijs*, i. in the baines or ſtouves.

*Lichenes: ſome take them for the Malandets.

*Called before Poſca.

*Bubonis.

moved before ſeven fits be paſt. Now tell me (I pray you) what was he that could find out this ſecret firſt? Gladly would I learne what reaſon there is in this mixture, and why an Owles claw or toe was choſen above all other for this purpoſe? Certes, there be ſome of them yet more modeſt than their fellowes: and they have given out, That the liver of a Cat killed in the wane of the Moone, laid up in pouder with ſalt, is to bee given in a draught of wine a little before the acceſſe or fit of a Quartane. And theſe Magicians have yet another pretie receit againſt ſuch agues: For they take the aſhes of a Cow or Oxe mucke, and ſprinckle it well with the urine of a young boy; wherewith they annoint the toes of the patient: but to his hands or armes they bind the heart of an Hare; which done, they ordain alſo to give him before the fit, the Hares rennet in a draught of drinke. To conclude, they ſay, that a freſh greene cheeſe made of Goats milke, out of which the whey hath been well preſſed, is ſingular to be given in honey. G H

Chap. xvii.

Proper remedies againſt the trouble of the braine by reaſon of melancholie, againſt the lethargie, dropſie, ſhingles, and S. Anthonies fire. Alſo for the paine of the ſinewes.

THe dung of a Calfe ſodden in wine, is an excellent remedie for thoſe who are given to melancholie. For to raiſe and awaken them that are in a lethargie, there is not a better thing than the rough werts growing upon an Aſſes leg, if the ſame be tempered with vinegre into a liniment, and the noſthrils annointed therewith: alſo the perfume of the horne or haires of a Goat; yea, and a Bores liver: which is the cauſe that it is given ordinarily to thoſe that have the drowſie diſeaſe, and be alwaies ſleepie. I

For the phthyſicke, the liver of a Wolfe ſodden in wine is very good: likewiſe the lard of a leane running Sow feeding only upon graſſe: as alſo Aſſe fleſh ſodden and eaten with the broth: And verely in Achaia this is the principall courſe they take for the cure of that diſeaſe. Moreover, it is ſaid, that to receive through a pipe or reed the ſmoake of the drie dung made by Cow or Oxe lying foorth and feeding onely upon greene graſſe, is very holeſome for thoſe that have the phthyſicke or conſumption of the lungs. Alſo there bee who calcine the tips of Bœufes hornes, and taking the meaſure of two ſpoonefuls of the aſhes, incorporat the ſame with honey, make it up into pils, and ſo ſwallow them downe for the ſaid maladie. Many there are who affirme, That the phthyſicke and cough be cured by eating a kind of pottage made with Frumentie corne and Goats ſewet: and they hold opinion, That the ſaid ſuet taken freſh and ſweet and ſo diſſolved in mead; with this proportion, that to every cyath of the mead there bee put an ounce of ſuet, and that order be taken to mingle them throughly well, with a braunch or ſprig of Rue among, is a ſoveraigne medicine for thoſe infirmities. There is one writer of good credit and authority, who upon his certaine knowledge doth avouch, That there was one ſo farre gone in a phthyſick, that he was given over by the Phyſicians, and yet he recovered by drinking the ſuet of a Shamois or wild Goat together with milke, of each one cyath at a time. Others ſay, that much good hath ben found by drinking in ſweet cuit, the aſhes of Swines dung: as alſo by the lungs of a red Deer, eſpecially the Spitter of that kind, dried in the ſmoke, reduced into pouder and ſo drunke in wine. K L

In caſe of the dropſie, the urine of a Bore found in his bladder given to the patient in drinke by little and little, helpeth very much: but of greater efficacie it is, if the ſame bee permitted to drie within the bladder. Furthermore, the aſhes of Harts dung, and namely of that deere which is called the Spitter: as alſo of Neats dung, ſuch I meane as goe abroad and feed with the heard, (and that they call by a peculiar name *Bolbiton) is a ſoveraigne remedie for the dropſie. Marie, if the patient be a woman, there muſt be choiſe made of Cow dung; but if a man, the dung of the other ſex is to be taken: and this I may tell you is ſuch a ſecret myſterie, that the Magicians would not have to be revealed & made known. Many other medicines there be for the dropſie, to wit, the dung of a Bull-calfe uſed in a liniment: the aſhes of a Calves dung drunk in wine, with an equall quantitie of the wild Parſenep ſeed: Goats bloud together with the marrow, eaten with meat: It is thought that this bloud will worke the better, if it bee taken from the male Goats; provided alwaies, that they feed upon the Lentiske tree, and then no doubt it will doe the deed ſurely. M

*i. Sherne.

As touching S. *Anthonies* fire, the ſhingles &c. the meanes to quench the ſame, is to annoint the place with Beares greaſe, and eſpecially the fat that is found about the kidneies: alſo with the

greene

A greene dung of a calfe, cow, or ox. Some uſe hard cheeſe made of goats milke and porret toge-
ther: alſo the fine ſcrapings of a ſtags skin fetched off with a pumiſh ſtone & brought into pow-
der, and ſo applied with vinegre. For the redneſſe of the skin with much itching, the ſome of an
horſe mouth, or the aſhes of his houſe, is a ſingular medicine. If there be any wheales or ſmall
pocks proceeding of fleame, doe annoy the skin, no better thing than a liniment made of aſſe-
dung aſhes incorporat in butyr: Say theſe wheals or pimples appeare blackiſh and ſwert by rea-
ſon of melancholly, drie cheeſe made of goats milke brought into an ointment with honey and
vinegre, is good to rub the bodie withall in a baine or hothouſe, without any uſe of oile at all. For
bliſters and angrie meazles, the aſhes of ſwines dung are thought to be verie meet: as alſo the a-
ſhes of harts horne, ſo that the place be rubbed with them and water togither. If there be any diſ-
B location or bone out of joynt, the green dung of a bore or ſow is good to be applied: ſo is that of
a calfe: the ſome frothing from a bore, laid to the place with vinegre: and goats dung with hony.

There is not a better thing to bring downe any ſwelling, than a cataplaſme of raw beefe: and as
for any hard tumors, ſwines dung made hote and dried in an earthen potſheard, or upon a tile, is
2 excellent to diſcuſſe and reſolve them: the greace of a woolfe is exceeding goood to breake any
impoſtumation that is grown to ripeneſſe: ſo is neats dung made hot under the embres: or goats
treddles ſodden in wine or vinegre. As touching fellons and ſuch like apoſtumations, bœufe tal-
low with ſalt is much commended for to reſolve them: and if the place be much pained, it were
good to dip the ſaid tallow in oile, and to melt the ſame without any ſalt: and in like manner is
goats ſewet to be uſed. For a burne or ſcald, there is a proper ſalve made of bears greace and lillie
C roots: for which purpoſe, the dung of bore or ſow that hath been long kept, is very good: ſo is
the aſhes of their briſtles (ſuch as pargettars whiting-bruſhes be made of) wrought & incorporat
with greace: alſo the aſhes of a beaſts ankle or paſterne bone tempered with wax and the marow
either of a deere or bull: like as the dung of an hare. And verely, goats treddles are ſo accom-
modat to this cure, that (by report) they will heale a burn without any skar at all. The moſt excel-
lent glew is made of the ears and pizzles of buls: and there is not a better thing in the world than
it, for to heale any place burnt or ſcalded: but nothing is ſo much ſophiſticat, what with other old
skins and hides, and what with old ſhoes and ſuch like lether, boiled againe and made into glew.
The moſt faſt and ſtrongeſt glew which a man may truſt unto, is made at Rhodes; and that is it
which painters and phyſicians moſt uſe: the whiter that the ſame is, the better is it eſteemed: that
D which looketh blacke, and is hard withall and brittle like wood, is rejected.

It is thought, that for the paine of the ſinews, goats dung boiled in wine with honey is ſove-
raigne, yea though a nerve began to putrifie: convulſions, cramps, and ſpreins of nerves upon
ſome violent ſtroke, are cured with bores dung gathered in the ſpring & ſo dried. After the ſame
manner, ſuch as be overſtreined and plucked with the draught of any charriot, or wounded with
the wheels going over them; and generally, howſoever the bloud be ſetled black under the skin
by contuſion or bruiſe, if the places be anointed with the ſaid dung, though it were green & freſh,
much eaſe and helpe enſueth thereupon: howbeit, ſome thinke that it were better to ſeeth the
dung firſt in vinegre: and others reduce the ſame being drie into powder, & promiſe them that
be either burſten, wounded and bruiſed inwardly, or have been overthrowne and falne from on
E high, if they drinke it in vinegre, that they ſhall have helpe thereby. But the better and thoſe that
love not to make the greateſt boaſt of their medicines, uſe the aſhes therof with water. And verely
it is ſaid, that the Emperor *Nero* was wont in this kind of drinke to take great pleaſure, and with it
to refreſh himſelfe, when his purpoſe was by that means to win a name and approove himſelfe a
doubtie wight, in running with coaches in the great cirque or ſhew-place. To conclude, next to
the dung of the bore, is commended that of a ſow or any other hog, and thought to be in a ſe-
cond place of operation.

Chap. XVIII.

*Medicines to ſtanch blood: to heale ulcers, cancerous ſores, and the wild ſcab: alſo what me-
dicines they be that draw thorns, pricks, or whatſoever ſticketh within the fleſh.*
F *Finally, proper receits to cicatrize and skin a wound or ſore.*

THe rennet of any deere or a hare, uſed in vinegre, ſtancheth bloud: The aſhes alſo of the
haire of an hare: likewiſe of aſſes dung: yea and the verie aſhes of their haire made into a
liniment with any convenient liquor, hath the ſame effect: but if you would have it to work

more effectually, chuſe theſe excrements of the male aſſe, mix the ſame with vinegre, and apply G
it with wooll; for it will ſtay any flux of blond whatſoever: likewiſe if it be of the hair which is curried from the horſe head or buttocke when he is dreſſed: or els the aſhes of calves dung tempered with vinegre, and ſo applied unto the place. In like manner the aſhes of the goats horne or dung, with vinegre. And yet the bloud that iſſueth out of a buck-goats liver when it is ſliced and cut in ſunder, is more effectuall: but the aſhes of them both, as well the male as female, the liver and the bloud drunke in wine, or applied unto the noſthrils with vinegre, is of vertue to ſtaunch bloud. Moreover, the aſhes onely of a leather wine-bottle made of a male goats skin, mixed with an equall quantitie of roſin, doth not onely ſtop an iſſue of bloud, but alſo conglutinat and heale a wound. Furthermore, the rennet of young kids, with vinegre; the aſhes alſo of their haunches burnt, is thought to have like operation in ſtaunching of bloud. If there be any ulcers upon the H
ſhins or any part of leg and thigh; bears greace & red oker incorporat togither into a ſalve, doth heale the ſame: but in caſe the ſaid ſores be corroſive and eat farther, the gall of a bore with roſin and ceruſe, cureth the ſame: ſo doth the aſhes of a bores or ſowes cheeke: likewiſe ſwines dung dried and applied to the grieved place: as alſo goats treddles warmed well over the fire with vinegre, and laid too accordingly. But for to mundifie and incarnat all other ſores, they uſe butter; the aſhes of a ſtags horne, or the marow of red deere; buls gall likewiſe, with the oile of the plant Cypros; or els the dung of a goat, male or female it skills not whether. If there be a wound made by ſword or edged weapon, there is good means to heale it with the freſh dung of ſwine, or elſe the powder thereof being long kept and dried, if the place be dreſſed therewith. In caſe there be an ulcer that eateth deepe to the verie bone, or an hollow fiſtula, it is good to inject into it with a I
ſyringe, a bulls gall, with the juice of leeks or breſt-milke: or elſe to dreſſe the ſame with the pouder of his bloud dried, incorporat with the hearbe called Vmbilicus Veneris. Is the ſame cancerous? the rennet of a leveret with the hearbe Capers, taken of each a like quantitie, and ſprinkled with wine, doth cure it. If it grow to mortification and proove a gangrene, it is good to annoint the place with bears gall, with a feather. As for corroding ulcers which ſpread ſtill farther, no better thing to repreſſe them, than to ſtrew upon them the aſhes of an aſſe-houſe. The bloud of an horſe is corroſive, by vertue whereof it doth eat away and conſume the excreſcenſe of prowd fleſh: ſo do the cinders of old horſe dung burnt. As for thoſe kind of fretting cankers which the Greeks call Phagedænæ, the aſhes of a bœufe hide mingled with honey, doth cure and heale perfitly. The application of raw veale unto a greene wound, keepeth it from ſwelling: and a cata- K
plaſme of beaſts dung and honey togither, doth the like. But ſay the ulcers be maligne and filthie morimals, ſuch as the Greeks call Cacoëthe, the aſhes of a leg of veale incorporat with womans milke, doe heale up cleane. Freſh wounds occaſioned by ſword or edged weapon, bulls glew diſſolved or melted, and ſo applied, doth cure verie well, ſo it be not remooved untill the third day. If a ſore need to be cleanſed, drie cheeſe made of goats milke, tempered with vinegre and hony, is a ſingular mundificative. An ulcer given to go farther, and to eat as it goeth, is repreſſed by applying tallow thereto and wax incorporat togither: put to it pitch and ſulphur, it will heale and skin the ſame throughly. In like manner, for the untoward morimals beforeſaid, which they call Cacoëthe, it is very good to lay a pultus made with the aſhes of a kids leg and breſt-milke. As
for carbuncles, take the brains of a tame ſow, roſt the ſame and apply it unto the ſores, it is a ſo- L
veraigne remedie. Touching the ſcabs that men be ſubject unto, there is not the like medicine for killing the ſame, to the marow of an aſſe: and a liniment made with the urine of the ſaid beaſt togither with the earth upon which he hath ſtaled. Butyr likewiſe is verie good in that caſe, as alſo for the farcins, ſullanders, and mallanders in horſes, if it bee applied thereto with roſin made hot: ſo is ſtrong bulls glew diſſolved in vinegre, with quick-lime put thereto: alſo goats gall tempered with the aſhes of alume calcined. For the red bliſters and meazils likewiſe, there is not a better medicine than the dung of a cow or ox; and therupon they tooke the name of Boæ. The mange in dogs, is healed with beaſts bloud, ſo they bee bathed therewith whiles it is freſh and warme; and after the ſame is dried upon the bodie, to follow it a ſecond time the ſame day: and the morrow after to waſh them throughly with lie made of ſtrong aſhes. M

If thorns, ſpills, bones, and ſuch like things have gotten into the fleſh and there ſticke, cats dung is verie good to draw the ſame forth: likewiſe the treddles of a goat with wine. Any rendles alſo, but eſpecially that which is found in an hares maw, ſerve in that caſe, reduced into a ſalve with the powder of frankincenſe and oile; or elſe with the like quantitie of birdlime, or the ce-

reous

A reous matter in the bee-hive called Propolis.

Furthermore, the greace of an aſſe is ſingular to reduce any ſwert ſploches and blacke skars to a freſh and native colour; which, if they overgrow the skin about them, are brought downe and made more even and ſubtile, by an inunction of calves gall: but the Phyſicians prepare the ſaid gall with an addition of myrrhe, honey, and ſaffron, and then put it up in a braſen box for their uſe: yet ſome there be, who mingle with the reſt verdegris or the ruſt of braſſe.

Chap. xix.

Receits appropriat to the maladies of women, and the diſeaſes of ſucking babes: alſo remedies for them that are unable to perfourme the act of generation.

B

TO begin with the naturall courſe of womens purgation: the gall of a bull or ox, applied unto their ſecret parts in unwaſhed greaſie wooll, is very effectuall to bring the ſame downe. The skilfull midwife of Thebes, *Olympias*, uſed to put thereto * hyſſope and ſal-nitre. For this purpoſe, harts horne burnt to aſhes is verie good to bee taken in drinke. But if the matrice be out of order and unſetled, it is not amiſſe to apply the ſame aſhes unto the naturall parts: yea and bulls gall togither with * Opium to the weight of two oboli; or els perfume their ſecret parts with a ſuffumigation of deers haire. Moreover, it is ſaid, that the hinds when they perceive themſelves to be in calfe, ſwallow downe a little ſtone; which is ſingular good for women with child to C carrie about them, that they may goe out their full time: and therefore much ſeeking there is after this ſtone, which is commonly found among their excrements at ſuch a time, or elſe in their wombe, if haply they be killed with calfe, for then is it to be had there alſo. Moreover, there are found certaine little bones in the heart and matrice of an hind, and thoſe bee paſſing good for great bellied women, and ſuch as be in travaile of childbirth. As for that ſtonie ſubſtance reſembling a pumiſh, which in like manner is found in the wombe of kine, I have ſpoken alreadie in my diſcourſe of Kine, and their nature. If the matrice of a woman bee growne hard, and have a ſcirrhe in it, the fat of a wolfe will mollifie it: if it be grieved with paine, the liver of a wolfe aſſuageth the ſame. When women bee neare their time, and readie to crie out, it is good for them to eat wolves fleſh: or if when they fall firſt to travaile, there bee but one by them who hath eaten D therof: and this is ſuch an effectuall thing, that if they were foreſpoken, or indirectly dealt withall by ſorcerie and witchcraft, this is thought to eaſe them of paine, and procure them ſpeedie deliverance. But in caſe ſuch a one as hath eaten wolves fleſh, chaunce to come into the chamber when a woman is in the mids of her travaile, ſhee ſhall ſurely have a hard bargaine, and die of it. Moreover, great uſe there is of the hare in all womens infirmities; for the lungs of an hare dried, made into powder, and taken in drinke, is comfortable to the matrice, and helpeth it in many accidents thereof: the liver drunke with Samian earth in water, ſtaieth the exceſſive flux of their fleurs: the rennet of their maw fetcheth away the after-birth when it ſtaieth behind; but then in any wiſe the woman muſt not bath or ſweat in baine the day before: the ſame rennet applied as a cataplaſme upon a quilt of wooll, with ſaffron & the juice of porret, forceth the dead infant within E the mothers womb to come forth. Many are of opinion, that if a woman eat with her meat the matrice of an hare, ſhe ſhall thereupon conceive a man-child if ſhe companie with her husband. And ſome ſay, that the genetoirs of the male hare, yea & the rendles, are good for that purpoſe. And it is thought, that if a woman who hath given over bearing children, do eat the young leveret taken forth of the dams belly when ſhe is newly bagd, ſhe will find the way againe to conceive and breed freſhly as before. But the magicians do preſcribe the husband alſo to drinke the bloud of an hare, for ſo (ſay they) hee ſhall ſooner get his wife with child. And they affirme moreover, that if a maiden be deſirous that her breſts or paps ſhould not grow any more, but ſtand alwaies at one ſtay knit up round and ſmall, ſhe is to drinke nine treddles or grains of hares dung: and for the ſame intent, they adviſe a virgin to rub her boſome with the hares rennet and honey togither: F alſo to annoint the place with hares bloud where the haire is plucked off, if they be deſirous that it ſhould not grow againe. As touching the ventoſities and inflation of the matrice, it is good to uſe thereto a liniment made of bores or ſwines dung, incorporat with oile: but in this diſeaſe, it were better for to repreſſe the ſaid windineſſe and flatuoſitie, to ſpice a cup with the powder of the ſame dung dried and give it to the woman to drink; for whether ſhe be vexed with wrings whiles

* *Hyſſopum*; ſome read *Oſypum*, which the Apothecaries call *Hyſſopus humida*: & is nothing els but the greaſie filth and ſweat tried out of the wooll growing in ſheeps flanks.

* *Opio*, ſome read *Apio*, *i.* perſley.

ſhe is with child,or pained with after-throws in childbed,ſhee ſhall find much eaſe by that potion. Furthermore it is ſaid, that ſows milke given with honyed wine to a woman that is in labour, helpeth her to ſpeedy deliverance. Let a woman newly brought to bed drink the ſame milk alone, ſhe will proove a good milch nource, and have her breſts ſtrut with milke: but let her breaſts be annointed all over with the bloud of a ſow, they will grow the leſſe by that means. If the paps doe ake and put the woman to paine, a draught of aſſes milke aſſuageth that griefe: put thereto a quantitie of honey, it will bring down the deſired purgation of a woman. The greace of the ſame beaſt, which hath been tried and long kept, healeth the exulceration of the matrice: and beeing applied to the naturall parts with a lock of wooll in forme of a peſſarie or otherwiſe, it mollifieth the hardneſſe of that place. The ſame freſh,or long kept(it makes no matter whether)is depilatorie; for looke what part is annointed with it & water togither, the haire will come no more there. The milt of an aſſe kept untill it be drie,and tempered with water into a liniment for the breaſts, cauſeth them to grow, and bringeth ſtore of milke into them: and if the matrice be unſetled and turned aſide any way out of order, it reduceth it into the place againe. If a woman ſit over a ſuffumigation of an aſſes houſe,and receive the fume up into her bodie,ſhe ſhall have quicke ſpeed of childbirth; for ſo ſtrong it is, that it will cauſe abortion and put her to a ſlip before the time: and therefore it is not to be uſed unleſſe a woman have gone her full time, or that the child bee dead in her wombe; for ſurely it is able to kill the child within her bodie, without great heed and carefull regard. Alſo it is ſaid, that the dung of this beaſt, if it be applied freſh and green, is of wonderfull operation to ſtop the extraordinarie flux of bloud in women: ſo is the aſhes of the ſame dung, which being laid unto their naturall parts, is a ſoveraigne remedie for the accidents therto belonging. Moreover, take the ſome or froth of an horſe mouth, and let the place be annointed therewith for * twentie daies togither, either before the haire doe come, or when it beginneth to ſpurt, it will keepe them for ever being undergrown: of the ſame operation is the decoction of a harts horne; but it will do the feat the better, in caſe the ſaid horne be new and greene. If the matrice be ſyringed and waſhed with mares milke, it will find much comfort and eaſe thereby. If a woman perceive the infant to bee dead in her bodie, let her take the powder of the rugged werts upon a horſe leg, called Lichenes, in freſh water, it will exclude the ſaid dead fruit of the wombe: the perfume alſo of the houſe will doe as much, or the dung dried. If the matrice be falne or ſlipt out of the bodie, an injection of butter by the metrenchyte, ſtaieth the ſame and keepeth it up. If there be any hardneſſe growne in that part, whereby it is ſtopped, a beaſts gall mingled with oyle of roſes and terpentine, and ſo applied outwardly in a lock of wooll, openeth the ſaid obſtruction. It is ſaid alſo, that a ſuffumigation made of ox dung, ſtaieth the matrice up when it is readie to fall, yea and helpeth a woman in labour to ſpeedie childbirth: but if ſhe uſe to drinke cows milke, ſhe ſhalbe the better diſpoſed and prepared to conceive with child. Moreover, this is a thing for certein knowne, that there is nothing bringeth a woman ſooner to barrenneſſe, than hard travaile in child-bearing. But to prevent this inconvenience, *Olympias* the expert midwife of Thebes, affirmeth, that there is nothing better than to annoint the naturall parts of a woman with ox gall, incorporat in the fat of ſerpents, verdegrece, and hony mixed therewith, before that ſhe medleth with a man in the act of generation. Likewiſe, if a woman which is given to have thoſe naturall parts over-moiſt and ſlipperie, by reaſon of humours purging immoderatly that way, doe apply unto the neck of the matrice a calves gall, a little before ſhe mind to admit the carnall companie of a man, ſhe will be the more apt to conceive: and in verie truth, the inunction therewith doth mollifie the hardneſſe of the belly; repreſſeth outrageous fluxions, if the navill bee annointed therwith: and in one word, is good everie way for the matrice. Howbeit in the uſe of this gall, they ordaine a proportion, to wit, that to everie denier weight of the ſame, there be put a third part of * perſley ſeed, with as much of the oile of almonds as is thought ſufficient to incorporat them into a liniment; and this they put up with wooll in manner of a peſſarie. The gall of an ox-calfe tempered with halfe as much honey, is a medicine ordinarily kept in readineſſe for the diſeaſes of the matrice. Some make great account of veale, and doe promiſe, that if women about the time that they conceive doe eat it with the root of Ariſtolochia, *i.* Birthwort, they ſhall bring foorth boies. As for the marow of a calfe, ſodden in wine and water togither with the ſuet, & ſo conveied up in a peſſarie, healeth the exulceration of the matrice. So doth fox greace, & the dung of cats; but this ought to bee applied with roſin and oile roſat. It is thought, that there is not ſo good a thing for the matrice, as to ſit over a ſuffumigation made of goats horne. The bloud of the wild

G H I K L M

* Some read, fortie.

* *Apÿ*, ſome read *Opÿ*. *i.* the juice of poppy.

goat

A goat or shamois tempered with the * sea-ball, serveth to take away haires: but the gall of other goats that bee tame, mollifieth the callositie in the matrice, if a pessarie be strewed withall, and causeth a woman to bee meet for conception, if shee use it presently upon the purgation of her monethly terms. Also the same hath a depilatorie vertue, if a liniment be made therewith, and used to the place where the haire is plucked forth alreadie, and kept thereto three daies togither. Furthermore, our midwives doe warrant, that if a woman drinke goats urine, it will stop all fluxes of bloud be they never so immoderat, so that she apply also outwardly the dung of the said beast. The pellicle or gleane wherein a kid was enfolded within the dams wombe, kept untill it bee drie and drunke in wine, putteth foorth the after-birth in women. And they are of this opinion, that a suffumigation of kids haire, is verie good for to cause the matrice to returne when it was falne
B downe: also, that to drinke their rennet, or to apply outwardly henbane seed, is singular for to stay any issue of bloud. *Osthanes* saith, that if the loins or small of a womans backe, be annointed with the bloud of a tike taken from a blacke bull or cow that is of a wild kind, it will put her out of all fansies of venereous sports. He affirmeth moreover, that if shee drinke the urine of a male goat, with some spikenard among to take away the lothsome tast therof, she will forget all love that she bare to any man before.

To come now unto little infants: there is not a more proper thing for them than butyr, either alone by it selfe, or with hony: and to speake more particularly, it helpeth them when they breed teeth, or have their gumbs sore, or mouth exulcerat. If there be hung about the necke of a little infant the tooth of a wolfe, it keepeth them from starting or skriching in their sleep for feare, and
C allaieth the paine which they feele in toothing: The same doth also a wolves skin. And verely the great master teeth and grinders of a wolfe, being hanged about an horse neck, cause him that he shall never tire and be wearie, be he put to never so much running in any race whatsoever. Let a nource annoint her breast with the rennet of an hare, the babe that she giveth sucke unto shall by that means be knit in the belly and not be troubled with the laske. The liver of an asse with a little of the hearb Panax mingled withall, dropped into the mouth of an infant, preserveth it from the falling sickenesse and other dangerous diseases; but this (they say) must be done for fortie dayes togither. If a child be lapped in a mantle or bearing-cloth made of an asse skin, it shall not be affrighted at any thing. The colts teeth that first fall from an horse-sole, if they be hung about yong childrens necks, ease them much of the paine that they have in breeding teeth: but more effec-
D tuall they be, in case they never touched the ground. The milt of a bœuse eaten with honey, and the same reduced to a liniment and applied accordingly, is good for the paine of the splene: put honey thereto, it healeth the running skalls that trouble children. The milt of a calfe sodden in wine, stamped and brought into a liniment, healeth the cankers or little sores in the mouth that young infants be subject unto. The magicians have a devise, to take the brains of a female goat, and let it passe through a golden ring, and to drop the same into the mouth of infants new born, before the teat be given unto them: which (they say) is singular good against the falling sickenesse, and other infirmities that to such babes are incident. Goats dung wrapped within a peece of cloth and so hanged about a young child, stilleth it, being never so froward or unquiet, and a girle especially. The gumbs of yong babes washed with goats milke, or annointed with hares brains, cause
E them to have great ease in toothing. *Cato* is of opinion, that whosoever use to eat hares flesh, shall sleepe well. And the common sort of people are perswaded, that the meat of this kind of venison, causeth them that feed upon it to looke faire, lovely, & gracious, for a weeke togither afterwards: For mine own part, I thinke verely it is but a toy and meere mockerie; howbeit there must needs be some cause and reason of this setled opinion which hath thus generally carried the world away to think so. The magicians affirme for certein, that if the eys be anointed with the gall of a female goat (such only as had been offred in sacrifice) or laid under the pillow in bed, it will procure them to take their repose who were far out of sleepe. The ashes of a goats horne incorporat into an unguent with oile of myrtles, keepeth those from diaphoreticall sweats who are anointed therwith.

A liniment made of bores gall, provoketh unto carnall lust: the same effect there is of that vi-
F rulent slime, which *Virgil* the Poët describeth to drop from *, a mares shap, against the time that shee is to be covered: also the stones of an horse so dried that they may be reduced into powder, for to be put in drinke: moreover, the right genetoir of an asse drunke in wine as need requireth, or tied in a bracelet fast to the arme, inciteth to venerie: furthermore, the frothie sperme that an asse sheddeth after he hath covered the female, gathered up in a peece of red cloth, and enclosed within

* *Pila marina*: θαλαττία σφαῖρα *Galen. lib.* 1. περὶ τύπ.

* *Ad coitū equæ* not according to the meaning of *Virg.* 3. *Geor.* in these words, *Scilicet ante omnes furor est insignis equarum, &c.* and a little after: *Hinc demum Hippomanes, &c. sentum destillat ab inguine virus.*

within ſilver and ſo carried about one, is of great power in this caſe, as *Oſthanes* mine authour G
ſaith. But *Salpe* (a famous courtizan) giveth direction to plunge the genitall member of this beaſt ſeven times togither in hot oile, and with the ſaid oile to annoint the ſhare and parts thereabout. *Bialcon* adviſeth to drinke the aſhes of the ſaid member, or the ſtale of a bull preſently after hee hath done his kind to a cow, and with the earth that is moiſtened & made mire with the ſaid ſtale, to anoint the privie parts. Contrariwiſe, there is not a thing that cooleth the luſt of a man more, than to annoint the ſaid parts with the dung of myce and rats. To conclude, for to avoid drunkenneſſe, take the lungs of an hog, be it bore or ſow it matters not; in like manner of a kid, and roſt it; whoſoever eateth thereof faſting, ſhall not be drunke that day, how liberally ſoever hee take his drinke.

H

Chap. xx.

Straunge and wonderfull things obſerved in beaſts.

THere be other admirable properties and vertues reported of the ſame beaſt, over and beſides thoſe before rehearſed; for it is ſaid, that whoſoever do find and take up an horſe ſhoe ſhaken from the houſe (an ordinarie thing that happeneth upon the way when a horſe caſteth his ſhooe) and lay the ſame up, they ſhall find a remedie for the yox, if they doe but call to mind and thinke upon the place where they beſtowed the ſame. Alſo, that the liver of an Hare is in this regard for curing of the hicket, like to an horſe ſhoe. Moreover, if an horſe doe follow in chaſe after a wolfe, and chaunce to tread upon the tracts where the wolfe hath run, hee will be I
broken winded and burſt, even under the man upon his backe. It is thought moreover, that the ankle bones of ſwine, have a propertie to make debate and quarrels. Alſo, when any ſheep pens or ox-ſtals be on a fire, if ſome of the dung be caſt forth, the ſheepe and oxen that be within will ſooner be gotten and drawn forth, and never come thither againe. Furthermore, that goats fleſh will have no ranke ſmell or taſt, if ſo bee the ſame day that they were killed, they did eat barley bread, or drinke water wherein Laſer was infuſed. Beſides, that no fleſh which is powdred well with ſalt in the wane of the moone, ſhall ever corrupt and be ſubject to worme or maggot. But ſee how diligent & curious our aunceſtors have been in ſearching out the ſecrets of every thing; inſomuch as wee find obſerved by them, That a deaſe Hare will ſooner feed and grow fat, than another that heareth. K

And to come unto leechcraft belonging to beaſts: it is ſaid, that if an horſe void bloud exceſſively, it is good to poure or inject into the bodie, hogs dung with wine. As for the maladies of kine and oxen, tallow, ſulphur-vif, crow garlicke, a ſodden [hens] egg, are ſingular good medicines to be given everie one of them beaten togither in wine: the fat alſo of a fox is good in that caſe. If ſwine be diſeaſed, the broth made of horſe-fleſh ſodden, is verie good to bee given them in their waſh to drinke. And in what diſeaſe ſoever it be of all foure-footed beaſts, there is not a better remedie than to ſeeth a goat all whole, in the very skin, and a land toad togither. Alſo it is ſaid, that a fox will not touch any cocks, hens, or ſuch like pullen, that have eaten (before) the dried liver of a Reinard; nor thoſe hens which a cock having a collar about his neck of a fox skin, hath troden. The like effects are reported of a weazils gall: As alſo that kine and oxen both in L
the Iſland Cyprus, when they are troubled with the belly-ach, cure themſelves with eating the excrements of a man: That the cleys of kine and oxens feet will not weare to the quicke nor bee ſurbated, if their hornes before were annointed with tarre: That wolves will not come into any lordſhip or territorie, if one of them be taken, and when the legs are broken, be let bloud with a knife by little and little, ſo as the ſame may be ſhed about the limits or bounds of the ſaid field, as he is drawne along, and then the bodie bee buried in the very place where they began firſt to drag him. Others take the plough-ſhare from the plough wherewith the firſt furrow was made that yeere in the field, and put it into the fire burning upon the common herth of the houſe, and there let it lye untill it be quite conſumed: and looke how long this is in doing, ſo long ſhall the wolfe doe no harme to any living creature within that territorie or lordſhip. Thus much by way M
of digreſſion: now is it time to return unto the diſcourſe of thoſe living creatures which be raunged in their ſeverall kinds, and ſuch as are neither tame nor ſavage.

THE

THE XXIX. BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

¶ The Proëme.

CHAP. I.

*The Originall of Phyſicke. When Phyſicians began to viſit the ſicke in their houſes. When came up firſt the maner of *curing diſeaſes by outward application of ointments and by fricatiõs. Of* Chryſippus *and* Eraſiſtratus. *Of the *Empiricke practiſe of Phyſicke. Of* Herophilus *and other famous Phyſicians. How many times the order of Phyſicke hath been chaunged. Who was the firſt profeſſed Phyſitian in Rome, and when hee began to practiſe. What opinion or conceit the auncient Romanes had of Phyſicians. Finally, the imperfections and defaults in this art of Phyſicke.*

THE admirable nature of a number of medicines, as well thoſe which I have alreadie ſhewed, as thoſe which remain as yet to be handled, forceth me to write yet more of Phyſicke, and to ſound to the very deapth and bottome: albeit I know full well, that there is not a Latine writer who hath travelled hetherto in this argument; and am not ignorant how tickliſh and daungerous a point it is at firſt to ſet abroach any new matters, eſpecially ſuch, whereby a man is ſure to reape but ſmall thankes, and in deliverie whereof, is to make account of a world of difficulties. But for as much as it is very like that thoſe who are well acquainted with this ſtudie, will muſe how it is come about, that the remedies drawne from ſimples, ſo eaſie to bee found and ſo accommodat to maladies, are caſt behind and growne out of uſe in the practiſe of Phyſicke; it cannot bee, but withall they muſt marvell much, and thinke it a great indignitie, that no ſcience and profeſſion in the world hath had leſſe ſoliditie in it and ben more unconſtant, yea, and how it daily changeth ſtill, notwithſtanding there is not any other more profitable and gainefull than it.

But to enter into the diſcourſe thereof, Firſt and formoſt, the invention of this act hath beene fathered upon the *gods, ſuch I mean as are canonized gods in heaven: yea, and even at this day we have recourſe ſtill unto divine Oracles for many medicines. Moreover, the fabulous tales deviſed by Poets have given a greater name and reputation thereto, in regard of the offence committed by *Æſculapius* in raiſing prince **Hippolytus* againe to life; for which bold part of his, *Iupiter* being highly diſpleaſed, ſmote him dead with lightening. And yet for all this, Antiquitie hath not ſtaied there, but made relation of others, who were revived by the meanes of the ſaid *Æſculapius* or his art: which during the *Trojane warre, whereof the fame and bruit is more certaine, grew into much requeſt and eſtimation: and yet in thoſe daies there was no other part of Phyſick profeſſed and practiſed, but Chirurgerie: and that in the cure of wounds onely. But in the age enſuing, and for many a yeare after, wonderfull it is, in what obſcuritie this noble ſcience lay dead, and as it were buried in darkeneſſe and oblivion, even untill the famous Peloponeſiacke war: for then aroſe *Hippocrates*, who revived and ſet on foot againe the auncient practiſe of *Æſculapius*, ſo long fore-let: and being borne in Coos, a renowmed and wealthie Iſland, altogether devote and conſecrated to *Æſculapius*, he made an extract of all the receits, which were found written in the temple of the ſaid god (for the manner was in that Iſland, that whoſoever were cured and delivered of any diſeaſe, regiſtred there upon record, the experiments of medicines whereby they had remedie;

This courſe in practiſe was called *Clinice*, ἀπὸ τῆς κλίνης, *i.* lecto, *i.* the bed or bed chãber.

* *Iatraleptice*, ἀπὸ τῦ ἰατρεύειν ἢ ἀλείφειν, *vel* ἀλειπτική, *quaſi medicina unguentaria.*

* *Empirice*, ἀπὸ τῆς ἐμπειρίας, *i. Experientia.* When Phyſicians cure by experimẽts only of medicines, withoutregard of the cauſe of the diſeaſe, or nature of the patient.

* To wit, *Apollo* & *Æſculapius.*

* *Tyndariden*: but out of *Plutarch*, & a manuſcript old copie, it ſhould bee read *Theſiden*, *i.* the ſon of *Theſeus*, which was *Hippolytus.*

* At what time and where, his two ſons, *Podalyrius* and *Machaon* practiſed Chirurgerie.

remedie, to the end, that afterward they might have helpe againe by the ſame in like caſes) and thereupon (as our countreyman *Varro* is perſuaded) after that the ſaid temple was burned, hee profeſſed that courſe of Phyſicke which is called *Clinice. Wherby Phyſicians found ſuch ſweetneſſe, that afterwards there was no meaſure nor end of fees: inſomuch, as *Prodicus*, a diſciple of *Hippocrates*, and borne in Silymbria, erecting that kind of practiſe in Phyſicke, which is called *Iatraliptice, opened by that meanes the way to enrich even thoſe, who under Phyſicians were emploied in rubbing and annointing mens bodies, yea, and brought gaine to other baſe and ſervile miniſters attending upon their cures. After them came *Chryſippus* in place: who through his much babble and pratling, wherewith hee was well furniſhed, altered the Theoricke and ſpeculative Phyſicke of *Hippocrates* and *Prodicus*, with all their principles: whome ſucceeded *Eraſiſtratus*, *Ariſtotles* ſiſters ſonne, and hee chaunged alſo many of *Chryſippus* his rules and receits, notwithſtanding hee was a ſcholler of his and brought up under him. This *Eraſiſtratus* for curing king *Antiochus*, received of his ſonne *Ptolomæus* (king after him) one hundred talents: which to begin withall, I note by the way, that you may ſee how (even in thoſe daies) Phyſicians were well rewarded for their pains and skill. But in proceſſe of time, one *Acro*, a cittizen of Agrigentum in Sicilie, much commended by the authoritie of *Empedocles* the famous naturall Philoſopher, began in that Iſland to inſtitute another faction and ſect of Phyſicians, who grounding altogether their worke and operation upon experience, called themſelves Empiriques. Thus there being diverſe ſchooles of Phyſicke, the profeſſours in every one of them entred into contention and variance, ſome ſiding this way and others taking the contrary; untill at length *Herophilus* entred the ſtage, who reproved and condemned as well the one as the other: and reduced the pulſes or beating of the arteries unto the times and meaſures in Muſicke, according to the degrees of every age. Long after it was not, but this Philoſophicall ſubtiltie of his ſect was given over and abandoned, becauſe the profeſſion therof required of neceſſitie ſo much learning and literature. And albeit that *Aſclepiades* when he began to profeſſe Phyſicke, brought with him an alteration of all that was before, yet (as I have already related) his Phyſick continued no longer than others: for *Themiſon* (a ſcholler and auditor of his) ſo ſoone as ever his maiſter was departed this life, altered quite all that hee wrote and noted at firſt from his mouth; and betooke himſelfe to a new practiſe, according to his owne head and fantaſie. But what became of it? Surely within a while after, *Antonius Muſa*, Phyſician to *Auguſtus* the Emperour, put downe that which *Themiſon* had ſet up: and that by the authoritie and warrant of the ſaid Emperor his patient, whom he delivered from a daungerous diſeaſe, *uſing directly a contrarie cure to that which had ben practiſed beforetime. Many other Phyſicians there were of great name, whome I overpaſſe: but the principall and moſt renowned of them all, were the *Caſij*, *Calpitani*, *Aruntij*, *Albutij*, and *Rubrij*, who in their time might diſpend in fees allowed them out of the princes and emperours exchequer, under whom they lived, 250000 Seſterces apeece, by the yeare. And as for *Q. Stertinius* the Phyſician, he complained of the Emperours whom he ſerved, and challenged them for that he had no greater revenues than 500000 Seſterces by the yeare from them: whereas he was able to make account, that by his practiſe in the citie he gained yearely 600000 Seſterces, being retained Phyſician to certain houſes, which he could readily name at his fingers ends. A brother of his received no leſſe in fees from *Claudius Cæſar* the Emperor. And albeit theſe brethren ſpent a great part of their wealth and ſubſtance in building ſumptuouſly at Naples, whereby they adorned and beautified that citie, yet they left behind them in goods unto their heires after them, to the worth of *thirtie millions; which was ſuch an eſtate, that unleſſe it were *Aruntius* onely, there was never any known before thoſe daies to have died ſo wealthie. After theſe men, there aroſe one *Vectius Valens*, who over and beſides his profeſſion of Phyſicke and Rhethoricke, which hee earneſtly followed, grew into a greater name, by reaſon of the familiar acquaintance hee had with *Meſſalina* the Empreſſe, wife to *Claudius Cæſar*. This minion of hers taking his time, and ſeeing how mightie he was, followed his fortunes, and erected a new ſect and practiſe of Phyſicke. But within the compaſſe of that age, and namely in the daies of the Emperour *Nero*, in commeth *Theſſalus*, who woon the name from all the Phyſicians of former times, and overthrew the precepts and doctrine of his predeceſſours; raging and faring as if he were mad, in open invectives againſt all the profeſſours of Phyſicke that ever were: and with what ſpirit, pollicie, wit, and dexteritie he performed this, it may be gathered ſufficiently by this one argument (if there were no more) that upon his ſepulchre or tombe, which remaineth at this day to be ſeen in the high way

or

G H I K L M

* *i.* Chamber-Phyſicke. So called, becauſe hee viſited his patients lying ſicke in bed.

* The manner of maintaining of health, and curing diſeaſes by frictions & outward application of oiles and ointmẽts.

* Who wroght by reaſons and rules, & thereupon were called *Rationales*, and *Dogmatici*.

* *Quia calida fomenta non proderant, frigidis curari coactus, auctore Antonio Muſa.* Sueton. *in vita Octav. Auguſt.*

* *Seſtertium trecẽties*, as *Budæus* readeth.

* He reduced Phyſicke into a Method: and from him deſcended the ſect called *Methodici*.

A or cauſey Appia, he triumphed over them all, and entituled himſelfe by the name of *Iatronices. And in very truth, never marched there plaier to the ſtage, or coach driver to the publick cirque for to run a race, better attended and with a greater traine of followers than hee when hee paſſed along the ſtreets: and yet *Crinas* of Marſiles put him downe and outwent him farre in credit and authoritie: and that by the meanes of a twofold skill and knowledge wherein hee was ſeene: For beſides his ordnarie profeſſion of Phyſicke, he ſhewed himſelfe more warie and ceremonious in all his practiſe than any other before him by reaſon of the deepe inſight that he had in the Mathematickes; obſerving the courſe of the ſtarres, chuſing good daies and houres, and going ever by his Almanakes and Ephemerides, whenſoever hee miniſtered unto his patients, inſomuch, as in their very diet he was ſo preciſe, that hee would not allow them to eat or drinke but with great
B regard of times and ſeaſons. Whereby he grew to ſuch wealth, that of late he bequeathed by his laſt will and teſtament *ten millions of Seſterces unto his native citie Marſils toward the fortifications thereof, beſides the walls that he cauſed to be built and emmanteled about other towns, which coſt him little under the foreſaid ſumme. Whiles this *Crinas*, with ſuch others as himſelfe, ſeemed with their Aſtrologie to commaund the courſe of the deſtinies, and to have mens lives at their own diſpoſition, all on a ſuddain one *M. Charmis*, a Marſilian likewiſe, put himſelf forward and entred the citie of Rome, who not onely condemned the former proceedings of the auncient Phyſicians, but alſo put downe the baines and hot houſes: he brought in the bathing in cold water, and perſuaded folke to uſe the ſame even in the middeſt of Winter: nay, hee feared not to give direction unto his ſicke patients for to ſit in tubs of cold water. And I aſſure you, my ſelfe
C have ſeene auncient Senatours, ſuch as had been Conſuls of Rome, all chilling and quaking, yea and ſtarke againe for cold, in theſe kind of baths: and yet they would ſeeme to endure the ſame, to ſhew how hardie they were. And verely, there is a Treatiſe extant of *Annæus* *Seneca*, wherein he approveth highly of this courſe. Neither is it to be doubted, but ſuch Phyſicians as theſe, who having woon credit and eſtimation once by ſuch novelties and ſtrange deviſes, ſhoot at no other marke but to make merchandiſe and enrich themſelves even with the hazard of our lives. And
3 hereupon come theſe lamentable and wofull conſultations of theirs about their patients, wherin you ſhall ſee them ordinarily to argue and diſagree in opinion, whiles one cannot abide that another mans judgement ſhould take place, and ſeeme to carie away the credit of the cure. From hence alſo aroſe that Epitaph of his (whoſoever he was) that cauſed theſe words to bee engraven
D upon his unhappie tombe, *Turba medicorum perij*, *i.* The variance of a ſort of Phyſicians about me, were the cauſe of my death. Thus you ſee how often this art from time to time hath been altered, and how daily ſtill it is turned like a garment new dreſſed and tranſlated; inſomuch, as wee are caried away with the vaine humor of the Greekes, and make ſaile as it were with the puffes of
3 their proud ſpirit: For ever as any of theſe new commers can venditat and vaunt his owne cunning with brave words, ſtraightwaies we put our ſelves into his hands, and give him power to diſpoſe of our life and death at his pleaſure; and without further regard, are as obedient to him as a ſouldiour to his captaine and generall of the field. A ſtraunge matter that we ſhould ſo do, conſidering how many thouſands of nations there be that live in health well ynough without theſe Phyſicians, and yet I cannot ſay altogether without Phyſicke. Like as the people of Rome alſo
E (notwithſtanding the Romanes were ever knowne to be forward ynough to entertaine all good arts and diſciplines) continued for the ſpace of ſix hundred yeares and above after the foundation of their citie, and knew not what a Phyſician meant, but afterwards they did caſt a great fanſie to Phyſicke alſo: howbeit, upon ſome little experience thereof, they were as readie to loath and condemne it, as they were deſirous before to have a taſt and triall of it. And here I think it not amiſſe in this corrupt age of ours wherein we live, to diſcover and relate certain principall examples of our auncеſtours, worthie to be noted in this behalfe.

And to begin withall, *Caſſius Hæmina*, an auncient Hiſtoriographer dooth report, That the firſt Phyſician that ever came to Rome, was one *Archagathus*, the ſonne of *Lyſanias*, from out of Peloponneſus, which was when *L. Æmylius* and *M. Livius* were Conſuls, and in the year after the
F foundation of the citie of Rome 535. And this mine Author ſaith, That hee was enfraunchiſed free denizen of Rome, and had a ſhop provided for him, ſtanding in the carrefour of *Acilius*, bought at the charges of the citie for to entertaine his patients, and therein to exerciſe his cunning. Called he was (by report) The vulnerarie Phyſician or Chirurgian: woonderfull much ſeeking and running there was after him, and none more wealthie than he at his firſt comming. But

ſoone

*i. The maiſter and conqueror of all Phyſians.

*Conties H-Ss

*Such as bath in cold water be called by *Seneca*, *Pſychroloutæ*.

ſoone after, when he was knowne once to carie a cruell hand over his poore patients, in cutting, launcing, diſmembering, and cauterizing their bodies, they quickly began to alter his name, and to tearme him the bloudie Butcher or Slaughterman: whereupon not onely all Phyſicians, but Phyſicke alſo grew into a bad name and became odious; as may appeare evidently by the monuments and bookes of *M. Cato*, a worthie perſonage, and in regard of whoſe vertues and commendable parts, his triumph and Cenſureſhip, as famous and honourable as they were, deſerve the leaſt part of his authoritie and reputation, ſo much was there in himſelfe, above the gifts and graces of Fortune. I will therefore inſert in this place, word for word, an Epiſtle of his unto his ſon *Marcus*, touching this matter, wherein hee thus writeth: *Concerning theſe Greekes (ſonne* Marcus) *I will write in place and time convenient, what I have found out and knowne by them in Athens: and namely, that it were good to looke into their bookes and read them (as it were) by the way, but in no wiſe to ſtudie upon them much and learne them throughly. I have alreadie given the attempt, and intend to convince and put downe the wickedeſt race and moſt perverſe and obſtinat kind of them. And learne this of me, as from the mouth of a true Prophet, That whenſoever this Greekiſh nation ſhall bring into Rome their Philoſophie, they will corrupt and marre all: but let them ſend once their Phyſicians hither, you ſhall ſee a greater wrecke and confuſion thereby. For I aſſure thee, they have complotted and ſworne one to another for to murder all *Barbarians by meanes of their Phyſicke. And even to effect and bring this about, they will bee fed alſo and take money; to the end, that both wee ſhould truſt them the rather, and they alſo have the better meanes to worke the feat and diſpatch folke with more facilitie. As for us, it pleaſeth them uſually to name us Barbarians, yea, and they give unto us more filthie tearms than any others, and miſcall us *Opiques. Well, remember thou once for all, that I have given thee warning of their Phyſicians, and forbidden thee to be acquainted with them.* Now *Cato*, who wrote this letter, died in the ſix hundred and fift yeare after the foundation of our citie, when himſelfe was foureſcore yeares old and five: wherby a man may ſee that he wanted not grounded knowledge when he delivered this ſpeech unto his ſonne; for he had both the practiſe of former times in publicke affaires, and age ſufficient of his owne to furniſh him with experience of privat examples. What ſay we then to this reſolution of his? Are we to judge and beleeve that he hath condemned therby a thing ſo neceſſarie and profitable as Phyſicke is? God forbid: For himſelfe ſetteth downe a little after, what Phyſicke and what medicines both hee and his wife were acquainted with, and by meanes whereof they came to bee ſo aged as they were: and thoſe were no other (verely) but the uſe of Simples, whereof we now are in hand to treat. He ſaith moreover and profeſſeth, that hee hath made one Treatiſe expreſſely, containing certaine receits for the cure of his ſonne and ſervants, and for the preſervation of their health: the which I have not omitted, but diſperſed here and there, according to the occurrences of accidents and diſeaſes of ſundrie ſorts, whereof I have had ſome occaſion to ſpeake of, & ſtill ſhall have more. Wherby it is plain, that our ancient forefathers blamed not the thing it ſelfe, I meane Phyſicke, and medicines; but the art and cunning of Phyſicians, who had the handling thereof. And moſt of all, they held off and were afraid to entertaine thoſe amongſt them, who ſought ſuch exceeding gaines for their handie worke, eſpecially where they endaungered their lives withall. And that they made ſome account of Phyſicke, may appeare by this, that when they received *Æſculapius* as a cannonized god into their Kalender, they built one temple for him without the cittie of Rome, yea, and the ſecond, which in his honor they erected, was ſituat within the Iſland apart from other buildings. Alſo at what time as by vertue of an edict all other Greekes were baniſhed Italie, Phyſicians were excepted; and that was many a yeare after *Cato* his time. And here by the way, one word will I ſpeake to the honour of our Romanes for their ſingular wiſdome and providence, namely, That howſoever they are growne to good proofe and be accompliſhed in all other arts and profeſſions of the Greeks, yet their gravitie hitherto hath beene ſuch, as they would not give themſelves to the practiſe of this onely Science. And notwithſtanding the exceeding wealth that accrueth by Phyſicke, yet very few or none of our naturall Romane citizens have medled therewith. And thoſe alſo that have betaken themſelves unto it, preſently have forſaken their native language and gone to the Greek tongue. For this opinion verely there is of this art, That if the profeſſors therof handle it in their vulgar and mother tongue, or otherwiſe in any other than Greeke, all the authoritie, grace, and credit thereof is loſt, even with thoſe that be altogether unlearned and know not ſo much as the Greeke Alphaber. See the nature and fooliſh propertie of our countreymen, to have leſſe confidence and truſt in thoſe things which concerne their life and health, if they bee intellegible and

delive-

*That is to ſay all nations but themſelves.

* *Opici*, were a certain people of Italie, infamous for their unhoneſt life and filthie language, *quaſi* αἰσχροποιοὶ καὶ αἰσχρολογοι.

* Why the tẽple of *Æſculapius* ſtood without the citie of Rome? See *Plutark* 94 *Quæſtionum Romanorum.*

A delivered to their capacitie; than in others, which they underſtand never a whit! And hereupon verely it is come to paſſe, that the art of Phyſick hath this peculiar gift and priviledge alone, That whoſoever profeſſeth himſelfe a Phyſician, is ſtraightwaies beleeved, ſay what he will: and yet to ſpeake a truth, there are no lies dearer ſold, or more daungerous than thoſe which proceed out of
3 a Phyſicians mouth. Howbeit, we never once regard and look to that, ſo blind we are in our deepe perſuaſion of them, and feed our ſelves each one in a ſweet hope and plauſible conceit of our health by them. Moreover, this miſcheef there is beſides, That there is no law or ſtatute to puniſh
1 the ignorance of blind Phyſicians, though a man loſt his life by them: neither was there ever any man knowne, who had revenge or recompence for the evill intreating or miſuſage under their hands. They learne their skill by endaungering our lives: and to make proofe and experiments
B 2 of their medicines, they care not to kill us. In a word, the Phyſician onely is diſpenſed withall, if he murder a man: ſo cleare he goeth away with impunitie, that none ſo hardie as once to twit or challenge him for it. But ſay that one bee ſo bold as to charge them with any untoward dealing; out they crie preſently upon the poore patients, at them they raile with open mouth, they are
3 found fault with for their unrulineſſe, diſtemperature, wilfulneſſe, and I know not what: and thus the ſillie ſoules that be dead and gone, are ſhent and bear away the blame. The decuries or bands at Rome of thoſe knights which are deputed and called Iudges, are not choſen but by an ordinarie triall and examination of their eſtate, qualitie, and perſon; and the ſame by the principall of that order and degree, both taken and approoved: ſtreight inquiſition there is made of their demeanure from houſe to houſe; of their parentage alſo, yea and true information given to the ele-
C ctors before they can be choſen. Mint maiſters, ſuch as are to give their judgement of money, and the touch of coine, be not taken hand over head: but if any be more skilfull than others therin, they are ſent for (rather than to faile) as far as from Calis and the ſtreights of Gilbretar. And for to pronounce ſentence as touching the baniſhment of a Romane citizen, the five deputed or elected delegats (named Quinqueviri) had no warrant or decreed paſſe before 40 daies were expired. But for theſe Phyſicians, who are the judges themſelves to determine of our lives, & who many times are not long about it, but give us a quick diſpatch and ſend us to heaven or hell; what regard is there had, what enquirie and examination is made of their qualitie and worthineſſe? But ſurely, well ynough are we ſerved, and we may thanke none but our ſelves, if we come by a ſhrewd turne, ſo long as there is not one of us hath any care or deſire to know that which is good for his
D life and health. We love to *walke (forſooth) with other mens feet. *Wee read, wee looke by the eyes of others: we truſt the remembrance of another when we ſalute any man: and to conclude, in the very maine point of all we commit our bodies and lives to the care and induſtrie of others: No reckoning is there now made of the riches and treaſure of Nature: but the moſt precious things indeed which ſerve for the maintenance and preſervation of health and life, are utterly rejected and caſt away: No account make we of any thing and thinke our owne, but to live in pleaſures and daintie delights. I will not leave my hold of *M. Cato*, whom I have oppoſed as a ſhield and buckler againſt the envie and ſpight of this ambitious and vaine-glorious art: neither will I give over the protection of that honourable Senat which hath judged no leſſe: and that without catching advantage at the ſinfull pranks & leud parts which are committed and practiſed under
E the pretence of this art, as ſome man haply would look that I ſhould ſet them abroad. For to ſay
1 2 a truth, is there any trade or occupation goeth beyond it for poyſoning? that is the cauſe of more gaping and laying wait after wils and teſtaments, than this? What adulteries have beene
2 committed under the colour hereof, even in princes and emperours pallaces? As for example, *Eudemus* with *Livia* the princeſſe, and wife to *Druſus Cæſar*: *Valens* likewiſe with the queene or empreſſe abovenamed, *Meſſalina*. But ſay that theſe crimes and odious offences are not to be imputed unto the art it ſelfe, but rather to bee charged upon the perſons, I meane the corrupt and leaud profeſſours thereof: yet ſurely I am of this beleefe, that in regard of theſe enormities, *Cato* was as much afraid of the entrance of Phyſicke, as of ſome Queene into the cittie of Rome.
F For mine owne part, I meane not to ſay ought of their extreame avarice; of the merchaundiſe, ſpoile, and havocke that they make when they ſee their patients in daunger of death, and drawing to their end; nor how high they hold (as it were in open market) the eaſement and releaſe of the ſicke mans pains, whiles he is under their hands; ne yet what pawnes and pledges they take as earneſt of the bargaine, to diſpatch the poore patient out of the way at once; and laſtly, of their hidden ſecrets and paradoxes, which forſooth they will not divulge abroad, but for ſome round ſumme

*In this place he caſteth in the Romanes teeth, their *Leſticarij*, *Anagnoſtæ*, and *Nomenclatores*.
*Agnoſcimus, ἀναγνῶσται, μνήμονες.

ſumme of money. As for example, that a cataract or pearle in the eye is to bee couched rather G
and driven downe by the needle, than quite to be plucked forth. Wherby it is come to paſſe, that
it is a very good turn & the beſt for us (as the caſe ſtandeth) that we have ſo great a number of ſuch
murderers & theeves in the Commonwealth: for I aſſure you it is not long of any ſhame and ho-
neſtie (whereof there is none in them) but their malicious æmulation, being ſo many as they are,
that the market is well fallen, and the prices come downe of their workmanſhip. Notorious it is,
that *Charmis* the abovenamed Phyſician that came from Marſiles, bargained with one patient
that he had, to have two hundred thouſand Seſterces for his cure, and yet hee was but a ſtraunger
and a provinciall inhabitant. Alſo as well knowne it is, that *Claudius Cæſar* upon a condemnation
and judgement, tooke at one time by way of confiſcation, one hundred thouſand Seſterces from
one *Alcontes*, who was no better than a Chirurgian or wound-healer: who beeing confined into H
France, and afterwards reſtored, gathered up his crums again and got as much within few yeares.
I am content alſo, that theſe faults ſhould bee laid not upon the art but the men that profeſſe it:
Neither verely doe I meane to ſhew and reprove the baſe, abject, and ignorant ſort of that crew:
nor how little order and regiment they obſerve in the cure of diſeaſes, or in the uſe of baines and
hot waters: how imperiouſly they preſcribe otherwhiles to their patients moſt ſtreight diet: and
again, when they are readie many times to faint & die under their hands for want of ſuſtenance,
how they be forced to cram them as it were, and give them meat upon meat, oſtentimes in one
day, before they have digeſted the former viands. Moreover, how they doe and undoe, altering
the manner and courſe of their proceedings a thouſand waies, miſliking and bethinking them-
ſelves after they have done a thing: making a miſh maſh and mingle mangle in the kitchin of I
thoſe victuals which they ordaine for their poor patients: beſides a deale of mixtures and ſophi-
ſticat compoſitions of drugs and ointments. For there is no ſuperfluitie tending unto vain plea-
ſures and wanton delights that hath overpaſſed their hands. And ſince I light upon the mention
of theſe drougs and ſpices, for mine own part I am verely perſuaded, that our auncеſtours & fore-
fathers were nothing well pleaſed with the bringing in of ſuch forraine wares, which bear ſo high
prices and are extreame deare: and that *Cato* never thought of theſe drougs and mixtures, nor
foreſaw theſe corruptions by them occaſioned, when hee blamed ſo much and condemned this
* *i.* Treacle. art of Phyſicke. Yet ſee what account there is made of a compoſition called *Theriall, deviſed
onely for exceſſe and ſuperfluitie: Compoſed it is of diverſe ingredients farre fetched and deare
bought: whereas Nature hath beſtowed upon us and preſented to our eyes ſo many wholeſome K
ſimples, and every one of them by it ſelfe medicinable and ſufficient. Moreover, another antidot
and confection there is, conſiſting of no fewer than four and fiftie ſundrie ſorts of drougs and in-
gredients, all of diverſe weights, and ſome of them are preſcribed to carie the poiſe preciſely of
the ſixtieth part of one denarius or dram. Now would I gladly know what god he was (for ſurely it
paſſeth the wit of man thus to diſpenſe the ingredients, & calculat their vertues, to a ſingle ſcru-
ple) that taught firſt this ſubtile and intricat compoſition? By which it appeareth manifeſtly,
that this geere bewraieth onely a vaine oſtentation, and all to give a glorious and wonderfull lu-
ſtre to the art, for to make it better accepted and more vendible. And yet the very Artiſts them-
ſelves are not ywis ſo skilfull, as to know that whereof they make profeſſion. For I my ſelfe have
ſeene theſe that goe for Phyſicians, put commonly into their medicines and receits *quid pro quo*, L
* *Sanguis Draconis.* Sang-dragon, *Lachrymæ ſpecies*, a kind of gum. * *Metallicum*, a minerall Vermillion. and namely, in ſtead of the Lidian *Cinnabaris, *Minium; which is no better than a very poy-
ſon, as I will prove and ſhew hereafter in my Treatiſe of Painters colours: which errour proceе-
deth onely from this, that they are not well ſeene in Grammar, nor in the proper ſignification of
words. But theſe and ſuch like errours touch and concerne the health of every one in particular.
As for thoſe abuſes in the art of Phyſick, which *Cato* feared, foreſaw, and would have prevented,
they be ſuch as are nothing ſo hurtfull and daungerous as the reſt, and indeed ſmall matters in
the opinion of man: and ſuch as the principall profeſſours and maiſters of this art doe avow and
confeſſe among themſelves. Howbeit, even thoſe deviſes, as harmeleſſe as they ſeeme to be, have
been the overthrow of all vertue and good manners in our Romane State, I meane thoſe things
which wee doe and ſuffer in our health: our exerciſe of wreſtling, our greaſing and annointing M
with oile for that purpoſe, brought in forſooth and ordained by theſe Phyſicians for to preſerve
our health. And what ſhould I ſpeake of their drie ſtouves, hot houſes, and ardent baines, which
they would beare men in hand to be ſo good for digeſtion of meat in their ſtomackes? Yet could
I never ſee any, when he came forth of them upon his own feet, but he was more heavie & found
himſelfe

himselfe feebler than before he went in: and as for those who have been more observant of their rules than the rest, and wholly governed by them, I have known many such carried out for dead, or els extreame sicke. To say nothing moreover of the potions and drinks ordained by them, to be taken in a morning fasting, for to vomit and scoure the stomack thereby; and all to make way for to quaffe and carouse againe upon it more lustily. I forbeare also to write of their rosins and pitch-plastres devised by them for to plucke away and fetch off the haire where Nature hath ordained it to grow, wherby they would seeme to effeminat our men. I bash also to speak how even our women have prostituted their nakednesse and privities unto them, by occasion of these their wanton devises. In summe, conclude we may, that considering these enormities and corruptions which have crept into our life, by nothing more than by the means of physicke, *Cato* was a true prophet indeed, and his oracle is verefied and fulfilled every day, when he said, That it was sufficient to looke cursorily into the writings and wittie devises of the Greeks, without farther studying thereupon and learning them throughly. Thus much I thought good to speake, in justification of that Senat and people of Rome, who not without great reason continued 600 yeeres without the entertainment of Physicians; and against that Art, which of all others is most daungerous and fullest of deceit: in regard whereof, it hath bleered the eies of good men, and they be those who have given credit and authoritie therunto. And withall, thus much may suffice to meet with the fond opinion and foolish persuasion of those, who are ravished and caried away with a conceit, esteeming nothing good for the health of man, but that which is costly and pretious. For certes I doubt not, but some there be who will loath these receits taken from divers beasts, wherof I shall have occasion to speake hereafter. But I comfort my selfe againe herein, That *Virgil* disdained not to name the verie pismires and the weevils; * blind beetles also delighting in darkenesse, and their nests wherein they keepe; of which he wrote, notwithstanding hee was not urged thereto upon necessitie. Neither did *Homer* thinke it improper, to * mingle the description of a shrewd and unhappie flie, even with the heroicke battails of the gods: ne yet dame Nature, who hath brought forth and made man, thought it any disparagement to her majestie for to engender also these fillie and small creatures. And therefore let every man consider their vertues, properties, and effects, and not regard so much themselves. To come then unto those things that are most common and knowne, begin I will at sheeps wooll, and birds egs, to the end that by that means due honour may be yeelded to the chiefe and principall of all others, as it doth appertain. Howbeit, I must of necessitie speake of some other things by the way as occasion shall be offered, notwithstanding the place be not so proper and fit for them. Neither wanted I means sufficient to furnish this worke of mine with many gallant matters and pleasant discourses, if my delight and mind had been to looke after any thing els but a plaine and true narration, according to my first desseine and intention: For well I wot, that I might have inserted here and there, the rare receits which are reported to be made of the ashes of the bird Phœnix, and her nest; but that I know all to be meere fabulous, howsoever they carrie a pretence of truth. Besides, I count it a verie mockerie and no better, to deliver unto the world those medicines which are not to be made but once in the revolution of a thousand yeers.

* *Lucifugis congesta cubilia blattis.*

* *Iliados 4.*

Chap. 11. *The vertues and properties of Wooll.*

THe auncient Romans attributed unto Wooll great authoritie, & had therein a certain religious and reverent opinion of holinesse: in so much as new wedded wives by an old custom and ordinance at Rome, were wont with great ceremonie to adorne and bedeck with wooll the side-posts of the dore or entrie into their husbands house, upon the mariage day. Now besides the use of wooll for decent apparell, & defence against cold weather; that which is unwashed and full of the sheeps swet serveth in physick, and is a soveraigne remedie for sundrie accidents, being applied with oile, wine, or vinegre, according as need requireth, either in mitigation of pain, or mordication and corrosion; and according as our purpose is, to bind, or to enlarge and open any part: and namely, it is emploied in dislocations of members, and griefe of sinews, if it be laid unto the affected place, well sprinkled and wet eftsoons with the said liquors, that it might be alwayes moist. But more particularly, for disjointed members, some put thereto a little salt: others take rue, and when they have stamped it, incorporat the same with some convenient grease, & so apply it in maner of a cataplasme upon sweatie wooll: after which manner, it is good for contusions or bruses and swellings. Also it is said, that if the teeth & gumbs be well rubbed with such wooll and

honey mingled togither, it will cauſe the breath to bee the ſweeter: a ſuffumigation or perfume therof, is ſingular for the frenſie: applied with the oile of roſes, it ſtancheth bleeding at the noſe: or otherwiſe if the ears be well ſtopped therewith, and a little garlick conveied withall thereinto. Moreover, it is laid unto inveterat ſores with good ſucceſſe, ſo that honey be put thereto. Soake wooll in wine, vinegre, or cold water and oile, and then wring and preſſe the ſame forth, it healeth any wound. The wooll of a ram well waſhed in cold water, and afterwards ſteeped in oile, is ſingular for womens infirmities, and particularly allaieth the inflammation of the matrice: but in caſe it be falne downward and readie to ſlip out of the bodie, a perfume therof received beneath, ſtaieth the ſame and keepeth it up. The fattie wooll of a ſheep being either applied, or put up in maner of a peſſarie, draweth down the dead infant out of the mothers belly: and yet the ſame otherwiſe repreſſeth the immoderat flux of womens fleurs. If it be couched hard and cloſe within the wound occaſioned by the biting of a mad dog, it ſerveth to great purpoſe; but with this charge, That it be kept bound thereto & not removed untill the ſeventh day be paſt: applied unto whitflaws and impoſtumations about the naile-roots, with cold water, it cureth them: the ſame, if it be dipped and ſoked, in a medly made of ſalnitre, brimſtone, oile, vinegre, and tar, all diſſolved togither and readie to boile, and ſo laid as a cataplaſme to the loins as hot as the patient can abide it, changing it twice a day, appeaſeth the pain of thoſe parts. Take the greaſie wooll of a ram, bind therewith very hard the joints of the extreame parts, as namely the fingers and toes, you ſhall ſee how it will ſtaunch bleeding. [Howbeit, note this, that the wooll growing upon the ſheeps neck, is ever beſt and moſt medicinable: and if we regard the countrey from whence it commeth, that of Galatia, Tarentum, Attica, and Miletum, is alwaies reputed better than any other.] Furthermore, the greaſie or ſweatie wooll of a ſheepe, is proper to be applied unto any raw places where the skin is fretted off, to contuſions, bruiſes looking black and blew, ſtrokes, cruſhes, ruſhes, rubs, and gals; as alſo for them who are tumbled downe from ſome high place; for the head-ach and other pains; and laſtly, for the inflammation or heat of the ſtomack, being decently applied with vinegre and oile roſat. Reduced into aſhes and uſed as a liniment, it is ſingular for them that be cruſhed or ſquezed, wounded, burnt, or ſcalded. This aſhes entreth alſo into colyries & eyeſalves: it ſerveth for hollow ulcers & fiſtuloes: like as for the ears when they run filthie matter. For theſe purpoſes above ſpecified, ſome ſheare it from the ſheeps backe; others chuſe rather to plucke it: and when they have clipped off the upmoſt parts or forced, lay it forth to drie: they toze and card it alſo, and then beſtow it in an earthen pot not fully baked, which they beſmeare all over with honey, and ſo burne and calcine it to aſhes: others put under, ſmall chips or ſlices of torchwood, and lay certain beds or courſes therof between the locks of wooll; and after they have beſprinkled the ſame with oile, ſet all on fire: which done, the aſhes that come thereof they put into little pans or veſſels, & poure water thereupon: and after they have well ſtirred the ſaid aſhes with their hands, they ſuffer it to reſt and ſettle downe to the bottom; which they do oftentimes, & alwaies chaunging the water untill ſuch time as a man may perceive the aſhes at the tongues end to be ſomewhat aſtringent, but not biting: and then they lay up this aſhes for their uſe. A great* ſcourer and cleanſer this is, and therefore moſt effectuall to mundifie the eye-lids.

Moreover, the very filthie excrements of ſheep, & the ſweat ſticking to the wooll of their flanks, between their legs and the concavities thereabout (which they call Oeſypum) is thought to have infinit number of medicinable properties: but the beſt Oeſypum ſimply is that which commeth from the ſheep bred about Athens. This ſwet or filthie excrement, call it what you will, is prepared and ordered many waies; but the principall is that which is gathered from the wooll newly taken from between the legs and ſhoulders of the ſheepe, and preſently tozed ready for to be carded: others are content to take the ſweatie filth of any wooll, ſo it bee freſh plucked or clipped from the ſheep; and whether it be the one ſort or the other, they let it diſſolve over a ſoft fire in a pan of braſſe: which done, they ſet it a cooling, and take off the fat that ſwimmeth aloft, & gather it into an earthen veſſell. As for the reſt which remained behind of the firſt ſtuffe, they ſet it upon the fire again, that the fatneſſe may boile forth of it: after this, the fat that floted above, as well the former as the latter, they waſh in cold water, and let* it drie in a linnen cloth, expoſe it to the heat of the Sun, that it may frie therein untill it be blanched white and looke pure and cleare: then is it put up in tin boxes or pewter pots, and reſerved for uſe. The true marke to know which is good Oeſypum, after it is thus tried and putrified, is thus: If it have a ranke ſmell ſtill of the firſt filthines which it had from the ſheepe: alſo, if when you rub it with your hand in water, it melt not, but in

* *Vis ejus ſmectica eſt*, out of *Dioſc.* not *ſeptica*, as is commonly read: for how can it be corroſive, if it bite not at all.

* *Siccatur*, or rather *Saccatur*, ſ. ſtreine it through a linnen bag.

the

A the working look whitiſh like unto ceruſe or white lead: a ſoveraigne thing it is for the inflammation of the eies: for the hard callofities alſo that grow upon the eyelids. Some there be who torrifie the foreſaid greaſie wooll into an earthen pot or pan, ſo long untill it have forgone and yeeldeth forth all the ſweat & fattineſſe; the which they ſuppoſe to be the beſt Oeſypum that is for any eroſion, fretting, or hardnes of the eyelids: or to cure the ſcabs and ſores, yea, and the watering of the angles of the eies. Well, this fattie excrement thus clarified, incorporat with gooſe greaſe, cureth not only the ulcers of the eyes, but of the mouth alſo and members of generation: the ſame tempered with Melilot and Butyr, maketh an excellent liniment for all inflammations of the matrice: the chaps alſo and ſwelling piles or biggs in the fundament. Many other vertues it hath, which I will digeſt into their ſeverall places, and ſpeak of them accordingly. As touching the filthy excre-
B ments hanging to ſheeps tailes, and baltered together into round pils or bals, if they be dried and ſo beaten to pouder, are ſingular for the teeth, yea, though they ſhooke in the head, if they be rubbed therwith; alſo for the gums, though there were gotten into them a cankerous ſore. Now concerning fleece wooll that is pure and waſhed, either by it ſelfe alone, or elſe with ſulphur vif, it is paſſing good to be applied unto any place in paine, whereof the cauſe is not evident and known: which alſo being reduced into aſhes, is ſoveraign for the accidents which happen unto the privie parts. In ſum, of ſuch vertue is wooll, that there is no cataplaſme, pulteſſe, or plaſtre, in maner applied to a grieved place, but the ſame hath wooll laid over it. The ſame alſo hath a ſingular vertue above all things, to recover the appetite of meat in the very ſheepe that bare it, in caſe they have loſt their ſtomacks & feed not: for plucke the wooll that groweth to their tailes, and therewith tie
C the ſame as hard as is poſſible, you ſhall ſee them preſently fall to their meat: But it is ſaid withall, that the reſt of the tail which is underneath the ſaid knot where it was bound, wil quickly become mortified, and die.

* *Doloribus cæcis.*

Chap. XIII.

The nature and properties medicinable of Eggs.

GReat ſocietie and affinitie there is between wooll and egs; in this regard, That if they be applied both togither in a frontall to the forehead, they repreſſe all violent fluxes & rheums falling into the eies: but you need not take for this purpoſe any wooll that hath ben dreſſed or cleanſed with the *Fullers ſcouring weed: neither is it required, that in this caſe there ſhould be
D uſed any more but the white of an egg, and the ſame ought to be infuſed or ſpread upon the foreſaid wooll, with the powder of frankincenſe: and in very truth, the white of an egg alone, if it be inſtilled or dropped into the eies, is ſufficient to reſtreine the flux of humors thither, yea and to coole any hot rheume or inflammation incident to them. Howbeit, ſome thinke it better to put ſaffron thereto, and uſe this gleere or white of the egg beaten, in ſtead of water, for all collyries or medecins appropriat to the eies. The white of an egg incorporat with freſh butyr, is ſo ſoveraign for the red and bloudſhotten eies which put little children to paine, as none in the world better; nay there is not in a maner any other uſed in that caſe. The ſame beaten and tempered with oile, aſſuageth the heat of S. *Anthonies* fire, if there be leves of beets laid upon the place and kept bound thereto. The white of an egg incorporat with ſalhormoniacke finely pulverized, doth ex-
E tend and turne backward the haires of the eie-lids which grow inward into the eies: the ſame with pine nut-kernels and a little hony mingled withall, and ſo reduced into a liniment, taketh away the pimples that ariſe in the face: annoint the viſage therewith, it will keepe it from being ſun-burnt. If one be ſcalded with hot water, lay quickly an egg to the place, yelke, white, and all togither, it will take out the fire and preſerve it from bliſtering: ſome put thereto barley meale and a little ſalt: but ſay the place be bliſtered and exulcerat with any burne or ſcald, parched barley with the white of an egg and ſwines greace, is an excellent medecine to heale the ſore: and the ſame cataplaſme is much uſed in the cure of the hæmorrhoids, piles, and chaps of the fundement; and eſpecially in children, for to reduce the tiwill into the right place, if it hang forth: for the rifts and chaps which appeare in the feet, take the white of an egg ſodden or roſted, the weight of two de-
F niers of ceruſe, as much of letharge of ſilver, and myrrhe, with a little quantitie of wine; incorporat all togither into a cataplaſme, there is not a better medecine for them: and for the inflammation called S. *Anthonies* fire, the white of an egg beaten togither with Amydum or ſtarch-floure, is right ſoveraigne. It is ſaid moreover, that the white of an egg is very good to congluti-nat or ſowder any wound, yea and to expell the ſtone and gravell out of the bodie.

* *Radicula*, called before *Struthium*.

The yelke of an egg ſodden untill it be hard, and tempered with a little ſaffron, with hony alſo and breſt-milke, and ſo reduced into a liniment, allaieth the pain of the eies, if they be annointed or fomented therewith: or if the ſame be incorporat with oile roſat and honyed wine, & ſo ſpred upon a quilt of wooll and applied, it worketh the ſame effect. Others there be who take the yelke of an hard egg, mix therewith the powder of perſley ſeed, adding thereto fried barly meale dried, and honied wine; with which compoſition they annoint the ſore eies. Alſo the yelke of a ſoft egg alone, ſupped off and ſwallowed downe cleare that it touch not the teeth by the way, is ſingular good for thoſe that bee troubled with the cough, with the rheume or catarrhe that hath taken a way to the breſt or pectorall parts; yea and the roughneſſe of the throat and pipes which cauſeth hoarſeneſſe: but principally if one be bitten with the worme or ſerpent called * Hæmorrhois, let him both ſup off the yelke of an egg raw or ſoft, and apply it alſo to the wounded place. It helpeth the infirmities of the reins; it healeth the fretting, excoriation, and ulcers of the bladder; yea and cureth thoſe that reach and caſt up bloud. Five yelks of egs ſupped off raw in one hemin of wine, are ſingular good for the dyſenterie or bloudie flix, and namely, with the powder of the ſhels from whence they came, the juice of poppie, and a little wine withall. For the flux of the belly proceeding from a feeble ſtomacke, they uſe to give the ſaid yelks of eggs raw, with as much in weight of good and full raiſins, and the rind of a pomegranat; with direction to the patient, for to take this medicine three daies togither by even portions, and no more one day than another: for which purpoſe alſo, there is another way to uſe them; namely, to take three yelks of an egg, to incorporat the ſame in as many ounces of honey and old lard, putting thereto three cyaths alſo of good old wine; and ſtamping all togither into one compoſition untill ſuch time as it be reduced to the conſiſtence or thickneſſe of honey; of which the patient muſt drinke as need requireth, with water, the quantitie of an hazle nut at a time. Alſo it is good to lay three egs in vinegre for three daies togither, and upon the fourth day to eat them, for the foreſaid flux of the ſtomacke: after which manner it availeth much to take them againſt the oppilations & hardneſſe of the ſplene: but to ſuch as are ſubject to caſting and reaching bloud upward, Phyſicians preſcribe to take them in three cyaths of new wine. Some uſe the yelks of egs that have been old kept, for to reduce the skin that is blacke and blew to the freſh and lively colour againe; but they incorporat the ſame in honey with bulbe roots: the ſame ſodden and drunke in wine, doe repreſſe the immoderat flux of womens months: but applied raw with oile and wine, they diſcuſſe & reſolve the ventoſities within the matrice. Incorporat with oile roſat & gooſe greace, they are good to be applied unto the nape of the necke for the cricke and paine thereof: beeing roſted againſt the fire hard, and ſo preſently applied hot unto the ſeat, they are good for the griefs and accidents of the fundement: but more particularly for the ſwelling piles and bigs riſing in thoſe parts, they would be laid too with oile of roſes. Beeing ſodden in water untill they bee hard, they ſerve verie well for any burne or ſcald; with this charge, That preſently the aſhes of the ſame eg-ſhells calcined upon burning coles, be applied to the place, and then to annoint the ſame with the foreſaid yelks and oile roſat mixed togither. Now it falleth out ſometime, that egs be all yelke within, and have no white at all; namely, when the hen hath couved and ſitten over them three daies togither, and then be taken away from under her; and ſuch kind of egs the Greeks call Schiſta.

Take the egs from under the hen when they be full of chicken, a little before they ſpring and the chicke be hatched, togither with halfe as much of gall-nuts, and give the ſame for to ſtrengthen a feeble and weake ſtomacke; with this caution, That the patient have eat nothing in two hours before. And ſome do adviſe for the dyſenterie or bloudie flix, to give the ſaid chickens ſodden egg and all togither, putting thereto one hemine of auſtere or ſharpe wine, and an equall quantitie of oile and parched barley groats drie. The fine pellicle or skin that is within the egg-ſhell, beeing taken from it (whether the egg be raw or ſodden it skilleth not) healeth the chaps that are in the lips, if it be appplied thereto. The aſhes of an egg-ſhell drunke in wine, ſtoppeth the iſſue of bloud guſhing out at any part: but the ſame ought to be burnt or calcined without the pellicle or skin aforeſaid; and ſo it makes an excellent dentifrice alſo to cleanſe and ſcoure the teeth white: a liniment made with the ſaid aſhes and myrrhe togither, ſtaieth the ſuperfluous flux of womens terms. And here I cannot chuſe but note unto you by the way, the ſtraunge propertie and wonderfull nature that egg-ſhels have: for ſo hard compact and ſtrong they be, that if you hold or ſet an egg endlong, no force nor weight whatſoever is able to breake and cruſh it, ſo long as it ſtanderh ſtreight and plumbe upright, untill ſuch time as the head incline to a ſide

and

*Which name it hath for that it cauſeth flux of bloud at ſundrie parts.

Dalechampius would have the ſame egs to be dried and reduced into pouder, &c.

A and bend one way more than another. Egs entier and all whole as they be, [i. white, yelke, ſhell, and skin] taken in wine with rue, dill, and cumin, helpe women in hard travaile to ſpeedie and eaſie deliverance. Egs incorporat with oile & roſin of the cedar mixed togither, are ſingular good for to heale ſcabs and to kill the itch: put thereto the root of Cyclamin, [i. Sow-bread] it healeth the running skalls of the head: for thoſe that reach up purulent matter out of their cheſt, or ſpit bloud, it is good to ſup of a raw egg togither with the juice of unſet leeks, and an equall quantitie of Greekiſh wine; but firſt all muſt be warmed, before that it bee given to the patient. Againſt a cough, they ordeine egs ſodden and ſtamped togither with honey, and ſo to eat them; or elſe to ſup them off raw, with wine cuit and oile, of each a like quantitie. If a man have any ſore or ulcer in his ſecret parts ſerving for generation, it were verie good to inject one egg tempered
B with three cyaths of wine cuit, and halfe an ounce of Amylum or ſtarch-floure, preſently upon his comming forth of the bains or hothouſe. An excellent liniment there is made of ſodden egs ſtamped togither with creſſes, for the ſting or biting of ſerpents. How many means there bee whereby egs doe good as meat, there is not one but knoweth: for even in their going downe, they paſſe through any tumor and ſwelling of the throat, and with their kind heat foment thoſe parts by the way. There is not any kind of viand in the world beſides it, that nouriſheth a ſicke man without any offence or burden at all to the ſtomacke; and it may go well enough for meat and drinke both. As touching egs ſoked in vinegre, and how their ſhells may bee made ſoft and tender thereby, I have alreadie ſhewed: ſuch egs if they be wrought and knead with meale into a dough or paſt, doe make a kind of bread which is ſoveraigne for all fluxes of the ſtomack. Some
C there be who thinke it better to take theſe egs thus mollified & reſolved in vinegre, and to torrifie the ſame betweene two platters of earth; ſuppoſing that being thus prepared, they ſerved not only to ſtop a laske, but alſo to repreſſe the immoderat flux of womens monthly terms: but in caſe the ſaid fluxions be exceſſive and beyond all meaſure vehement, they are to bee ſupped off raw, with water and meale in manner of a grewell or pottage: or els the yelks may be boiled by themſelves in vinegre, untill they be hard; and then a ſecond time be fried & torrified afterwards with groſſe pepper, and in this ſort they will ſtay any looſeneſſe of the belly. And yet there is another ſingular remedie for the bloudie flix, namely, to put the meat of a raw egg in a little earthen pot that never was occupied, and to add therto as much hony as may amount to the quantitie of the egg; to the end that all be of equall proportion; then, within a while after, to temper therewith
D the like meaſure of vinegre and oile both, and to beat them all togither oftentimes that they may be well concorporat and united in one. In which compoſition, this is to bee obſerved, That the better that every one of theſe ingredients is that enter into this confection, the more excellent operation and ſpeedier remedie will enſue theupon. Others there are, who in ſtead of oile and vinegre, put in red roſin and wine, according to the former rate and proportion: howbeit they temper the ſaid medicine after another ſort; for they put in of oile, onely as much as the egg comes too, adding thereto of the pine-tree barke * two ſixtie parts of a Romane denier, and one ſixtie part of Sumach, which I called Rhus, and five oboli weight of hony; with this charge, That they be all boiled togither; and that the patient eat no other meat whatſoever for the ſpace of foure hours after. Many there be, who to cure and eaſe the wringing gripes and torments of the belly,
E take two egs and foure cloves of garlicke, which they pun and ſtampe togither; then they heat them over the fire in one hemine of wine, and give this maſh unto the patient for to drinke. To conclude, becauſe I would not willingly omit any thing that may commend egs and give grace unto them, know thus much moreover, That the gleere or liquid white of an egg with quicke-lime, maketh an excellent cement to ſowder or unite any broken peeces of a glaſſe togither: beſides, of ſuch ſtrength and efficacie they are, that neither a peece of wood no nor ſo much as any parcell of cloth wet or dipped in the white of an egg will burn, but check the violence of the fire. Howbeit, note that all which I have ſpoken of egs, is to be meant of thoſe that hens only do lay: for as touching other birds eggs, I will write in their due places; for as much as they are not deſtitute
F of many peculiar vertues and ſingular properties of their owne. Over & beſides, I will not overpaſſe one kind of eggs beſides which is in great name and requeſt in Fraunce, and whereof the Greeke authors have not written a word: and this is the ſerpents egg, which the Latins call Anguinum. For in Summer time verely, you ſhall ſee an infinit number of ſnakes gather round togither into an heape, entangled and enwrapped one within another ſo artificially, as I am not able to expreſſe the manner thereof: by the means therfore of the froth or ſalivation which they

* i. about two grains.

yeeld from their mouths, and the humour that commeth from their bodies, there is engendred G
the egg aforesaid. The priests of Fraunce called Druidæ, are of opinion, and so they deliver it, That these serpents when they have thus engendred this egg, doe cast it up on high into the aire, by the force of their hissing; which being observed, there must be one readie to latch and receive it in the fall againe (before it touch the ground) within the lappet of a coat of arms or soldiours cassocke. They affirme also, that the partie who carrieth this egg away, had need to be well mounted upon a good horse and to ride away upon the spur, for that the foresaid serpents will pursue him still, and never give over untill they meet with some great river between him and them, that may cut off and intercept their chase. They add moreover and say, that the onely marke to know this egg whether it be right or no, is this, That it will swim aloft above the water even against the streame, yea though it were bound and enchased with a plate of gold. Over and besides, these H
Druidæ (as all the sort of these magicians bee passing cautelous and cunning to hide and cover their deceitfull fallacies) doe affirme, That there must be a certaine speciall time of the moones age espied, when this businesse is to be gone about, as if (forsooth) it were in the power and disposition of man to cause the moone and the serpents to accord togither in this operation of engendring the egg aforesaid by their froth and salivation. I my selfe verely have seene one of these egs, and to my remembrance, as big it was as an ordinarie round apple: the shell thereof was of a certain gristly and cartilagineous substance, and the same clasped all about (as it were) with many acetables or concavities representing those of the fish called a Pourcuttle, which shee hath about her legs. And it is the ensigne or badge that the Druidæ doe carrie for their arms. And they hold it a soveraigne thing, for to procure readie accesse unto any princes, and to win their grace I
and favour; as also to obtaine the upper hand over an adversarie in any sute and processe of law, if one doe but carrie it about him. But see how this vanitie and foolish persuasion hath possessed the minds of men! for I am able upon mine owne knowledge to avouch, that the Emperor *Claudius Cæsar* commaunded a man of arms and gentleman of Rome, descended from the Vocantians, to be killed for no other reason in the whole world, but because he carried one of these egs in his bosome, at what time as he pleaded his cause before him in the court. This winding and mutuall enfolding of these serpents one within another, putteth me in mind of one thing worth the observation, That it was not for nought that forrein nations have ordained, that their Embassadors who had commission to treat of peace, should carrie with them a certain rod or mace wherin were pourtraied serpents winding and clasping round about it; to signifie and shew, that these K
creatures, as savage, fell, and venomous as they be otherwise, and as it were made altogither of poison, yet otherwhiles they accord and agree well enough togither: where it is furthermore to be noted, that the manner was not to represent in these maces and ensigns of peace, any furious serpents with crests upon their heads.

As touching geese and their egs, how good and profitable they are, before I enter into any discourse (for my purpose is to treat of them also in this verie booke) I cannot chuse but for the honour due unto the Comagenes, in regard of an excellent composition by them made, write first of it, being of them called Comagenum: for that also the principall and best of that kind was most used and in greatest request in Comagene, which is a region belonging unto Syria. It consisteth of goose greace, cinamon, casia or canelle, white pepper, and an hearbe called likewise L
Comagene. Now for the better mixture and fermentation of these ingredients and the whole composition, the vessell which containeth the same ought to be buried in snow: a pleasant smell it hath, and is held to be a soveraigne ointment for any through-cold and quivering fit; for convulsions, for sodaine pains whereof no evident cause is knowne; and in one word, for all lassitudes and what infirmities soever be cured by the medicines called in Greeke * Acopa: in such sort, as that it serveth not onely for an outward ointment, but also for an inward medicine. This Comagenum is made in Syria after another manner, namely of the fat or grease of birds which is clensed, tried, and purified, according as I have before said, with an addition of Erysisceptron, Xylobalsamum, the barke or young shoots of the Date tree, and sweet Calamus, of each as much as amounteth to the weight of the greace aforesaid; and all these togither must be put into wine and M
set over the fire for to siver and take two or three waulms. Now this is to be noted, that the convenient time of making it is in winter, because it will neuer jellie and grow to any thicke consistence in summer, unlesse there be * wax put into it.

* ἄκανα, so called, because they be good against lassitude or wearinesse.

* And that delaieth much the odoriferous smell.

Many other good medicines and ointments there be made of Geese, whereat I marveile as much

A much as at *Goats: for it is said, that all Summer long even unto the fall of the leafe, Geese and Ravens bee continually sicke. Finally, as touching the honour which Geese deserved and woon by discovering the skallade that the Frenchmen made into the Capitoll hill of Rome, I have written heretofore.

*For Goats are said never to be cleare of the ague.

Chap. iiii.

Medicinable receits taken from dogs and other beasts which are not tame, but wild: also from foules. Remedies against the pricke or sting of the venomous spiders Phalangia.

B VPon the foresaid occasion, for that the dogs which had the custodie of the Capitoll, barked not when the Gaules skaled the Capitoll, there is a custome yearely observed at Rome to trusse certaine *dogs to forkes, and thus as it were crucified, to hang them alive upon an Elder tree for exemplarie justice: which execution was performed between the temple of *Iuventus* and *Summanus*. But seeing I am thus light upon the mention of dogs, I must needs discourse of them more at large, and the rather, for that our aunceStours in old time observed many ceremonies about this beast. First and formost, the ancient Romans thought the flesh of sucking whelps to be so pure and fine a meat, that they used to sacrifice and offer them as an expiatorie oblation to their gods for to appease their indignation. And verely at this day they make no scruple to sacrifice a young whelpe before it be full a day old, and especially such an one as the bitch puppied the same morning: yea, and at the solemne feastivall suppers ordained for the honour of the C gods, they forget not at this day to serve up at the table certaine dishes of young whelpes flesh that sucke their dams. Moreover, that young dogs flesh was an ordinarie service at those sumptuous feasts called *Aditiales, it appeareth plainly by the testimonie of *Plautus* in his *Comædies. Certes, it is generally thought, that for the venome called Toxicum, there is not a better countrepoyson than dogs bloud. It seemeth also that this domesticall creature taught men first the manner of discharging and purging the stomacke by vomit. In summe, there are a number of other medicinable vertues in a dog highly commended, whereof I will write as occasion shall be offered in convenient place. But for this present I will proceed orderly according to my first intention and purpose.

*ἀνολδεντες, saith *Cæl. Rhodig. cap. 29, lib. 17.* such as will not barke and give warning of strangers comming

* or *Adjciales.*

* *Festus* quoteth the place in the Comædie, called *Saturio*, which is not now extãt.

D To returne againe unto the stinging of serpents, these remedies following are taken to bee effectuall, to wit, sheepes treddles and goats dung fresh gathered and boiled in wine to the consistence of a liniment, and so applied unto the place: also mice and rats splitted and so laid hot unto the wound. And verely, how basely soever men thinke of this kind of cattaile, and hold them no better than vermine, yet they are not without certaine naturall properties, and those not to be despised: but principally in regard of the sympathie betweene them and the planets in their ascent, as I have noted heretofore: and namely, considering how the lobes and filaments of their livers and bowels doe encrease or decrease in number, according to the daies of the Moons age. And these Magicians do report, That if one doe give unto hogs the liver of a mouse or rat within a fig, they will follow the partie that gave them the morcell. They say moreover, that the same E is able to doe as much in a man: but in case a cyath of oile be drunke upon it, it looseth all the vertue.

As touching Weasels, there be two kinds of them: for there bee a wild sort different from the rest in bignes, for they be smaller: and those the Greeks call *Ictides: Their gall is said to be very effectuall against the sting of the Aspis, whereas otherwise it is a very poyson it selfe. As for that kind which keepeth about our housen, wandering here & there in every corner, &*useth to carie her kitlings in her mouth too and fro every day from place to place and never resteth (as mine author *Cicero* doth write) she is an enemie to serpents, and naturally persecuteth them. Their flesh being salted, is given to the weight of one denier in three cyaths of wine, with great successe, unto those that be stung by serpents: also their maw farced with coriander seed, and kept in salt or F brine, is good for the same purpose, if it be drunke in wine. But the young kitling of the Weasell is best and most effectuall.

*Which be our Ferrets.

*Some take these for our Cats.

Other vile creatures there are besides, which for their baseness I bash to name and relate in this place; howbeit, because so many authors with one consent have so constantly commended their medicinable properties, I make it a matter of conscience to passe them over in silence: conside-

conſidering that all our medicines proceed from that conveniencie and repugnancie which is in G
the nature of all things, whereof we have ſo much ſpoken. As wee may ſee for example in theſe punies or wall lice (the moſt illfavored and filthie vermine of all other, and which we loth and abhorre at the very naming of them) for naturally they are ſaid to bee adverſative to the ſting of all ſerpents, and principally of the Aſpis: nay they are thought to be a counterpoyſon againſt any venomous thing whatſoever: and ſolke ground their reaſon hereupon, becauſe looke what day that Hens doe eat a wall-louce, the ſame day there ſhall no Aſpis have power to kill them. And it is ſaid moreover, That the very fleſh of ſuch hens as have eaten ſuch punies, is ſingular good for thoſe that be ſtung alreadie by the ſaid ſerpents. Other receits there be ſet down by our great maſters in Phyſicke, as touching this ſoule vermine: but thoſe which carie moſt modeſtie with them and have greateſt reſpect unto manhood and humanitie, are theſe; namely, to rub or annoint the H
place which is ſtung, with the ſaid wall-lice and the bloud of a Tortoiſe together: alſo to chaſe away ſerpents, with the ſmoake or perfume of them: likewiſe, if any beaſt which hath ſwallowed down horſe-leeches, doe take them in drinke, they will either kill them or drive them out, yea, and in what part ſoever they are ſettled and ſticke faſt, they will remoove them and make them to fall off. And yet ſome there be who uſe this naſtie and ſtinking creature in eye-ſalves, for they incorporat them in ſalt and womans milke, and therewith annoint their eyes: yea, and drop them into the eares with honey and oile roſat mingled together. Others there be who uſe to burne theſe punaiſes or wall-lice, ſuch eſpecially as be of a wild kind, and breed upon Mallowes, and incorporat their aſhes in oile of roſes, and inſtill them into the eares. Touching other medicinable properties which they attribute unto them, namely, for impoſtumes & botches that are broken and I
run, for the Quartane ague and many more maladies; although they give direction to ſwallow them downe in an egge, or elſe encloſed within wax or a beane, I hold them for lies, and therefore not worthie to be related in ſadneſſe. Marie I will not ſay but there is ſome probabilitie and apparence of reaſon why they ſhould put them in thoſe medicines which are ordained for the lethargie: for ſurely they are knowne to bee very proper againſt that drowſineſſe, which is occaſioned by the venome of the Aſpis: to which effect ſeven of them bee ordinarily given in a cyath of water, or but foure, if the patient be a child. In caſe of ſtrangurie alſo, when a man piſſeth dropmeale, they uſe to put wall-lice into a ſyringe, and ſo conveigh them into the paſſage of the yard. See the goodneſſe and induſtrie of dame Nature, the mother of all, how ſhe hath produced no
thing in the world but to good purpoſe and with great reaſon. And yet here is not all that they K
report of theſe lice called punaiſes: For they ſay, that whoſoever carie two of them in a bracelet about his left arme, within a lock of wooll (but the ſame forſooth muſt be ſtollen from ſome ſhepheard) he ſhall bee ſecured againſt thoſe agues that come ordinarily in the night ſeaſon: but ſay their fits uſe to returne by day time, then the ſaid punices ought to bee lapped in a reddiſh clout of a carnation colour. Contrariwiſe, the worme called Scolopendra is an enemie unto theſe wall lice, and killeth them.

As for the Aſpides, looke whomſoever they have ſtung, they die upon it with a kind of deadly ſleepineſſe and benummednes in all their lims: and to ſay a truth, of all ſerpents that creep upon the ground, they are moſt mortall, and their wounds leaſt curable. Their venome, if it enter
once ſo farre, that it come to bloud, or doe but touch a greene wound, there is no remedie but L
preſent death: marie if it light upon an old ſore, the daunger is not ſo ſpeedie, nor the force ſo quicke. Otherwiſe let the ſame bee taken in drinke to what quantitie ſoever, it is harmeleſſe and doth no hurt at all: for ſetting aſide that ſenceleſſe drowſineſſe which it inflicteth, putrifaction and infection it cauſeth none: which is the reaſon, that the fleſh of thoſe beaſts which die of their ſting, is meat good ynough. I would pauſe and make ſome ſtay in reporting a remedie that theſe Aſpides doe yeeld, but that I have my warrant from *M. Varro*, whom I know to have delivered the ſame, even when he was *foureſcore yeares old and eight: namely, That there is not in the world ſo good a thing to cure the biting of the Aſpides, as to give the partie who is wounded thereby, ſome of their urine to drinke.

* At which years he would have beene aſhamed to tell a lie.

To come now unto the Baſiliske, whom all other ſerpents doe flie from and are afraid of: al- M
beit he killeth them with his very breath and ſinell that paſſeth from him; yea, and (by report) if he do but ſet his eye on a man, it is enough to take away his life: yet the Magicians ſet great ſtore by his bloud, and tell wonders thereof: and namely, that being of it ſelfe as blacke and as thicke congealed as pitch, yet when it is waſhed and diſſolved, it looketh more cleare and pure than-

*Cinna-

A *Cinnabaris. Vnto it they attribute ſtrange and admirable effects: For whoſoever (ſay they) carie it about them, ſhall be gracious with princes and great potentats, yea, and at their hands obtaine a graunt of all their petitions: they ſhall find favour with the gods above, and ſpeed in all their praiers: remedie they ſhall have of all diſeaſes: and no ſorcerie or witchcraft ſhall take hold of them. And ſome of them there be who call it the bloud of *Saturne*.

*A kind of gum, called *Sanguis Draconis*.

As for Dragons, they have no venome in them. And if it be true that our Magicians ſay, if a Dragons head bee laid under the threſhold of a dore, after due worſhip and adoration of the gods, with praiers and ſupplications unto them for their favourable grace, that houſe ſhall ſurely be fortunat. The eyes of a Dragon preſerved drie, pulverized and incorporat with honey into a liniment, cauſe (by their ſaying) thoſe who bee annointed all over therewith, to ſleepe ſecurely,
B without any dread of night-ſpirits, though otherwiſe they were fearefull and timorous by nature. Moreover, if we may beleeve them, the fat growing about the heart of a Dragon, lapped within a peece of a Buckes or Does skin, and ſo tied faſt to the arme with the nerves or ſinewes of a red Deere, is very availeable, and aſſureth a man good ſucceſſe in all ſuits of law. The firſt ſpondyle or turning joint in the chine of a Dragon, doth promiſe an eaſie and favourable acceſſe unto the preſence of princes and great ſtates. The teeth of a Dragon lapped within the skin of a Roe buck or wild Goat, and ſo bound faſt with the ſinewes of a Stag or Hind, doe mitigat the rigor of great lords and potentats, cauſing them to encline unto their petitions & requeſts, who preſent themſelves before them. But above all other receits, one compoſition there is which bewraieth the impudent and lying humor of theſe Magicians, who promiſe undoubted and infallible victorie,
C unto thoſe that have it about them, and this it is: Take (ſay they) the taile and head both of a Dragon, the haire growing upon the forehead of a Lion, with a little alſo of his marrow, the froth moreover that an Horſe foameth at the mouth, who hath woon the victorie and priſe in running a race, and the nailes beſides of a dogs feet: bind all theſe together with a peece of leather made of a red Deere skin, with the ſinewes partly of a Stag and partly of a fallow Deere, one with another in alternative courſe: carrie this about you, and it will worke wonders. Impoſtures all, and loud lies. And verely, it is as gracious a deed to diſcover and lay abroad theſe impudencies of theirs, as to ſhew the remedies for the ſting of ſerpents, conſidering how theſe deviſes be no better than meere miſcheefes and ſorceries, which hurt and bewitch poor patients, and ſuch as truſt in them. True it is, that all venomous beaſts flie from thoſe that bee annointed with Dragons
D greaſe. Likewiſe they cannot abide the ſtrong and virulent ſavour of the rat of India called Ichneumon: inſomuch as they ſtand in dread of them who are annointed with a liniment made of the aſhes of their skin incorporat in vinegre. Moreover, lay the head of a Viper unto the place where ſhe hath wounded one, it is a ſoveraign remedie; yea, though it were the head of any other Viper than it which inflicted the wound, it is infinitly good. Likewiſe, if a man doe hold up the ſame Viper that inflicted the ſting, at a ſtaves end over the ſmoake of wood burning, or the vapor of ſeething water (and yet, ſay they, warie ynough they bee thereof, and will avoid it) or annoint the place with a liniment made of her aſhes burnt, it is ſufficient to heale the ſore. *Nigidius* mine Author affirmeth, That ſerpents after they have ſtung one, are forced by a certaine neceſſitie and inſtinct of Nature to returne unto the partie whom they have hurt. The Scythians verely uſe to
E ſlit a Vipers head betweene the eares for to take forth a little ſtone, which ſhe is wont to ſwallow when ſhe is affrighted. Others make uſe of the whole head as it is. Certaine trochiſks there bee, made of a Viper, called by the Greekes Theriaci: for which purpoſe they cut away at both ends as well toward the head as the taile the breadth of foure fingers, they rip her bellie alſo, and take out the garbage within: but eſpecially they rid away the blew ſtring or veine that ſticketh cloſe to the ridge bone. Which done, the reſt of the bodie they ſeeth in a pan, with water and dill ſeed, untill ſuch time as all the fleſh is gone from the chine: which being taken away, and all the prickie bones thereto belonging, the fleſh remaining they incorporat with fine flower, & reduce into troſches, which being dried in the ſhade, are reſerved for diverſe uſes, and enter into manie ſoveraigne antidots and confections. But here is to bee noted, that although theſe troſches bee
F called * Theriaci, yet are they made of Vipers fleſh onely. Some there be, who after a Viper is cleanſed as is aboveſaid, take out the fat, and ſeeth it with a ſextar of oile untill the one halfe bee conſumed: which ſerveth to drive away all venomous beaſts, if three drops of this ointment be put into oile, and therewith the bodie be annointed all over. Moreover, this is held for certaine, that there is no ſting or bitt of ſerpents ſo mortall and incurable otherwiſe, but the entrailes of

* θηριακὰ. For *Theriaci* in the primitive and naturall ſignification is more generall: of θὴρ or θηρίον, which is any wild or venomous beaſt.

the

the ſame which gave the wound, applied thereto, will heale it: as alſo, that as many as have at any time ſupped the broth wherein a Vipers liver was boiled, ſhall never afterwards bee ſmitten or ſtung by ſerpents. G

As for Snakes, venomous they are not but at ſome times of the month, when they feel themſelves moved by the inſtigation of the Moone: but contrariwiſe they bee good for thoſe which chaunce to be ſtung by them, if they be taken alive, ſtamped, or braied with water, and therewith the affected place fomented. Certes, they are thought to be medicinable in many reſpects, as I will hereafter declare: which is the cauſe that a Snake is dedicated unto the god of Phyſicke, *Æſculapius*. And *Democritus* verely talketh of many ſtraunge and wonderfull compoſitions made of ſnakes, by meanes whereof a man may underſtand the language of birds, and know what they prattle one to another. But to ſay no more, was not *Æſculapius* brought from Epidaurus to Rome in the forme of a Snake? And keepe we not ſtill many of that race commonly in our houſes tame and gentle, feeding them by the hand? Surely if their egges and young frie were not eftſoones deſtroied with firing them in their holes, the world would bee peſtered with them, they multiplie ſo faſt. The goodlieſt and faireſt ſnakes to ſee too, are thoſe which live in the water, and are called Hydra, *i.* water-ſnakes: but a more fell and venomous ſerpent, there lives not upon the face of the earth. Howbeit, the liver of theſe water-ſnakes, if it be kept in ſalt or otherwiſe preſerved, is a ſoveraigne remedie for thoſe that be ſtung by the ſame kind. H

Now for the ſpotted Lizards, called Stellions, a ſcorpion ſtamped is ſingular good againſt their poyſon. For this you muſt thinke, that of them there is made a venomous drinke: for let him be ſtrangled or drowned in wine, whoſoever drinke thereof ſhall find themſelves empoyſoned, inſomuch as their faces will breake forth into certaine ſpots & pimples and foule morphew. And this is the reaſon that our jealous dames when they would avert the affection & love of their husbands from thoſe concubines, upon whom they ſuſpect them to be enamoured, will if they can poſſible, ſtiffle a ſtellion in the complexion or ointment wherewith ſuch harlots uſe to paint their viſage; by meanes whereof they become disfigured, and grow both foule and ill-favoured. But what is the remedie to cleanſe the skin from ſuch deformities? The yolke of an egg incorporat with honey and ſalnitre, doth the feat. The gall of theſe Lizards or Stellions punned and diſſolved in water, is ſaid to have an attractive facultie to draw all the Weaſels about the place to reſort thither in companies. I

Of all venomous beaſts, there are not any ſo hurtfull and daungerous as is the Salamanders. As for other ſerpents, they can hurt but one at once, neither kill they many together: to ſay nothing, how when they have ſtung or bitten a man, they die for very greefe and ſorrow that they have done ſuch a miſcheefe, as if they had ſome pricke and remorſe of conſcience afterwards; and never enter they againe into earth, as unworthie to be received there: but the Salamander is able to deſtroy whole nations at one time, if they take not heed and provide to prevent them: For if he get once to a tree, and either claſpe about it or creepe upon it, all the fruit that it bears is infected with his venome; and ſure they are to die, whoſoever eat of that fruit, and that by the meanes of an extreame cold qualitie that his poyſon hath, which dooth mortifie no leſſe than if they had taken the Libard-baine called Aconitum. Moreover, ſay that ſhee doe but touch any peece of wood, billet, or hedge ſtake, wherewith either a loafe is baked, or a ſhive of bread toſted, as many as eat thereof, ſhall catch their bane by it: or if one of them chaunce to fall into a well or pit of water, looke whoſoever drinke thereof, ſhall bee ſure to die upon it: and that which is more, if there happen never ſo little of the ſpittle or moiſture which ſhee yeeldeth, to light upon any part of the bodie, though it touched no more but the ſole of the foot, it is ynough to cauſe all the haire of the bodie to fall off. And yet as great and daungerous as the poyſon of theſe beaſts is, there bee ſome creatures, and namely Swine, that eat them ſafely; ſo effectuall is their contrarietie and repugnancie in Nature, that it conquereth and ſubdueth the ſaid poyſon: And to mortifie this venome, it ſoundeth to good reaſon, that thoſe beaſts ſhould have power, which feed upon them and find no harme thereby. But writers there bee who ſay, that the flies called Cantharides, taken in drinke, or the Lizard in meat, are good for that purpoſe: beſides other things which are adverſe and contrarie thereto, wherof I have alreadie ſpoken & will ſpeake more in time and place convenient. As for that which the Magicians do report of the Salamander, againſt skarefires (for that there is no other beaſt but it that ſcorneth the violence of the fire and quencheth it) ſurely it had beene put in practiſe long ſince at Rome, in caſe their words K L M

had

A had proved true. *Sextius* affirmeth, That the bodie of a Salamander cleanſed from the guts and garbage within, and parted from the head and feet, if it bee condite in honey, inciteth greatly to fleſhly luſt thoſe that eat thereof: but he denieth flatly that it dooth extinguiſh and put out the fire.

Now concerning thoſe birds which yeeld any helpe againſt ſerpents, the Vulture or Geir deſerveth to be ſet in the firſt ranke: but this hath been obſerved and found by experience, that the blacke of this kind are not ſo powerfull as others in this behalfe. It is commonly ſaid, that a perfume made with burning their feathers, chaſeth ſerpents away. Likewiſe, it is an opinion generally received, that whoſoever carie about them the heart of this foule, are ſecured from the violent aſſault, not of ſerpents onely, but alſo of other wild beaſts, yea, and of theeves and robbers by the
B high way ſide. The ſame alſo aſſureth them to eſcape the daunger of princes wrath and indignation, howſoever they be ſet and incenſed againſt them. The fleſh of Cocks and Capons diſmembred, if it bee applied warme (as it was plucked from the bones) to the place which is bitten or ſtung by any ſerpent, draweth out the venome, and mortifieth the ſtrength thereof, ſo doth their braines, if it bee drunke in wine. But the Parthians thinke it better to lay unto the ſaid ſores the braines of an Hen. Alſo a broth made of ſuch Pullein, hath a ſingular vertue in this caſe, if it be ſupped off: like as in many others it worketh wonderfull effects, as it is uſed. For firſt and formoſt neither Lions nor Panthers will ſet upon thoſe perſons who are bathed with their decoction, eſpecially if there were any Garlicke ſodden therein. Secondly, it is paſſing good to keepe the body looſe: but ſtranger is the operation, if it were of an old Cocke. *Item*, It ſerveth very well to cure
C long feavers, the trembling alſo and nummedneſſe of the lims, it aſſuageth the paine of all kinds of gout, eaſeth the headach, ſtaieth the violence of rheumes eſpecially falling into the eyes, reſolveth ventoſities, quickeneth the dull appetite to meat, preventeth the daunger of the inordinat deſire to the ſtoole without doing any thing, if it bee taken betimes and in the beginning of that diſeaſe; ſtrengtheneth a feeble liver, comforteth the reines and the bladder, concocteth crudities in the ſtomacke, and finally, helpeth thoſe who are ſhort winded. In regard of theſe manifold commodities, the manner of making this broth as it ought to be, is ſet down in writing, and direction given therefore. For more effectuall it is found to be, in caſe there be ſodden with the Cocke or Capon the ſea wort Soldanella, or the hearbe Cybium, Capres, or Perſely, Mercurie the hearbe, Polypodium, or Dill. Now the beſt way of making this broth, is to ſet the ſaid Cocke
D or Capon a ſeething with the abovenamed hearbes in three gallons of water; and to ſuffer the ſame to boile untill there remain but three pints of liquor: when it is thus ſodden to this height, it ought to coole without dores in the open air: and then is it ſingular good to be given in thoſe caſes above rehearſed, provided alwaies, that the patient have taken a vomit before, for that is the onely ſeaſon. And for as much as I am thus far entred into a diſcourſe of Pullain, I cannot forget one miraculous experiment, although it be nothing pertinent to Phyſick, & this it is, That if one put the fleſh of an Hen into gold as it is in melting, it will draw all the mettall into it, and * conſume it ſo, as thereupon the ſaid fleſh is held to bee the poyſon (as it were) of gold. Moreover, if you would not have a Cocke to crow and chaunt, put a wreath or collar of Vine twigs about his
E necke. But to returne againe to our receits and medicines againſt ſerpents: the fleſh of yong Pigeons newly hatched, as alſo of Swallows, is very good: ſo are the feet of a ſcriche Owle burnt together with the hearbe *Plumbago. But before I write farther of this bird, I cannot overpaſſe the vanitie of Magicians which herein appeareth moſt evidently: For over and beſides many other monſtrous lies which they have deviſed, they give it out, That if one doe lay the heart of a ſcrich-Owle upon the left pap of a woman as ſhe lieth aſleepe, ſhe will diſcloſe and utter all the ſecrets of her heart: alſo whoſoever carie about them the ſame heart when they goe to fight, ſhall be more hardie, and performe their devoire the better againſt their enemies. They tell us moreover, I wot not what tales of their egges, and namely, that they cure the accidents and defects befalling to the haire of the head. But I would faine know of them what man ever found a ſcrich Owles neſt and met with any of their egges, conſidering that it is holden for an uncouth and ſtraunge prodigie to have ſeene the bird it ſelfe? And what might he be that tried ſuch concluſions and experiments, eſpecially in the haire of his head? Furthermore, they affirme aſſuredly, That the bloud of their young birds will curle and frizzle the ſame haire? Much like to theſe toies are their reports alſo of the Bat: for (ſay they) if a man goe round about an houſe three times, carrying a live Bat with him, and then naile it upon the window with the head downeward, it is a ſoveraigne

coun-

*Hereupō peradventure it is, that in collices & Cock broths we uſe to ſeeth peeces of gold, with an opiniō to make them thereby more reſtorative.

* Which ſome take for the leſſe wild Tazell.

countercharme againſt all ſorceries and witchcrafts: and more particularly, if a Bat bee borne G
thrice round about a ſheepe-coat, and then hanged upon the lintell of the dore, with the heeles upward, it will ſerve for a ſingular preſervative to defend the ſheepe from all ſuch harmes. As for the bloud of a Bat, they commend it highly for healing the ſting of ſerpents: if together with the leaves or ſeeds of a thiſtle it be applied to the place.

* Yet *Matthiolus* upon *Dioſcorides* reckoneth *Tarantula* to be a kind of Phalangium, whereof there is great ſtore in Apulia.

Touching the venomous ſpider called * Phalangia, they know not in Italie what it is, for all there be many kinds thereof: For ſome are like unto Piſmires, but that they bee far bigger; their heads be reddiſh, the reſt of their bodie blacke, howbeit here & there marked with white ſpots. The ſting of this ſpider is more keene and ſharpe than that of the weſpe. It liveth ordinarily about ovens and mils. The beſt remedie againſt the pricke of their ſting, is to preſent before the eyes of the patient, another ſpider of the ſame kind: for which purpoſe folke uſe to keepe them H
in ſtore, when they find any of them dead. Their caſes or skins brought into pouder and taken in drinke, have the like effect to young weazils or kitlings, as I have declared before. A ſecond ſort there is of theſe venomous ſpiders Phalangia, which the Greekes diſtinguiſh from others by the name of Lupus. Thoſe that be of a third kind, and yet named Phalangia, are the ſpiders which be covered all over with a certain down, and of all the reſt have the biggeſt heads. Cut one of them and rip the bellie, you ſhall find within two little wormes or grubs, which (if it bee true that *Cæcilius* hath left in writing) hinder women for conception, in caſe they be knit within a peece of leather of a red deere skin, and tied to their armes or other parts of their bodie before the ſunne-riſing: but this vertue continueth not above one yeare. Thus have I ſhewed one receit only, of all
*called *Atocia* thoſe that *keep women from conceiving; which I may be allowed to do in regard of ſome wives, I
who being too fruitfull and overcharged with child bearing, have ſome reaſon to play them a while and reſt from teeming: and therefore may bee pardoned, if they uſe ſome ſuch meanes therefore.

There is another kind of ſpiders, which the Greekes call Rhagion, for that it reſembleth a black grape kernill: theſe have a very little mouth under their bellie, and as ſhort legges, as if they were unperfect and not fully made. Looke where they bite, the paine that enſueth is much like to that which is occaſioned by the ſting of a ſcorpion: and their urine who are hurt by them, ſeemeth to ſhew unto the eye, cobwebs floting aloft. I would ſay, that this ſpider were the ſame that Aſterion, another kind of them, but that theſe have certaine raies or ſtreakes of white. Their ſting or pricke cauſeth looſeneſſe and feebleneſſe in the knees. As for the blew ſpider, which carrieth a K
blacke downe or cotton, it is worſe than both the former, cauſing trouble and dimneſſe of the eyes by their pricking, yea, and vomiting of matter reſembling cobwebs. And yet there is another Phalangium worſe than it, which commeth neare in ſhape unto the Hornet, but that it hath no wings at all, and looke whomſoever it biteth, they are ſure to become leane and pine away. The venomous ſpider, called by the Greekes Myrmecion, is headed like unto an Emmet: the bellie is blacke, howbeit marked with certaine white ſpots: their ſting is as painefull as that of
*i. Having four clawes. Weſpes. But as touching that kind of Phalangium which is called *Tetragnathium, there bee two ſorts thereof: The one, which is the worſt of the twaine, hath the head devided directly in the middeſt with a white line; whereas in the other, the ſaid line or ſeame runneth croſſe overthwart. Theſe make their mouths to ſwell whom they have bitten. But thoſe that be of a dead aſh L
colour, and yet whitiſh behind, are not ſo quicke with their pricke as the reſt: Of which colour there is another ſort that be altogether harmeleſſe, and theſe be our common ſpiders or ſpinners which againſt wals uſe to ſtretch out their large webs as nets to catch poore flies. Now concerning the remedies appropriat to any prick or biting of the foreſaid Phalangia, there is not a better thing than to drinke in oxycrat, *i.* wine and vinegre mingled together, the braines of a Cock or Hen with a little pepper. Alſo to take in drinke five Piſmires, is thought to bee a ſingular medicine: and withall to make a liniment of ſheeps mucke aſhes, tempered in vinegre, and therwith to annoint the grieved place. Moreover, the ſaid ſpiders themſelves (of any kind whatſoever) reſolved and putrified in oile, ſerve for the ſaid purpoſe.

As for the miſcheevous mouſe called the Hardiſhrew, the rennet found in a lambes maw taM
ken in wine, healeth the hurt that commeth by her biting: alſo the application of a ſalve made with the aſhes of a Rams cley incorporat with honey, worketh the ſame effect: ſo doth a young weazill or kitling, prepared and uſed in manner aforeſaid in the Treatiſe of ſerpents. If one of theſe ſhrewes have bitten a horſe or other beaſt, it is good to lay unto the place a mouſe or rat

new

A new killed, with ſome ſalt; or elſe the gall of a bat with vinegre. The ſhrew it ſelfe being burſt and ſo laid freſh and warme to the ſore, cureth the ſame: for this is obſerved, That if one of them be with young when ſhee doth bite, preſently ſhee cleaveth in ſunder. And in truth, the beſt and ſureſt means to cure the hurt, is to apply unto the wound the verie ſhrew it ſelfe that did the deed, if poſſibly ſhe may be had: and yet the reſt are very good: for which purpoſe, they uſe to be kept either in oile, or elſe to be dawbed over with clay, to ſerve in time of need: alſo the earth taken from a cart-rut where the wheele hath gone, is thought to bee a proper remedie for the ſaid biting of a ſhrew, if it bee applied thereto: for it is ſaid, that this creature is by nature ſo benummed or dull of mooving, that it will never goe over a cart-tract.

As touching Scorpions, the lizard named Stellio (by way of a reciprocall countrechange) is
B the greateſt enemie they have: inſomuch, as at the verie ſight onely of the ſaid lizard, they will be affrighted and aſtonied and fall into cold ſweats: and therefore people uſe to putrifie and reſolve Stellions in oile, and therewith annoint the wounds that ſcorpions have made. Some there be who make a kind of plaſtre of the ſaid oile and litharge of ſilver boiled both togither, wherewith they rub and annoint the grieved place. This lizard which we name Stellio, the Greekes call Colotes, Aſcalabotes, and Galeotes: * it breedeth not within Italie: but call it what you will, and whereſoever it is to be found, full it is of little red ſpots like lentils; a ſhrill noiſe it maketh that pearceth the ears and goeth through ones head; it doth eat and graze like other beaſts; which be marks all contrarie to our Stellions or Star-lizards here in Italie. But to come againe unto the prick of ſcorpions: it is thought good to rub the ſame with the aſhes of hens dung, mixed with
C the liver of a dragon: or to take a lizard that is burſten, and the ſame to apply unto the affected place; or a mouſe likewiſe which is cloven in ſunder: alſo to lay unto the ſore the very ſame ſcorpion that did the harme; or to eat him roſted: and laſt of all, to drinke it in two cyaths of pure wine of the grape. Moreover, this proper qualitie have ſcorpions alone by themſelves, That they never pricke the ball of ones hand; nor ſting at all, unleſſe they may touch ſome haire. Furthermore, take any little ſtone whatſoever, and apply that ſide which lay next the ground unto the wound, it will eaſe the paine: likewiſe any ſhell or potſheard that lieth with ſome part of it covered with earth, if it be taken up and laid unto the ſore, with earth and all upon it as it was found lying, is ſaid to heale the ſame perfectly: but in no wiſe they that have the applying of it, muſt looke behind them: they ought alſo to take heed and be verie carefull, that the Sun ſhine not
D upon them when they are about this buſineſſe. Earth-worms or mads ſtamped and laid too, are verie good to cure the biting of ſcorpions: and yet they ſerve beſides for many other remedies; in which regard, they be ordinarily preſerved in honey.

For the ſting of Bees, Weſps, and Hornets; for the biting alſo of theſe Horſeleeches called Bloudſuckers, the Howlat is counted a ſoveraigne thing, by a certaine antipathie in nature: alſo whoſoever carrie about them the bill of a Woodpecker or Hickway, ſhall never be annoied with
F any of the foreſaid vermine. The ſmalleſt kind of Locuſts likewiſe, which are without wings and be called Attelabi, be adverſe and contrarie unto them all.

Over and beſides the Inſects above-named, there be in ſome places certaine Piſmires alſo venomous, which *Cicero* calleth Solpugæ; but they of Grenade in Spaine, Salpugæ: howbeit, few
E or none of them are to be found throughoughout all Italy. But what helpe is there for them and their poiſon? Surely the heart of a Reremouſe, otherwiſe called a Bat, hath an operation which is adverſe not onely to them, but to all Ants beſides.

As for the flies named Cantharides, I have ſhewed before, how contrarie they be to the venome of the Salamander: and yet conſidering how hurtfull they be themſelves and a verie poiſon to the bladder, cauſing intollerable paine if they be drunke downe, much diſpute and queſtion there is among Phyſicians, * how they ſhould be taken and uſed? For how venomous they be, it may appeare by the practiſe of a certaine Ægyptian Phyſician, whome by occaſion that one *Coſſinus* a knight of Rome, a great favourit of the Emperour *Nero*, was infected with the foule tettar called Lichen, the ſaid prince ſent for out of Ægypt, to cure that diſeaſe: But hee
F prepared ſuch a drinke of Cantharides for his patient *Coſſinus*, that it quickely coſt him his life and brought him to his grave. Howbeit, there is no doubt, but being applied outwardly, they are not onely harmleſſe but alſo verie good, eſpeciallly if they be incorporat in the juice of the black wild vine called Vva Taminia, and ſheeps ſewet or goats tallow. Moreover, albeit well knowne it is, that theſe Cantharides be venomous, yet thoſe authours that write of them be not agreed

* And yet *Matthiolus* upon *Dioſc.* ſaith it is the *Terrancola*, which is common in Tuſcan.

* Namely, whether they are to be uſed inwardly at all? whether with their wings, head, & feet, or without them?

and reſolved, in what part that venome lyeth: for ſome there be who are of opinion, that their feet are poiſon; others thinke, that their miſchiefe is all in their head: and there be againe, who denie both: but whereſoever the ſaid poiſon lieth, all conclude joyntly upon this point, that their wings be medicinable therefore, and doe cure the ſame. As for the generation of theſe daungerous flies, they be engendred of certaine little grubs or wormes, and moſt commonly upon the ſpungeous balls which wee ſee to grow upon the ſtalke or ſtem of the Eglantine: but ſurely the greateſt plentie of them breed in an aſh tree. As for others which come of a white roſe buſh, they are not ſo vehement in operation as the reſt: and of them all, thoſe worke moſt violently which are ſpotted and of divers colours, ſtreaked with yellow lines overthwart their wings, and beſides are verie plumpe and fat. The ſmaller ſort, which alſo are broad and hairie, are nothing ſo powerfull and ſpeedie in their operation: But the woorſt of all, and leaſt effectuall in Phyſicke, bee thoſe which are of one entire colour, and leane withall. Now for the manner of preparing and ordering of them for phyſicall uſes: they would bee gotten when roſes be fully out: heaped up togither into one maſſe, and ſo beſtowed in an earthen pot not pitched, verniſhed or nealed, the mouth whereof is cloſe ſtopped with a linnen cloth: then are they to be hanged up with the mouth of the ſaid pot downeward over ſome vinegre boiling with ſalt, untill ſuch time as by the fume or vapour thereof ſteeming through the ſaid linnen clout, they be choked and killed: and afterwards they be laid up and reſerved for uſe. Of a cauſticke and burning nature they are, in ſo much as they will raiſe bliſters, yea and leave an eſcharre upon the exulcerat place.

Of the like force bee the wormes Pityocampæ, breeding in pitch trees: ſo is the venomous flie or beetle called Bupreſtis: and after the ſame manner be they prepared as the Cantharides: all the ſort of them in generall be moſt effectuall to kill the leproſie, and ill-favoured tettars called Lichenes. Beſides, they have the name to provoke womens monethly terms, and urine: which is the cauſe, that *Hippocrates* preſcribed them to bee uſed in a dropſie. To conclude with theſe Cantharides, I thinke it not amiſſe to note, that *Cato*, ſurnamed **Vticenſis*, was accuſed and endited for ſelling of poiſon; becauſe in the generall portſale of the kings goods, among other mooveables, hee held Cantharides at threeſcore Seſterces the pound, and made ſo much money of them.

* For that hee killed himſelfe at Vtica.

Chap. v.

Of the Oſtrich greace, and of a mad dog: of Lizards, Geeſe, Doves, and Weaſils, with the medicines that they doe yeeld.

I Cannot chuſe but relate alſo by the way, upon this occaſion miniſtred, that at the ſame time Oſtrich greaſe was ſold for *foureſcore ſeſterces the pound: and in truth it is much better for any uſe that it ſhall be put unto than gooſe greaſe.

* Some read, thirtie.

As touching divers ſorts of venomous honey, I have written alreadie: but for to repreſſe the poiſon thereof, it is good to uſe other honey wherein a number of bees have been forced to die: and ſuch hony ſo prepared and taken in wine, is a ſoveraign remedie for all thoſe accidents which may come by eating or ſurfetting upon fiſh.

For the biting of a mad dog, Take the aſhes of a dogs head burnt, and apply it to the ſore, it will ſave the patient from that ſymptome of beeing afraid of water; which is incident unto ſuch as be ſo bitten. [And now by occaſion of ſpeech, know thus much once for all, That all things which are to be calcined, require one and the ſame name of burning; to wit, within a new earthen pot never occupied before, well luted all over with ſtrong cley, and ſo ſet into an oven or furnace untill ſuch time as the contents be calcined.] The ſaid aſhes made of a dogs head, is ſingular good likewiſe to be drunke in the ſame caſe: and therefore ſome there bee who have given counſell, to eat alſo a dogs head. Others ſeeke after the wormes that breed in the carkaſſe of a dead dog, and hang the ſame faſt about the necke or arme of the partie that is bitten: or elſe they lap within a cloth ſome of the menſtruall bloud of a woman, and put it under the cup or pots bottome, out of which the patient drinketh. And there bee ſome againe, who burne the haires of the ſame mad doggs taile, and conveigh their aſhes handſomely in ſome tent of lint into the wound. Moreover, it is commonly ſaid, that as many as have a dogs head about them, no other dogs will come neare to doe them any harme. In like manner, if a man carrie a dogs tongue in his ſhoe under his great toe, there will no doggs bay or barke at him: or if hee have

about

A about him a weazils taile, which hath been let goe againe after it was cut away. There is to bee found under the tongue of a mad dog, a certaine ſlimie and groſſe ſpittle, which beeing given in drinke to thoſe that are bitten, keepeth them from the feare of water; which ſymptome the Greekes call Hydrophobia: but the beſt and moſt ſoveraigne remedie of all other, is the liver of the ſame dog that in his madneſſe bit any bodie, eaten raw, if poſſibly it may be; if nor, yet ſodden or boiled any way; or elſe to cauſe the patient for to ſup the broth that is made of the ſame doggs fleſh. There is a certaine little worme in doggs tongues, called by a Greeke name Lytta, which if it be taken out when they be young whelps, they will never after proove mad, nor looſe their appetit to meat. The ſame worme given to ſuch as are bitten with a mad dogg, preſerveth them from beeing mad; but with this charge, that before they take the ſame, it muſt bee carried
B three times about the fire. Alſo the braines of a cocke, capon, or hen, is ſingular good againſt the biting of a mad dogg: but if one have eaten the ſame, the vertue thereof endureth but for that yeere onely, and no longer. It is commonly ſaid, that the creſt or combe of a cocke well bruſed and ſtamped, and ſo laid in manner of a cataplaſme to the place bitten, is verie effectuall to cure it: as alſo the greaſe of a gooſe incorporat with honey. Furthermore, ſome there be who uſe to ſalt the fleſh of dogs which have been mad, and ſo keepe it to give in meat unto thoſe who chaunce to be bitten by others. There be, who take ſome young whelps, male or female according to the ſex of dogg or bitch that hath bitten any one, and preſently drowne them in water, cauſing the patient to eat their livers raw. The yellow or reddiſh dung of a cocke or hen, diſſolved in vinegre and applied to the ſore, is ſingular good. The aſhes alſo of an hardyſhrews taile;
C provided alwaies, that the ſhrew were let goe alive, ſo ſoone as ſhee was curt-tailed. Moreover, a peece of clay taken from a ſwallows neſt, made into a liniment with vinegre: or the aſhes of young ſwallows newly hatched and burnt: the old skin alſo or ſlough which a ſnake uſeth to caſt off in the ſpring time, ſtamped with a male crab-fiſh, and with wine brought into a cataplaſme, be all eſpeciall remedies for the biting of a mad dog. As for this skin or ſpoile of a ſnake, if it be put alone in a chiſt, preſſe, or wardrobe, among cloaths, it will kill the moth. But to come again unto a mad dog: his poiſon is ſo ſtrong, that whoſoever doe but tread upon his urine, eſpecially if they have any ſore or ulcer about them, they ſhall ſenſibly feele hurt thereby. Now what remedie is there for ſuch? None better than the dung of a caple, well wet and tempered with vine-
D gre, and the ſame laid very hote within a fig to the foreſaid ſore. Theſe may ſeeme to ſome men ſtraunge things and monſtrous; but leſſe will they woonder hereat, when they ſhall heare and conſider, that a ſtone which a *dog hath taken up with his mouth and bitten, will cauſe debate and diſſention in the companie where it is: and yet this is held for a certaine truth, inſomuch as it is growne into a common proverbe and by-word, when wee perceive thoſe that dwell in one houſe togither to be evermore jarring and at variance one with another, to ſay, You have a dog-bitten ſtone here among you. Againe, whoſoever maketh water in the ſame place where a dog hath newly piſſed, ſo as both urines be mingled togither, ſhall immediatly find a coldneſſe and aſtoniſhment in his loins, as folke ſay.

That kind of lizard, which of ſome Greekes is called Seps, of others Chalidice, hath a venomous tooth: howbeit, the ſame worme or ſerpent taken in drinke, cureth the bit which it
E ſelfe inflicted.

If wild weazils have empoiſoned any bodie, let the patient take a large draught of the broth of an old cocke, hee ſhall find it to bee a verie ſoveraigne remedie therefore: but above all, it is moſt effectuall againſt the poiſon of the hearbe Aconitum; but then it muſt be given with a little ſalt among.

Againſt the poiſon of venomous Tadſtoles and hurtfull muſhroms, hens dung (I meane that part alone which is white) ſodden with *hyſſope or honeyed wine, is ſingular good, for it repreſſeth and killeth the malice thereof. And the ſame otherwiſe keepeth downe ventoſities and ſtuffing of the ſtomacke, readie to choke one. Whereat I cannot chuſe but marveile much, conſidering that if any other living creatures doe taſt never ſo little of the ſaid dung (but man
F or woman onely) they ſhall bee exceedingly vexed with wind in the belly, and other grievous wrings and torments.

The Sea-hare is knowne to be venomous; but gooſe bloud taken with an equall quantitie of oile is a ſoveraigne countrepoiſon for it. Of this bloud, incorporat with the beſt Terra Sigillata of the Iſland Lemnos, and the juice of the S. *Mary* thiſtle called Bedegnar, there be excellent

* For the manner of a dog is to bee angrie with the ſtone that is thrown at him, without regard of the partie that flung it: whereupon grew the proverbe in Greeke, κύων εἰς λίθον δηγκᾶται.

* *In hyſſopo decocta, aut muſſo*: ſome read, *cum œſypo decoctum in muſſo*: *i.* Boiled with tried greaſe of ſheeps woolle, in honeyed wine.

trochiſchs made weighing five drams apeece, which are uſually kept in a readineſſe for to bee drunke in three cyaths of water as a countrepoiſon and countrecharme, againſt all venomous confections and deviliſh ſorceries: for which purpoſe ſerveth alſo a young ſucking weazill prepared in manner aforeſaid. The rennet in a lambs maw likewiſe, is paſſing good for any ſuch indirect means wrought by poiſon or witchcraft: like as the bloud of ducks and mallards bred in the realme of Pontus: and therefore their bloud is ordinarily kept drie in a thicke maſſe, and as need requireth is diſſolved and given in wine. But ſome thinke, that the bloud of the female duck is better than that of the mallard or drake. Semblably, the geſtier of a ſtorke, and the rennet or read of a ſheepe, is thought to be ſingular good for any poiſons whatſoever. The broth or decoction of Coleworts boiled with rams mutton, hath a peculiar vertue againſt the Cantharides. Ewes milke alſo drunke warme, availeth much againſt all poiſons, unleſſe it be the venomous flie Bupreſtis, or the deadly hearbe Aconitum. The dung of wild quoiſts or ſtockdoves taken in drinke, hath a ſpeciall vertue to helpe thoſe that have drunke quicke-ſilver. Finally, the fleſh of the ordinarie or common houſe-weazill kept in ſalt, is a preſent countrepoiſon againſt all venome that goeth under the name of Toxicum, if one drinke of it the weight of two drams.

Chap VI.

Medecines to bring haire againe in places that by ſome diſeaſe are bald: alſo to rid away nits: for to rectifie and keepe in order the eye-lids, and the haire growing thereupon: for to cure the pearle in the eye: and generally for all the accidents befalling to the eyes: laſtly, for the impoſtumat kernels behind the ears.

THe naked places in head or beard, are repleniſhed againe with haire by a liniment made of the aſhes of ſheeps dung incorporat in Cyprin oile & hony: alſo with the aſhes of mules or mullets houfes, applied with oile of myrtles. Our countreyman and Latine writer *Varro* affirmeth moreover, That the dung of mice (which he by a proper name calleth * Muſcerda) is a convenient medicine for the ſaid infirmitie and defect: he attributeth alſo the ſame operation to the heads of flies applied freſh to the bald place, if ſo bee the ſame were before rubbed hard, and in ſome ſort fretted with a figtree leafe. Some uſe in this caſe the bloud of flies: others mingle their aſhes with the aſhes of paper uſed in old time, or els of nuts; with this proportion, that there be a third part onely of the aſhes of flies to the reſt, and herewith for ten daies togither rub the bare places where the haire is gone. Some there be againe, who temper and incorporat togither the ſaid aſhes of flies with the juice of the colewort and breſt-milke: others take nothing thereto but honey. Certes, a ſtraunge thing it is of theſe flies, which are taken to be as ſenſleſſe and witleſſe creatures, yea and of as little capacitie and underſtanding as any other whatſoever: and yet at the ſolemne games and plaies holden everie fifth yeere at Olympia, no ſooner is the bull ſacrificed there to the Idoll or god of Flies called * Myiodes, but a man ſhall ſee (a wonderfull thing to tell) infinit thouſands of flies depart out of that territorie by flights, as it were thick clouds. But to come againe to the foreſaid infirmitie of haire-ſhedding: the aſhes of the heads, tails, yea and the whole bodies of mice burnt, are very good to make it come againe; eſpecially if the haire went off by occaſion of ſome venomous matter or poiſon: ſo are the aſhes of an urchin or hedgehog medled with honey: or the skin thereof burnt and applied with tar. As for the head alone of an urchin conſumed into aſhes, it is thought ſo effectuall for this purpoſe, that it will cauſe haire to grow againe upon a skar: but for the cure of the foreſaid defect of haire, called Alopecia, the places ought before the application of thoſe topicke medicines, to be well prepared with the razour, and a ſinapiſme or rubificative made of muſtard ſeed, untill the place look red: howbeit, ſome chuſe rather to take vinegre unto it. Here note by the way, that whatſoever vertue we attribute unto hedgehogs, the ſame is more effectuall in the porkeſpine. Moreover, Lizards torrified yea and calcined as I have ſhewed before, with the root of reeds or canes that bee greene and new drawne (which that it may burne the better with the Lizards, ought to bee ſliced ſmall) yeeld aſhes, which beeing incorporat well in oile of myrtles, doe retaine the haire and keepe it from ſhedding, if the place be annointed therewith: and the greene lizards in this cure and operation be ſimply the beſt: But if you would have this medicine to worke more effectually, put thereto ſalt, bears greace, and onions ſtamped. Some there be, who in ten ſextars of old oile ſeeth ten greene lizards, and therewith make a liniment, thinking it ſufficient therewith

to

* The Latines in old time after the ſame analogie called the dung of ſwine, *Sucerda*; of kine and oxen, *Bucerda*; like as the ordure of men, *Homerda*.

*This Idoll of the Painims, I take to be called in the holy Scripture, *Beel-zebub*.

A to annoint the place once a moneth, and no oftener. The aſhes of vipers skins doth raiſe haire quickely againe and make it grow apace, where it was ſhed: ſo doth hens dung that is freſh and new, if the place be plied with annointing. Taken a ravens egg, and mix it with the dung aforeſaid in a veſſell of braſſe, and therewith rub and annoint the head (ſo that it were ſhaven before) it will cauſe the new haire to come up blacke: but untill this unguent be dried upon the head, the patient muſt hold oile in his mouth, for feare leaſt the teeth alſo by this means turne blacke: and withall, this ought to be done in the ſhade or within-houſe: and the foreſaid ointment not to be waſhed off in foure daies ſpace. Others in this cure, uſe the bloud and brains of a raven, togither with ſome thicke and deepe coloured wine. Some boile a raven throughly, untill the fleſh be parted from the bones, and in the dead time of the night when every bodie is found aſleepe, put him
B up into ſome pot or veſſell of lead. There be againe, who having prepared and rubified the skin with ſalnitre, do annoint the place where the haire is gone or groweth thin, with a liniment made of Cantharides and tar punned and incorporat togither. Now foraſmuch as Cantharides be of a cauſticke qualitie and corroſive, great heed would be taken that they doe not fret and eat into the skin over deepe. Now when the place is thus prepared, and lightly exulcerat, they ordaine to apply thereto a liniment made of mice heads and their galls, incorporat and wrought togither with their dung, putting thereto ellebore and pepper.

The head many times is peſtered with nits; but for to rid them away, there is not a better thing than dogs greaſe. Some for this purpoſe, make a diſh of meat with ſnakes, dreſſing and ordering them as eels, and ſo eat them; or els they take their ſlough which they ſlip off in the ſpring
C time, and drinke the ſame.

Otherwhiles there be certaine brannie ſcales called dandruffe, which over-ſpread the head: to cleanſe it from this ſcurfe and deformitie, it were not amiſſe to annoint the head with ſheeps gall tempered with fullers * ſcouring clay, and let it remaine on the head untill it be drie.

* *Creta cimolia*, Tuckers earth.

For the painefull head-ach, it is commonly thought, that the heads of naked ſnails (I meane thoſe that bee found without ſhells, and are unperfit yet and not fully made) plucked from their bodies, are a ſingular remedie to be hung about the necke or tied to the head; with this charge, that there be taken forth of their heads firſt, a certaine ſtonie hard ſubſtance, which is made flat and broad like a thin gravell ſtone: and if the ſaid ſnails be but young and ſmall, they uſe to ſtamp them, and in manner of a frontall apply them to the forehead. In like manner, the bones of a
D Vulturs head, whether it be the common Geire, or that which the Greeks call Ægypios, hanged about the necke or faſtened to the arms: alſo the brains of the ſaid foule tempered with the oile of Cedar-roſin, driveth away the head-ach, if either the head bee throughly annointed, or the noſthrils within-forth, therewith. The brains of a crow or of an owle, beeing ſodden and eaten, will doe as much. Some thinke it good in this caſe, to lap the head and forehead with the fethers or plume plucked from about the necke of a cocke, or with his creſted combe, but it muſt be of ſuch a cocke as hath been cloſe ſhut up as a priſoner and kept from meat and drinke a whole day and a night; but take this withall, the patient who is troubled with the headach, muſt faſt as long from all meat and drinke. The aſhes of a rat or weazill applied to the forehead, eaſeth the paine; ſo doth a twig or ſticke taken from a puttocks neſt, laid under the pillow of the ſicke perſon: yea
E 3 and a liniment made of a mouſe skin burnt to aſhes, mixed with vinegre, and ſo applied. Many doe ſay, that the little hard bone in the head of ſnailes (ſuch eſpecially as are found between two cart-tracts) if it bee put through the eare, and hanged thereto within a little box of Ivorie, or otherwiſe tied faſt and carried about one within a peece of a dogs skin, is a remedie for the head-ach that never faileth, and may ſerve to doe many good. If the head be hurt, or the crown crackt, lay to the wound a copweb with oile and vinegre, and ſo let it lie, it will not lightly goe off untill ſuch time as it bee perfectly healed: this copweb is very good alſo to ſtaunch the bloud * of wounds in a barbars ſhop. But ſay that the bloud guſh out of the head, and from the braine, what is to bee done in that caſe? Surely there is not a better thing to ſtay the flux thereof, than to inſtill and drop thereupon the bloud of a gooſe or ducke, with the greace of the ſaid foules, ſod-
F den togither with oile of roſes. And to returne once againe to the cure of the head-ach: Take a ſwallow feeding in a morning betimes, cut off his head (but let this be done if poſſibly you can in the full of the moone) wrap it within a linnen cloth, and bind it to the head of the patient with the yarne that goeth to the ſelfe-edge or liſt of a peece of cloth: and yet ſome there be, who incorporat the ſaid head within white wax, and therewith annoint the forehead; and withall, baſt

* *Vulneribus tonſtrinarum ſanguine fiſtis*: Either whē the barbar would ſtop the orifice of a vein after bloud-letting: or when one that is newly wounded; cōmeth freſh bleeding to be dreſſed: or if his owne raſor chaunce to go awrie & ſhave to the quicke; whiles he hath a man under his hand to trim.

dogs haire downe to a bend or peece of cloth, and faſten the ſame cloſe to the ſaid forehead. G

Let us come lower to the eye-lids: It is ſaid, that if one doe eat the brains of a crow with meat, it will make the haire there to grow: ſo doth the tried greace of ſweatie wooll called Oeſypum, if the edges or brims of the eyelids be annointed with it and myrrhe hote, with a fine penſill. Many promiſe the ſame effect, if there be taken the aſhes of flies and mice dung, of each an equall portion; ſo as they both togither amount to the weight of halfe a dram or denier Romane; adding thereto of Stibi or Antimonium * two ſix parts of a denier; ſo as they bee all incorporat with Oeſypum aforeſaid, and therewith the eye-lids be annointed. Likewiſe young mice are emploied to the ſame purpoſe, beeing braied in a mortar with old wine to the conſiſtence of thoſe medecines which be called Acopa, and prepared for to diſſolve laſſitudes. If any hairs grow in the eielids untowardly and bee offenſive to the eyes, or otherwiſe, plucke them foorth, and annoint the H place with the gall of an urchin, they will never grow againe to trouble you: of the ſame operation and effect, is the humor or liquor that the eggs of the Star-lizard called Stellio, doe yeeld from them: the aſhes of a Salamander: the gall of a greene Lizard, tempered with white wine and permitted in the Sun to thicken and drie untill it have gotten the conſiſtence of honey, lying all the while in ſome baſon or veſſell of braſſe: the aſhes of young ſwallows with the milkie juice of the Tithymall: and laſt of all, the ſlime or froth that iſſueth from ſhell-ſnails.

* ſ. one whole ſcriptule or ſcruple.

To come nearer to the very eyes: the fierie red ſpots or pearls appearing in the chryſtalline humor, which the Greeks call Glaucomata, may be cured (as our magicians ſay) with the brains of a young whelpe or puppie that is but ſeven daies old; ſo as the chirurgian with his probe or inſtrument, doe conveigh the ſame gainly on the right ſide, if the right eye be amiſſe; and contrariwiſe on the left ſide, if the other eye be affected. And ſome of them affirme, that the freſh gall of a foule called Aſio will doe as much: this Aſio, is of the biggeſt kind of owles, who have certein feathers pricking up like ears. *Apollonius Pitanæus* was of opinion, that for to cure the cataract in the eye, the gall of a dog was better than that of the Hyæna, ſo that it were applied thereto with honey: and he was perſuaded, that the ſame would take away the white ſpots or pearls of the eye, called Albugines. It is a generall ſpeech, that to clarifie and quicken the eye-ſight that is dim and overcaſt with a miſt or clowd, a collyrie or eye-ſalve made with the aſhes of mice heads and their tails, mixed with honey, is a ſingular medicine: but the ſame would be much better in caſe the ſaid ſalve were made up with the aſhes of heads and tailes both, of dormice, or the wild field-mice: or at leaſtwiſe with the brains or gall of an ægle. The greace and aſhes of a rat burnt and K well incorporat in a mortar with the beſt Atticke honey, is a ſoveraigne remedie for weeping and waterie eyes: ſo is Antimonium, otherwiſe called Stibi; but what this is, I meane to declare in my treatiſe of Minerals. The aſhes of a weazill is good for the cataract: ſo are the brains of a lizard or ſwallow: and if the ſame lizards and ſwallows be either braied in a mortar or ſodden, and ſo applied to the forehead in manner of a liniment, they do repreſſe the violent rheume that taketh to the eyes: which effect they worke either alone by themſelves, or elſe with fine floure of meale, or with frankincenſe: and in this wiſe they helpe the eyes and face * blaſted and bliſtered with ſun-burning. Moreover, there is not of all others a better medicine to cleare the eye and to rid away all thicke filmes and miſts that trouble the ſight, than to burne the ſaid lizards and ſwallows alive, and with an eye-ſalve made of their aſhes and honey of Candie, to annoint them. The L ſlough or skin of an Aſpis, which ſhe likewiſe ſometime caſteth, tempered with the owne greace, mundifieth the eyes of horſes and ſuch labouring beaſts, if they bee annointed therewith. Alſo, there is not a more ſoveraigne thing in the world for to remoove the cataract, and diſpatch the miſts and cloudie films that dim the eies, than to burne and calcine a viper alive in a new earthen pot never occupied before; putting thereto of the juice of fenell the meaſure of one cyath, and ſome corns or crums of Olibanum or frankincenſe: and this medicine is commonly called * Echion. Moreover, there is a collyrie or ſpeciall eye-ſalve made of a viper ſuffered to putrifie in a pot of earth, ſo as the grubs or worms that come of the ſaid carrion be ſtamped and incorporat in ſaffron. Some burne a viper with falt in an earthen pot; and they are of opinion, that whoſoever doe licke the ſame falt, or let it melt at the tongues end, it clarifieth the eyes: and that they M ſhall *keepe the ſtomacke and all the bodie beſides in good temper, yea, and live long by that meanes. They uſe to give alſo of this falt unto ſheepe when they are not well at eaſe, and it is thought to be very holeſome for their health: yea, and it entreth into many antidotes and countrepoyſons deviſed againſt the venome of ſerpents. Some there bee who uſe to eat vipers ordinarily

* *Sicet ſolatiis proſunt.* This ſcorching and roughneſſe of the skin or face, is called by Phyſicians *Ephelis.*

*As one would ſay, made of a viper.

* *Stomachi totiuſq; corporis temperiem, ſeruſq; ætates, Ex Dioſc.* μακροβίους γίνας.

A rily at their table, for to preſerve their eyeſight. But for meat they prepare and order them in this wiſe: Firſt, ſo ſoone as they have killed a viper, they give order to put ſalt into the mouth, untill ſuch time as it hath ſucked out the venomous humor that lieth at the root of the teeth, and diſſolved or conſumed it: afterwards, when they have cut away to the breadth of foure fingers from under the top of the head, and withall taken forth the entrailes and garbage out of the belly, they ſeeth the reſt of the bodie in water, or oile, together with ſalt and dill ſeed: and this fleſh either they eat out of hand thus dreſſed, or els working it with ſome paſte, they reduce the ſame into troſches, that they may be preſerved for their uſe at ſundrie times. As touching the broth that is made of this decoction, over and beſides that it is good in thoſe caſes beforeſpecified, this qualitie it hath, namely, to rid and cleanſe both the head and all the bodie beſides of lice; yea, and to
B kill the itch that runneth aloft in the skin. The aſhes of a vipers head calcined, are by themſelves very effectuall without any thing els; but principally in clearing the ſight, if the eyes be annointed therewith in ſome convenient liquor: ſo is the greaſe alſo of the viper. As for their gall, I dare not be ſo bold as to approve that which others confidently have adviſed and preſcribed: becauſe (as I have alreadie ſhewed) the venome of ſerpents is nothing els but their gall. The greaſe of a ſnake mixed with verdegreece, healeth any part of the eye that is broken: but the ſlough or old skin which they caſt off in the Spring, doth clarifie the eyeſight if the eyes be gently rubbed therwith. The gall of an Hulat likewiſe is highly commended for the white pearles, the cataracts and thicke filmes which trouble the ſight: the fat alſo of the ſaid bird is as much praiſed for the clearing of the ſame. Moreover, it is ſaid, that the gall of that *Ægle (which I ſaid heretofore, to prove
C and trie her young birds, uſeth to force them for to looke directly upon the Sunne) mingled with the beſt honey of Athens, ſerveth to annoint the eyes, for the webs, filmes, and cataracts which trouble the eyeſight. Of the ſame operation is the gall of a Vulture or Geire, incorporat with the juice of Porret and a little honey. The like vertue alſo there is in the gall of a Cocke or Capon, for the pin and web, and for the pearle in the eye, if the ſame bee diſſolved in water; yea and for the cataract, eſpecially if the ſaid Cocke or Capon be all white. The dung likewiſe of Cocks and Capons, I meane that part onely thereof which is ruddie and browne, they ſay, is ſingular good for thoſe that be poreblind or ſhort ſighted, ſuch alſo as ſee not well but about noone tide. They commend moreover the gall of an Hen (but the fat eſpecially) for the little bliſters or ſpots that otherwhiles ariſe in the apple of the eie: In regard of which vertue, many there be that cram
D them fat, and for no cauſe elſe. But if there bee put thereto the pouder of the red bloud-ſtone Hæmatites, and the yellow ſaffron-coloured Schiſtos, it is wonderfull how much better it will bee for that purpoſe; yea, and to heale the tunicles of the eyes that bee broken. Moreover, Hens dung, as much onely of it I meane as is white, many uſe to keepe in old oile within certaine boxes of horne, for to cure the white pearles that grow in the apple of the eye. And ſince I am entered thus farre into the dung of Pullaine, I muſt advertiſe you what is reported of Peacocks, That they doe eat and ſwallow downe againe the ſame dung which themſelves have meuted, for very envie that they have unto mankind, knowing by a ſecret inſtinct of Nature how good it is for many uſes. Furthermore, it is an opinion commonly received, that all the race of Faulcons, if they be boiled in oile roſat, are ſoveraigne for any accidents of the eyes whatſoever,
E if they be bathed with that decoction. Semblably, it is ſaid, that their dung reduced into aſhes and incorporat in the beſt honey of Athens, is very good therefore: as alſo the liver of a Glede or Kite is much commended in thoſe caſes. Pigeons dung tempered in vinegre, cureth the fiſtulaes which are betweene the lachrymall corners of the eyes and the noſe: and otherwiſe is ſingular for the white pearles and the cicatrices or filmes growing in the eyes. Gooſe dung and Duckes bloud, be both of them very ſoveraigne for to ſoake out the blacke bloud in the eyes, occaſioned by ſome contuſion or bruiſe, with this regard, that they bee afterwards annointed with *Hyſſope
F and Honey. The gall of a Partridge mixed with honey, of each a like weight, mightily cleareth the eyeſight: ſo doth the gall of a fallow Deere applied ſimply alone, without any mixture or addition at all. But theſe gals ought to be kept in a ſilver box, ſay they who ground upon the authoritie of *Hippocrates* for their warrant. Partridge egges ſodden with honey in a braſen pan or poſnet, doe cure the ulcers in the eyes, and take away the red pearles ariſing in the black therof. The bloud of Pigeons, Turtledoves, Stockdoves, or Coiſts, and Partridges, is paſſing good for bloudſhotten eyes. But they ſay that the bloud of the Cocke Pigeons is better for this purpoſe than that of the female. Now for to fit this cure, they muſt be let bloud in the veine under the wing or

pinion,

Haliætoi, i. the ſea-Ægle or Orfray.

Hyſſope, unleſſe we read *Oeſypo*, which is the tried greaſe of unwaſhed wooll.

pinion, becauſe that bloud is whoter, and therefore by ſo much the better. But when the eyes be G
dreſſed with this bloud, it would not be forgotten, that there bee a thin bolſter boiled in honey,
laid aloft, yea, and a locke of greaſie wooll upon it, which had been ſoaked either in oile or wine.
The bloud of the foules abovenamed helpeth thoſe that cannot ſee toward a night: the liver al-
ſo of a ſheepe doth the ſame: but if the ſaid ſheepe be of a ruſſet or browne colour, the medicine
will doe the better: for as I obſerved before in Goats, thoſe that carie ſuch a coat, bee alwaies
eſteemed beſt. Many give counſell to foment and waſh the eyes with the decoction of the ſaid
liver: and if they be in paine and ſwoollen withall, they adviſe to annoint them with the marrow
of a Mutton. They promiſe alſo, That the aſhes of ſcrich-Owles eyes put into a collyrie, will
clarifie the ſight. Indeed the dung of Turtles conſumeth the white pearles in the eyes: ſo doth
the aſhes of ſhell-ſnailes or hoddidods: as alſo the meuting of the keſtrell Cenchris, which the H
Greeke writers will have to bee a kind of Hawke. As for the ſpot or pearle in the eye called Ar-
gema, it may be cured by all thoſe medicines above rehearſed, ſo that they bee applied thereto
with honey. But the beſt honey ſimply for the eyes, is that wherein a number of Bees were for-
ced to die. Whoſoever hath eaten a young Storke out of the neaſt, he ſhall (they ſay) continue
many yeares together, and never be troubled with inflamed or bleared eyes: like as they that ca-
rie about them a Dragons head. It is ſaid moreover, That the Dragons greaſe incorporat in ho-
ney and old oile, diſpatcheth and ſcattereth the filmes and webs that trouble the ſight, if they be
taken betimes before they be growne too thicke. Some there bee who at the full of a Moone put
out the eyes of young Swallowes, marking the time when they have recovered their ſight again:
for then they plucke off their heads and burne them to aſhes, which beeing tempered with ho- I
ney, they uſe for to cleare their owne ſight, to eaſe the paines, and diſcuſſe the blearednes of eyes,
yea, & to heale them, if they have caught a blow or ruſh. As for Lizards, they uſe to prepare them
many and ſundrie waies for the infirmities incident to the eyes: Some take the greene Lizard and
put her cloſe within a new earthen pot that never was occupied; and therewith nine of thoſe lit-
tle ſtones which the Greekes call *Cinædia, (and theſe are uſually applied unto the ſhare for the
ſwelling glandules & tumors that many times riſe there) marking every one of them reſpective-
ly by themſelves: which being done, they take forth of the pot every day one; & when the ninth
day is come, they let out the Lizard, and then they keepe the ſaid ſtones thus ordered and pre-
pared, as ſoveraigne remedies to allay the paine and greefe of the eyes. Others get a greene
Lizard and put out her eyes, and beſtow her in a glaſſe with a bed of earth under her in the bot- K
tome thereof, and withall, encloſe within the ſaid glaſſe certaine rings, either of ſolide yron or
maſſie gold: and ſo ſoone as they perceive through the glaſſe, that the Lizard hath recovered
her ſight againe, they let her forth: but the ſaid rings they keepe with great care and regard, as a
ſpeciall meanes for to helpe any bleared eyes. There bee moreover who uſe the aſhes of a Li-
zards head inſtead of Stibium or Antimonium, for to make ſmooth the roughneſſe of the eye-
lids. Some hunt after greene Lizards with long neckes, which breed in ſandie and gravellie
grounds, and when they be gotten, burne them to aſhes, with which they uſe to repreſſe the flux
of wateriſh humors which begin to fall into the eyes, yea, and therewith conſume the red pearls
growing therein. It is ſaid moreover, That if a Weaſels eyes bee pecked or plucked out of the
head, they will come againe, and ſhee will recover her ſight: and therefore they practiſe the like L
with rings and them together, as I obſerved before in Lizards. Furthermore, it is ſaid, That as
many as carrie about them the right eye of a ſerpent tied unto any part, it is very good for to ſtay
the violent rheumes that have taken to the eyes; but then in any wiſe the ſerpent muſt bee let
goe alive after that ſhee hath loſt her eye. As touching thoſe eyes which be evermore weeping,
and doe ſtand full of water continually, the aſhes of the ſtarre-Lizards head called Stellio, to-
gether with Antimonium, helpeth them exceeding much. The copweb which the common
ſpider maketh, that uſeth to catch flies; but eſpecially that which ſhe hath woven for her neaſt
or hole wherein ſhee lieth her ſelfe, is ſoveraigne good for the flux of humours into the eyes,
if the ſame bee applied all over the forehead, ſo as it meet with the temples on both ſides: But
wot you what, none muſt have the doing hereof, either to get the ſaid copwebs, or to lay it M
unto the place, but a young lad not as yet undergrowne, nor foureteene yeares of age: neither
muſt he beſeene of the partie whom hee cureth, in three daies after: ne yet during the ſpace of
thoſe three daies muſt either he or his patient touch the ground with their bare feet: Which
circumſtances and ceremonies beeing duly obſerved, it is wonderfull to ſee what a cure will

follow

*Becauſe they be found in the fiſh called Cinædi.

A follow thereupon. Furthermore, it is ſaid, That theſe white ſpiders with the long and ſlender legs, being punned and incorporat in old oile, bee ſingular for to conſume the white pearle in the eye, if the ſame bee dreſſed with that compoſition. Alſo thoſe ſpiders that worke ordinarily under rouſes, rafters, and bourded floores of houſes, and weave the thickeſt webs, if any of them bee enwrapped within a peece of cloth and kept bound to the eyes or forehead, doe reſtraine for ever the ſaid rheumes and catarrhes that have found a way to the eyes. The greene Beetle hath a propertie naturally to quicken their ſight who doe but behold them: and therefore theſe lapidaries and cutters or gravers in precious ſtones, if they may have an eye of them once and look upon them, take no more care for their eye-ſight, how it ſhould ſerve their turnes when they are at their worke. Thus much of eyes.

B As concerning the eares and the infirmities incident unto them, there is not a better thing to mundifie and cleanſe them than a ſheepes gall with honey: and a bitches milke if it bee dropped into them, eaſeth their paine. Dogs greaſe tempered with Wormwood and old oile, helpeth thoſe that be hard of hearing, ſo doth Gooſe greaſe: Howbeit, ſome put thereto the juice of an Onion and Garlicke, of each a like quantitie. In this caſe alſo there is much uſe of Ants egs alone without any thing els: for as little and ſillie a creature as it is, yet ſhe is not without ſome medicinable vertues: inſomuch, as Beares, when they feele themſelves ſickiſh or not well at eaſe, cure themſelves with eating Piſmires. As for the manner of preparing as well the greaſe of a Gooſe as of all other foules, this it is: Firſt the fat ought to be cleanſed and rid from all the skins, veins, and ſtrings that are among it, and then to bee laid abroad to the Sun in an earthen pan, covered over
C with a new lid of earth likewiſe which had never been uſed: this done, the foreſaid pan muſt bee ſet over ſeething water, that the ſaid greaſe may melt: and then it is to paſſe through linnen bags that it may be tried from all the groſſe cratchens: and ſo they put it up in a new earthen pot, and ſet it in ſome cold place againſt the time that it is to be uſed. Howbeit, this is well knowne, That if ſome honey be put thereto, it is leſſe ſubject to corruption or putrifaction. Moreover, the aſhes of burnt mice incorporat in honey, or els ſodden with oile of Roſes, allaieth the paine in the ears if it be inſtilled into them. But in caſe ſome earewig or ſuch like vermine be crept within the ears, there is not the like meanes to cauſe it to come forth againe, as is the gall of mice diſſolved in vi-
5 negre and dropped into them. Alſo when water is gotten into the head by the ears, Gooſe greaſe together with the juice of an Onion, is ſingular good to draw it out. Moreover, there is a notable
D medicine made of dormice for all infirmities of the eares, which otherwiſe could not bee cured, but were given over by all Phyſicians: for the making whereof, they take a dormouſe and flea it, and after the guts and entrailes be taken foorth, they ſeeth the ſame with honey in a new earthen veſſell. Howbeit, ſome Phyſicians there be who thinke it better to boile the ſame with Spikenard, untill a third part be conſumed, and ſo reſerve it for their uſe: and whenſoever after there is need of it, the manner is to infuſe the ſaid liquor warme into the eare by a pipe or inſtrument called an Otenchyte. This is knowne by experience to heale all the accidents of the eares, though otherwiſe incurable. Alſo the decoction of earth wormes boiled with Gooſe greaſe, is ſingular good likewiſe to be poured into the eares. But if the eares be exulcerat, broken out, and do run matter, the red wormes engendred about trees ſtamped in a morter with oile, are very proper to heale the
E ſame, if they bee applied thereto. Lizards that have hanged up a long time a drying with their mouths downeward, if they bee punned with ſalt, ſerve to heale the eares that have caught ſome hurt either by bruſe, cruſh, or ſtripe. But above all other, the Lizards that have brown ſpots upon them like ruſtie yron, and are ſtraked along the taile with lines, are moſt effectuall for theſe infirmities. As touching the Wooll beads or Caterpillers, which ſome call Millepedæ, others Multipedæ or Centipedæ, which are a kind of earthwormes keeping upon the ground, all hairie, having many feet, and courbing archwiſe as they creepe; and if you touch them, they will gather round together: the Greekes, ſome call them *Oniſcos, others Tylos: theſe *wormes (I ſay) are very effectuall to aſſuage the paine of the eares, if they be ſodden with the juice of Porret in the rind of a pomgranat: Some put thereto oile of Roſes, and give adviſe to poure this medicine in-
F to the contrarie eare that is not pained. As for that worme or vermine which riſeth not arch-wiſe with ſome part of the body in creeping, the Greeks ſome call it Seps, others Scolopendra; which though it be leſſe than the former deſcribed, yet miſcheevous ynough and venomous. The ſnails that carie ſhels upon their backe, and are uſually dreſſed for good meat, if they bee applied with Myrrhe or the pouder of Frankincenſe, are very good for the eares that be crackt: ſo are the little

*Plinie confoundeth *Oniſcos* (which we call a Sow or Wood-louſe) with the Caterpiller or Woolbead Millepeda.

*Indeed our Sows or woodlice, called otherwiſe Porcelliones, and Multipedæ, but not Millepedæ, and which if one touch thē, draw thēſelves roūd, are good for the pain of the eares: but not the foreſaid Woollbeads or Caterpillers, Millepedæ, which in their creeping riſe and fall, &c.

tle and broad ſnailes brought into the forme of a liniment with honey, and laid too accordingly. The ſloughs or skins that ſerpents caſt, calcined upon a tile or potſhard red hot, and ſo reduced into aſhes and incorporat with honey, are very medicinable for all the accidents of the eares, if the ſame be dropped into them; but principally when they ſtinke or yeeld from them a ſtrong ſavour: But if they bee full of purulent matter, and run withall, it were better to mingle the ſame with vinegre in ſtead of hony: but beſt of all with the gall of a Goat, a Bœufe, or a ſea Tortoiſe. The foreſaid ſloughs or skins if they bee above one yeare old, or have caught much wet by raine and water, have loſt their vertue and doe no good, as ſome are of opinion. Moreover, the bloudie humor that commeth from a ſpider, either tempered with oile of Roſes, or els alone by it ſelfe upon a locke of wooll, or with a little Saffron, is very good for the eares: ſo is the Cricket digged up and applied to the place earth and all where it lay. *Nigidius* attributeth many properties to this poore creature, and eſteemeth it not a little: but the Magicians much more a fair deale: and why ſo? Forſooth becauſe it goeth as it were reculing backward, it pierceth and boreth an hole into the ground, and never ceaſeth all night long to creake very ſhrill. The manner of hunting and catching them is this, They take a flie and tie it about the middeſt at the end of a long haire of ones head, and ſo put the ſaid flie into the mouth of the Crickets hole: but firſt they blow the duſt away with their mouth, for feare leaſt the flie ſhould hide her ſelfe therein: the Cricket ſpies the fillie flie, ſeaſeth upon her preſently and claſpeth her round, and ſo they are both drawne foorth together by the ſaid haire. The inner skin of a Hens giſier, which the cooke uſeth to caſt away, if it be kept and dried, and ſo beaten to pouder and mingled with wine, is good to bee dropped or poured hote into the eares that run with matter: ſo is the fat alſo of an Hen. There is a certaine kind of fattineſſe to bee found in the Flie or Inſect called * Blatta, when the head is plucked off, which if it be punned and mixed with oile of Roſes, is (as they ſay) wonderfull good for the eares: but the wooll wherein this medicine is enwrapped, and which is put into the eares, muſt not long tarie there, but within a little while be drawne forth againe; for the ſaid fat will very ſoone get life and prove a grub or little worme. Some writers there be who affirme, That two or three of theſe flies called Blattæ ſodden in oile, make a ſoveraigne medicine to cure the eares: and that if they bee ſtamped and ſpread upon a linnen rag and ſo applied, they will heale the eares, if they bee hurt by any bruiſe or contuſion: Certes this is but a naſtie and illfavoured vermine, howbeit in regard of the manifold and admirable properties which naturally it hath, as alſo of the induſtrie of our aunceſtours in ſearching out the nature of it, I am mooved to write thereof at large and to the full in this place. For they have deſcribed many kinds of them. In the firſt place, ſome of them be ſoft and tender, which being ſodden in oile, they have proved by experience to be of great efficacie in fetching off werts, if they be annointed therewith. A ſecond ſort there is, which they call Mylœcon, becauſe ordinarily it haunteth about mils and bake-houſes, and there breedeth: theſe, by the report of *Muſa* and *Pyction* two famous Phyſicians, beeing bruiſed (after their heads were gone) and applied to a bodie infected with the leproſie, cured the ſame perfitely. They of a third kind, beſides that they be otherwiſe illfavored ynough, carie a lothſome and odious ſmell with them: they are ſharpe rumped and pin buttockt alſo: howbeit, beeing incorporat with the oile of pitch called Piſſelæon, they have healed thoſe ulcers which were thought, *Nunquam ſana*, and incurable. Alſo within one and twentie daies after this plaſtre laid too, it hath been knowne to cure the ſwelling wens called the Kings evill: the botches or biles named Pani, wounds, contuſions, bruiſes, morimals, ſcabs, and fellons: but then their feet and wings were plucked off and caſt away. I make no doubt or queſtion, but that ſome of us are ſo daintie and fine eared, that our ſtomacke riſeth at the hearing onely of ſuch medicines: and yet I aſſure you, *Diodorus* a renowmed Phyſician, reporteth, That hee hath given theſe foure flies inwardly with roſin and honey, for the jaundiſe, and to thoſe that were ſo ſtreight winded that they could not draw their breath but ſitting upright. See what libertie and power over us theſe Phyſicians have, who to practiſe and trie concluſions upon our bodies, may exhibit unto their patients, what they liſt, bee it never ſo homely, ſo it goe under the name of a medicine. Howbeit, ſome of the more civile ſort, and who carried with them a better regard of manhood and humanitie, thought it better and a more cleanely kind of Phyſicke, to reſerve in boxes of horne the aſhes of them burnt, for the uſes abovenamed. Others alſo would beat them (after they were dried) into pouder, and miniſter them in manner of a clyſtre unto thoſe that were * Orthopnoicke and Rheumaticke.

G H I L M

*Which *Pliny* taketh for a kind of *Scarabæus* or Beetle.

**Orthopnoici*: Such as cannot take their wind but ſitting upright.

Certes,

A Certes, it is well knowne and confeſſed, that a liniment made of them, will draw foorth prickes, thorns, ſpils, and whatſoever ſticketh faſt within the fleſh. Moreover, the honey wherein Bees were extinct and killed, is ſoveraigne for the diſeaſes of the eares. As for the impoſtumes and ſwellings ariſing behind the eares, called Pacotides, Pigeons dung applied thereunto, either alone by it ſelfe, or with Barley meale or Oatmeale, driveth them backe or keepeth them downe. Alſo the liver or braines of an Owle, beeing reſolved in ſome convenient liquor, and applied accordingly, cureth the accidents of the lap of the eare, and the foreſaid impoſtumations, ſo dooth a liniment made of the wormes called Sowes, together with a third part of roſin: and laſtly, the cricquets above rehearſed, either reduced into a liniment, or elſe bound too, whole as they be, are good in theſe caſes. Thus much concerning thoſe maladies above ſpecified. It remaineth now to proceed
B unto other diſeaſes, and the medicinable receits reſpective unto them, drawne either from the ſame creatures, or elſe from others of that kind: whereof I purpoſe to treat and diſcourſe in the next booke enſuing.

C

THE XXX. BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

D

¶ The Proëme.

Chap. I.

The originall and beginning of Art Magicke. When it firſt began, and who were the inventors of it. By whom it was practiſed and advaunced. Alſo other receits or medicines drawne from beaſts.

E THe follie and vanitie of Art Magicke I have oftentimes alreadie taxed and confuted ſufficiently in my former books, when and whereſoever juſt occaſion and fit opportunitie was offered: and ſtill my purpoſe and intention is to diſcover and lay open the abuſe therof in ſome few points behind. And yet I muſt needs ſay, the argument is ſuch as deſerveth a large and ample diſcourſe, if ther were no more but this only to induce me, That notwithſtanding it be of all arts fulleſt of fraud, deceit, and couſenage, yet never was there any throughout the whole world either with like credit profeſſed, or ſo long time upheld and maintained. Now, if a man conſider the thing well, no marvaile it is that it hath continued thus in ſo great requeſt and authoritie; for it is the onely Science which ſeemeth to compriſe in it ſelfe three profeſſions beſides, which have the command and rule of mans mind above any other whatſoever. For to begin withall, no man doubteth but that Magicke tooke root firſt, and proceeded from Phyſicke, under the pretence of
F maintaining health, curing, and preventing diſeaſes: things plauſible to the world, crept and inſinuated farther into the heart of man, with a deepe conceit of ſome high and divine matter therein more than ordinarie, and in compariſon whereof, all other Phyſicke was but baſely accounted. And having thus made way and entrance, the better, to fortifie it ſelfe, and to give a goodly colour and luſtre to thoſe fair and flattering promiſes of things, which our nature is moſt given

given to hearken after, on goeth the habite also and cloake of religion: a point, I may tell you, G
that even in these daies holdeth captivate the spirit of man, and draweth away with it a greater part of the world, and nothing so much. But not content with this successe and good proceeding, to gather more strength and win a greater name, shee entermingled with medicinable receits and religious ceremonies, the skill of Astrologie and arts Mathematicall; presuming upon this, That all men by nature are very curious and desirous to know their future fortunes, and what shall betide them hereafter, perswading themselves, that all such fore-knowledge dependeth upon the course and influence of the starres, which give the truest and most certaine light of things to come. Being thus wholly possessed of men, and having their sences and understanding by this meanes fast ynough bound with three sure chains, no marvell if this art grew in processe of time to such an head, that it was and is at this day reputed by most nations of the earth for the para- H
gon and cheese of all sciences: insomuch as the mightie kings and monarchs of the Levant, are altogether ruled and governed thereby. And verely there is no question at all, but that in those East parts, and namely in the realme of Persia, it found first footing, and was invented and practised there, by * *Zoroastres*, as all writers in one accord agree. But whether there was but that one *Zoroastres*, or more afterwards of that name, it is not yet so certainely resolved upon by all Authors: for *Eudoxus* (who held art Magicke to be of all professions Philosophicall and learned disciplines, the most excellent and profitable science) hath recorded, That this *Zoroastres*, to whom is ascribed the invention thereof, lived and flourished * 6000 yeares before the death of *Plato*. And of his mind is *Aristotle* also. Howbeit *Hermippus*, who wrote of that art most exquisitely, and commented upon the Poëme of *Zoroastres*, containing * a hundred thousand verses twentie I
times told, of his making; and made besides a Repertorie or Index to every book of the said Poësie: this *Hermippus* (I say) reporteth, That one *Azonaces* taught *Zoroastres* Art-Magicke; which maister of his lived 5000 years before the war of Troy. Certes, I cannot chuse but marvell much, first, that this science and the memoriall therof should so long continue, and the Commentaries treating of it not miscarie and be lost all the while, during such a world of years: considering besides, that neither it was ordinarily practised and continued by tradition from age to age, nor the successors in that facultie were professours of the greatest name, and renowned by any writings. For what one is there thinke you among so many thousands, that hath any knowledge, so much as by bare hearesay, of those who are named for the onely Magicians in their time, to wit, *Apuscorus* and *Zaratus*, Medians; *Marmaridius* of Babylon; *Hippotus* the Arabian; and *Zarmocenidas* of Assyria? For bookes have we none extant of their writing, nor any monuments which K
beare record and give testimonie of such clearks. But the greatest wonder of all is this, that *Homer* the Poet, in his Ilias (a Poëme composed purposedly of the Trojane warre) hath not so much as one word of Magicke: and yet in his Odyssæa, where he discourseth of the adventures, travails, and fortunes of prince *Vlysses*, such adoe and stir there is with it, as though the whole worke consisted of nothing els but Magicke. For what is meant by the variable transformations of * *Proteus*, or by the songs of the * Meremaids, whereof hee writeth so much; but that the one was a great sorcerer, the other famous witches or enchauntresses? As for that which he relateth of lady *Circe* how she wrought her feats by conjuration only and raising up infernall spirits; surely it favoureth of art Magicke and nothing els. I muse much also, that after *Homers* time there is no writer ma- L
keth mention how this art arrived at Telmessus, a citie [in the marches of Lycia] wholly addicted to religion, and so famous for the colledge of priests & soothsayers there: or at what time it made a voiage & passed over into Thessalie; where it reigned so rife and was so usually practised in every towne and citie, that with us here in these parts of the world, it tooke the denomination of * that countrey, and retained the same for a long time, notwithstanding that the word Magicke indeed was appropriat unto a strange and far remote nation. And verely, considering how about the time of the war and destruction of Troy, there was no other Physicke in use but that which *Chiron* the Chirurgian practised, and that during the heat and bloudy wars only; it seemeth very strange and wonderfull unto me, that the nation of Thessalie, and the native country of *Achilles* [and *Chiron*] should become so famous for Magick: insomuch as *Menander* also (a Poet by all mens judgment M
so framed by nature for deep learning and exquisit literature, as that he had no concurrent in his time that came neare unto him) entituled one of his comœdies, Thessalica; wherein he deciphered and depainted lively unto us, the whole order and manner of witches with all their charms and incantations, by the vertue wherof they would seem to pull the Moon down from heaven. I would

have

* King of the Bactrians, which some take to be *Abraham*.

* It seemeth that in this calculation of yeares, *Plinie* mistaketh the number: For *Plutarch* saith he lived 600 yeares before the Troiane war: or els that he meaneth *Lunares annos*.

* *Vicies centum millia versum*, i. two millions of verses.

* *Diodorus Siculus* saith, That this was a meer fiction, arising hereupon, That *Proteus* being a king of Ægypt, according to the custome of the Ægiptiã kings, for greater maiestie and state, shewed himself abroad adorned with the ensigns, representing a Bull, Dragon, Liõ, Tree, Fire, and such like: altering eftsoons these ornamẽts, which cõtained some hieroglyphicall mysteries appropriat to the person of a king.

* Three daughters of *Achelous* & *Calliope*: whose names were *Parthenope*, *Ligia*, and *Leucosia*, reputed witches, & able to doe great matters by charmes.

* For properly the *Magi* were the wise men of Persia, and yet at Rome they usually tearmed Magicians by the name of Thessalians.

A have thought that *Orpheus* soone after and in the age next ensuing, had brought in first these superstitious ceremonies, by reason of the propinquitie and neighbourhood of that region, and that he proceeded therewith to the advancement of physicke, but for one thing which plucketh me backe; namely, That Thrace his naturall countrey and the place of his birth, was altogither ignorant of Magicke, and knew not what it meant. But as far as ever I could find, the first that is recorded to have commented and written of this Art, was *Osthanes*, who accompanied *Xerxes* K. of the Persians, in that voiage and expedition which (in warlike maner) he made into Greece: and to say a truth, he it was that sowed the seeds of this monstrous Art, and infected therewith by the way, all parts of the world whersoever he went and came. Howbeit, those authors and historiographers who have searched more nearely into the matter, set down another *Zoroastres*, borne
B in the Isle Proconnesus, who wrote somewhat before *Osthanes*, of that argument: nevertheless, this is held for certaine, That *Osthanes* was the man, who most of all other set the Greeke nations not only in a hot desire, but also in a madding fit and enraged as it were, after Magicke. And yet I must needs say that I have observed, that not onely at first, but also from time to time, the greatest name that went of learned men and great philosophers, for their singular skill and profound knowledge, arose from the opinion that was of their insight in this Science. Certaine it is, that
4 *Pythagoras*, *Empedocles*, *Democritus*, and *Plato*, were so far in love therewith, that for to attaine the knowledge thereof, they undertooke many voiages and journies over sea and land, as exiled and banished persons, wandering from place to place, more like travailers than students; and
C being returned home againe into their owne countries, this Art they blazed abroad and highly praised; this they held as a secret and divine mysterie. As for *Democritus*, he raised a great name of *Apollonices Captidenes*, and *Dardanus* of Phœnicia, as well by the books of *Dardanus* his master (which he fetched from out of his sepulchre where they were bestowed) as also by publishing commentaries of his owne, which were extracts and draughts out of those authors and their writings; which afterwards, received and learned by others, so passed from hand to hand, and were
2 so deeply engraven and imprinted in the minds and memories of men, that I assure you I woonder at nothing in the world so much; for so full they are of lyes, & so little or no truth, godlinesse, and honestie is conteined in them, that men of judgement and understanding who approove and esteeme his other books of Philosophie, will not beleeve that these works were of *Democri-*
D *tus* his making: howbeit, this is but a vaine conceit and persuasion of theirs; for well it is known and confessed, that *Democritus* led away an infinit number of people by this means, and no man so much; filling their heads with many faire promises, and the sweet impression thereof ravished their spirits after this Art. Moreover, there is yet one point more, whereat I woonder as much as at any other; to wit, that these two professions (Physicke I meane, and Magicke) flourished both togither in one age, and shewed themselves in their greatest glorie: which was about the Peloponnesiacke warre in Greece, three hundred yeers after the foundation of our citie of Rome; at what time as *Hippocrates* professed the one, & *Democritus* for his part published the other. Now there is another faction (as it were) of Magicians, which tooke the first foundation from *Moses*;
E * *Iamnes*, and *Iotapes*, Iewes; but many thousands of yeers after *Zoroastres*: and yet the *Cyprian Magicke is later than so by as many yeers. But to come again unto our Magick abovesaid: there was a second *Osthanes* in the daies of K. *Alexander* the Great, who (by reason that he attended upon him in his traine, during his journies and voiages that he made) was himselfe in great reputation abroad, and by meanes thereof gave no small credit and authoritie to this profession; for that he had opportunitie thereby (as no man need to doubt) to travaile and compasse the globe of the Earth, & so to spread and divulge this learning in all parts. And verely, that this doctrine hath been heretofore received in some nations of Italy, it appeareth as well by good evidences and records extant at this day in the bodie of our Law written in the twelve tables, as by other arguments and testimonies which I have alledged in the former booke. Certes, in the 657 yeere after the foundation of Rome citie, and not before (which fell out to be when *Cn. Cornelius Le-*
F *pidus* and *P. Licinius Crassus* were Consuls) there passed a decree and act of the Senat, forbidding expressely the killing of mankind for sacrifice: wherby we may evidently see, that untill this inhibition or restraint came forth, our progenitors and ancestors were given to these inhumane and monstrous sacrifices. No question there is verely, but that this Art of Magicke was professed in Fraunce, and continued untill our daies: for no longer is it agoe than since the time of *Tiberius Cæsar*, that their Druidæ (the Priests and Wise men of France) were by his authoritie put downe,

togither

* It should seeme that these were the Magicians of *Pharao*, of who S. *Paul* 2. *Tim.* 3. *chap.* maketh mention, who would have counterfeited the miracles wrought by *Moses*: where note, that *Plinie*, ignorant in the holie Scriptures & void of true religion, rangeth *Moses* the prophet & faithful servant of almightie God, with such sorcerers and enchanters. For the Painims, wanting the light of the gospell, attributed all effects and operatiõs above nature, to Magick; & were not able to distinguish between miracles done by the finger of God or his ministers, and the illusions practised by the devill and his limbs.

* Some interpret this to bee meant of Christianitie, which was received with the first in Cypros by the preaching of the Gospell, and as it is thought, by S. *Barnabas*: for that during the infancie of the primitive Church, manie miracles were wrought by the Apostles and Disciples of our Saviour Iesus Christ, the heathen hold that Religion of Christians to be a kind of Magicke. Others understãd this place, of the priests of *Cyprian Venus* called *Cynareans*.

togither with all the pack of ſuch phyſicians, prophets, and wizards. But what ſhould I diſcourſe any longer in this wiſe, of that Art which hath paſſed over the wide ocean alſo, and gone as far as any land is to be ſeene, even to the utmoſt bounds of the earth; and beyond which, there is nothing to be diſcovered but a vaſt proſpect of Aire and Water. And verely in Britaine at this day it is highly honoured, where the people are ſo wholly devoted unto it, with all reverence and religious obſervation of ceremonies, that a man would thinke, the Perſians firſt learned all their Magicke from * them. See how this Art and the practiſe thereof is ſpread over the face of the whole earth! and how * thoſe nations were conformable enough to the reſt of the world in giving entertainment thereto, who in all other reſpects are far different and divided from them, yea and in manner altogither unknowne unto them. In which regard, the benefit is ineſtimable that the world hath received by the great providence of our Romans, who have aboliſhed theſe monſtrous and abominable Arts, which under the ſhew of religion, murdred men for ſacrifices to pleaſe the gods; and under the colour of Phyſicke, preſcribed the fleſh to be eaten as moſt holeſome meat.

* As it appeareth by our old Engliſh Chronicles, which write of K. *Arthur*, the knights of the round table, and *Merlin* the prophet or magician.

* No doubt hee meaneth Englād, Scotland, and Irelād, which ſeemed to be ſeparat from the reſt of the world; where, in old time Magicke bare a great ſway, and witches ſtill ſwarm too much.

Chap. II.

The ſundrie kinds of Magicke. The execrable acts of Nero: and the deteſtation of Magicians.

MAgicke may be practiſed after divers ſorts, according as *Oſthanes* hath ſet downe in writing: for it worketh by the means of [1] Water, [2] Globes or Balls, [3] Aire, [4] Stars, [5] Fire-lights, [6] Baſons, and [7] Axes: yea and many other means there be, that promiſe the fore-knowledge of things to come: beſides the raiſing up & conjuring of ghoſts departed, the conference alſo with Familiars and ſpirits infernall. And all theſe were found out in our daies, to be no better than vanities and falſe illuſions, and that by the Emperour *Nero*. And yet was he never more addicted to play upon the cythern, nor tooke greater pleaſure to hear and ſing tragicall ſongs, than to ſtudie art Magicke: and no marveile if he were given to ſuch ſtraunge courſes, having wealth and world at will; and his fortunes beſides attended upon and accompanied with many deepe corruptions of the mind. But amid thoſe manifold vices whereunto hee had betaken and ſold himſelfe, a principall deſire hee had, to have the gods (forſooth) and familiar ſpirits at his commaund; thinking that if he could have attained once to that, he had then climbed up to the higheſt point and pitch of magnanimitie. Never was there man that ſtudied harder, and followed any Art more earneſtly, than he did Magicke. Riches he had enough under his hands, and power he wanted not to execute what he would; his wit was quicke and pregnant, to apprehend and learne any thing, over and beſides other means that he practiſed for to bring about this deſſeine of his, which were ſo intollerable, that the world could not endure them: and yet hee gave it over in the end without effect: an undoubted & peremptorie argument to convince the vanitie of this Art, when ſuch an one as *Nero* rejected it. But would to God he had conferred with familiars and ſpirits, yea and taken counſell of all the devils in hell, for to bee reſolved of thoſe ſuſpicions which were gotten into his head, rather than given commiſſion as hee did to the profeſſed bawds and common harlots in ſtinking ſtewes and brothell-houſes, for to make inquiſition from houſe to houſe after thoſe whome he had in jealouſie. Certes, no bloudie and deteſtable ſacrifices (how inhumane and barbarous ſoever) he could have performed, but they had been far more eaſie and tollerable, than thoſe cruell imaginations which he conceived, and whereupon he murdred moſt piteouſly ſo many good citizens, and filled Rome with their reſtleſſe ghoſts. But to returne again to Art-magick, which *Nero* would ſo faine have learned: what might be the reaſon that he could not reach unto it? Surely theſe Magicians are not without their ſhifts and means of evaſion to ſave the credit of their Art, if haply they miſſe and come ſhort at any time of their purpoſe: For otherwhiles they beare us in hand, that ghoſts and ſpirits will not appeare, nor yeeld any ſervice to thoſe perſons who are * freckled and full of pimples: and haply * *Nero* the Emperor was ſuch an one. As for his lims otherwiſe, he had them all, and ſound they were: beſides, the ſet daies and times fit for this practiſe, and preſcribed by Magicians, he might chuſe at his good will and pleaſure. Moreover, an eaſie matter it was for him to meet with ſheepe, cole-black, and ſuch as had not a ſpeck of white or any other colour; for him (I ſay) who when he liſt could ſacrifice men, & tooke greateſt delight in thoſe ſacrifices. Furthermore, he had about him *Tyridates* the K. of Armenia, a great Magician, for to give him inſtructions. This prince *Tyridates* being vanquiſhed and ſubdued

1 *Hydromantia.*
2 *Sphæromantia.*
3 *Aëromantia.*
4 *Aſtrologia.*
5 *Pyromantia.*
6 *Lecanomantia.*
7 *Axinomantia.*

* *Lentiginoſis.*
* *Suetonius in Nérone: Corpore fuit maculoſo & fœdo:* i. His skin was full of foule ſpots.

A dued by the Romane captains under *Nero*, and forced by their capitulations to present himselfe personally at Rome for to doe homage unto the emperour, travailed thither all the way by land (which was a sore charge to the countries and provinces through which he passed, bringing with him as he did the whole pompe and traine for the triumph over Armenia and himselfe) & came unto *Cæsar*. And why would not this *Tyridates* passe the seas and saile over into Italy the neareſt and most expedit way? Forsooth, so precise he was, that he made a scruple, and thought it unlawfull (as all magicians doe) either to spit into the sea, or otherwise to discharge into it the necessarie excrements that passe from mans bodie, thereby to pollute and defile that Element. Many other magicians he brought with him in his traine. Hee instructed *Nero* in the principles of Magicke, yea and admitted him to their sacred feasts and solemne suppers, & all to enter him into that pro-
B fession: but it would not be: for albeit *Nero* enthronized & enstalled *Tyridates* in his kingdome, and gave him his roialties againe, all would not serve; for never could he receive at his hands by way of remuneration and recompence, the skill of this Science. And therefore we may be fully assured and boldly conclude, That it is a detestable & abhominable Art, grounded upon no certaine rules; full of lies and vanities, howsoever it carrie some shew or shadow rather of veritie: and to say a truth, that certitude which it hath in effecting any thing, proceedeth rather from the devilish cast of poisoning practised therewith, than from the Art it selfe of Magicke. But what needs any man to seeke and hearken after the lies which the Magicians in old time have let flie and sent abroad? When I my selfe in my youth have seene and heard *Apion* (that great and famous Grammarian) tell straunge tales of the hearbe Cynocephalia, which the Ægyptians call
C Osyrites, and namely, that it hath a divine and heavenly vertue, and was a singular preservative against all poisons, charms, & enchantments; but whosoever plucked or drew it out of the ground (saith he) could not escape present death. The same *Appion* reported in my hearing, that he hath conjured and raised up spirits, to * enquire and learne of *Homer*, what countryman born he was? and from what parents descended? mary he durst not report what answer was made againe, either unto him or them.

* *Adsciscitandi Homerum.*

Chap. iii.

Of Mould-warps: and of many other medicines taken from sundrie beasts, which are in their kind either tame or wild: and the same medicines digested according to diseases as they orderly follow.

D

ONe speciall argument this may be, to proove the follie and vanitie of Magicians, because of all other living creatures, they do admire and set greatest store by these wants or mouls, which Nature seemeth to have condemned to perpetuall blindnesse and prison, shutting them up as it were evermore in a darke dungeon, or keeping them rather under the earth, like as they were buried and enterred. And yet for all this, these Wise men give more beleefe to those signes which they spie in their bowels and entrailes when they be opened, than to the inwards of any beast whatsoever. This opinion moreover they have of a mould-warpe, that there is not a creature more capable of religion, and fitter to be emploied in sacrifice and divine service, than
E it: nay they bash not to avouch & warrant, That whosoever swalloweth down all whole the heart of a moule fresh killed, whiles it is yet warme and panting with life in it, shall have the gift of divination, and foretell the event and issue of any businesse in hand. Moreover, they affirme, that the tooth of a mould-warpe taken out of her head whiles shee is alive, is singular to allay the toothach, if it be hanged about the necke or tied to any part of the bodie. They talke of many other wonders wrought by this poore creature, which I purpose to deliver as occasion shall be offered, in place convenient. And yet when they have all said that they can of them, that which carrieth the greatest likelihood and probabilitie, is this, That they should bee good against the biting of these musets or hardishrews, for, as you have heard me say before, the very earth that is pressed down with the wheels in a cart-tract, is proper for that purpose. But to leave these mouls & to follow on still with this maladie of toothach, the said Magicians tell us a medicine made of the ashes
F of a dogs head (dying of madnesse) that it should be passing good therfore, if it be mixed with the oile Cyprinum, and so dropped into the ear on the pained side: howbeit this care would be had, That the said doggs head have no flesh at all sticking to the scalpe or scull, when it is burned and calcined. They say moreover, that the greatest eye-tooth of a dog growing on the left side of his

head ſerveth well for this grievance, if the tooth that is in paine be ſcarrified round about there- G
with. Alſo a bone growing out uf the ridge or chine of a dragon, will do as much; or that of the ſerpent called Enhydris. Now are theſe ſerpents white of colour, and held all to be the male. The greateſt tooth of this Enhydris is thought to be ſingular for to ſcarrifie or to let the painful tooth bloud therwith: but in caſe the teeth in the upper chaw doe ake, they take two of the upper teeth of this ſerpent, and apply them faſt thereto; but contrariwiſe of the neather jaw. They that hunt after crocodiles, uſe to greaſe themſelves with the fat of this ſerpent. Moreover, it is good by their ſaying, to ſcarrifie the gumbs about the teeth with the bones taken out of a lizards fore-head at the full of the moone; with this regard, that the ſame in any wiſe touch not the ground. Some of them there be who make a collution with dogs teeth ſodden in wine untill the one halfe be conſumed, and therewith waſh the teeth that ake: but the aſhes of the ſaid teeth incorporat H
in hony, are ſingular good for little children which have much a doe in breeding their teeth. The ſame medecine is holden to be an excellent dentifrice for to make teeth looke white. If the teeth that ake be hollow, they uſe to put into the concavitie thereof, the ſaid aſhes incorporat in mice dung, or elſe the liver of a lizard dried. Alſo if one that is troubled with tooth-ach, ſet his teeth in a ſnakes heart and bite it, or hang the ſame about the necke or otherwiſe, it is thought to be an effectuall remedie for the ſaid diſeaſe Others there be of theſe magicians, who preſcribe to chew and eat the fleſh of a mouſe twice in a month, and they aſſure us by this means that we ſhall pre-
vent and avoid the tooth-ach. Moreover, it is ſaid, that a decoction of earthworms boiled in oile and poured into the eare on that ſide where the toothach is, doth give great eaſement of paine. The aſhes of the ſame mads burnt, put into the hole of a tooth that is rotten or worme-eaten, I
cauſeth it to fall out of the head with eaſe: and if the teeth that doe ake be ſound, rub them with the ſaid aſhes and the paine will ceaſe. Now the ſaid worms ought to bee burnt or calcined upon a tyle or potſheard. Alſo a decoction of this kind of worms ſodden in ſquilliticke vinegre with the root of a mulberrie tree, is a ſoveraigne medecine to waſh the teeth withall when they be in
*Veneris Labrũ. paine. Furthermore, the little grub or worme which is found in the hearbe Tazill, called * *Venus* Laver, hath a woonderfull operation to cure the tooth-ach, if it bee put into the hole of a faultie tooth: and no marveile, for the caterpillers that breed in coleworts, will preſently fall off if they be but touched with this worme. The punaiſes alſo or wall-lice that come from mallowes, infuſed into the ears with oile roſat, aſſuage the toothach. The ſmall ſandie grit that is found in the horns of ſhell-ſnails, conveighed into an hollow tooth, preſently allaieth the paine. The bare ſhells of K
the ſaid ſnails, hollow as they be and void, calcined and reduced into aſhes, and incorporat with myrrhe, are paſſing good for the gumbs: but the aſhes of a ſerpent burnt and calcined in an earthen pot, with ſalt among, helpeth the tooth-ach, if it be inſtilled into the eare on the contrarie ſide, with oile of roſes. The skin of a ſnake which ſhe hath caſt in the Spring, made hote in oile and the roſin of torchwood, is ſingular in this caſe to be inſtilled into either of the ears, it makes no matter which: ſome put therto frankincenſe and oile roſat. The ſaid ſlough or skin of a ſnake thus prepared and put into an hollow tooth, cauſeth the ſame to fall out of the head without any paine or griefe at all. As touching white ſnakes, how they caſt their ſlough at the riſing or apparition of the Dog-ſtarre, I hold it to be a meere fable; for it was never ſeene or knowne, that they did ſo in Italie: much leſſe therefore is it credible, that in hot countries they ſhould be L
ſo late ere they caſt their ſlough. Moreover, it is commonly beleeved, that the ſaid ſlough kept long and incorporat with wax, draweth out a tooth moſt ſpeedily, if it be applied thereto. Alſo, ſnakes teeth, either worne about the necke or laid to teeth in paine, aſſuage their griefe. Some are of opinion, that a verie ſpider all whole as it is, caught with the left hand, bruiſed and incorporat in oile of roſes, and ſo dropped into the eare of the ſame ſide that the teeth ake, is very good to mitigat the paine. It is ſaid alſo, that if a man take all the little bones of an hen (and ſave thoſe onely of the legs whole that be hollow) and keepe them in the hole or cranie of a wall, and with one of the ſaid bones either hitt the tooth that aketh, or ſcarrifie the gumbe about it, and then preſently caſt it away when he hath done with it, the paine will immediatly be gone. The like ef-
fect hath the dung of a raven, applied hard unto the place within a locke of wooll: likewiſe of M
ſparrows, tempered in oile hot and poured into the eare that is next unto the pained tooth; but ſurely it will cauſe an intollerable itch: and therefore many thinke it a more ſafe and eaſie remedie, to burne young ſparrowes in a fire made of vine-twiggs, and the aſhes that commeth from them to temper with vinegre, and therewith to rub the ſaid teeth.

CHAP.

Chap. iiii.

How to procure a sweet breath. Means to take away the spots that blemish the face: and to amend the infirmities incident to the throat.

A IT is said, that for to rectifie the offence of a strong and stinking breath, and to make it sweet and pleasant, it is good to rub the teeth with the ashes of mice burnt, and incorporat with honey. Some there bee, who mingle therewith the root of fennell. If the teeth be pricked or scraped with a vulturs quill, it will cause the breath to be sowre: but to do the same with the quill or prick of a porkepine, is a singular thing to strengthen the teeth and keepe them fast in the head. As touching the sores in the tongue, or the scabs and little ulcers breaking out about the lips, a de-
B coction of swallows sodden in honyed wine, healeth them: but if the lips bee chapped, there is not a better thing than to annoint them with the grease of a goose or hen. For the same purpose serveth the tried or rindled greace of sweatie wooll, beeing incorporat with the powder of gall-nuts: also the white copwebs that spiders doe weave, or els the little fine ones which they worke under the planks and floors of high lofts, or roufs of housen. * If one chance to burn his mouth inwardly with some scalding broth or otherwise, the milke that a bitch giveth is a present remedie therefore.

* *Si ferventia os intus exusserint:* peradventure hee meaneth the hote sores within the mouth, called *Aphthæ*.

As touching the spots that infect the skin of the face, the foresaid tried grease of wooll unwashed, called œsypum, incorporat with the hony of the Iland Corfica (which of all other is counted most unpleasant and untoothsome) is proper to subtiliat and scoure them: the same also laid
C to the face upon a locke of wooll, causeth the scurfe or scales whereby the skin seemeth to pill, for to fall away: howbeit, some thinke it better to put honey thereto. But say there appeare upon the face any foule and thick morphew that hath pierced deepe into the skin, it is good to rub the same with dogs gall; but first the place ought to be pricked thick with a needle, that the medicine may enter in. If the skin looke wan, or black and blew, take the lights of rams or other sheepe, cut them into thin slices like unto skins, and lay them hot to the place; or els apply thereto pigeons dung. The fat of a goose or hen, is a singular thing to preserve or keepe soft, smooth, and delicat, the skin of the face. As for the ringworms or illfavoured tettars called Lichenes, there is a proper liniment made either of the dung of mice incorporat with vinegre, or the ashes of an urchin tempered with oile. But in this cure, the face ought to be bathed and fomented before with vine-
D gre and salnitre. For to take away any spots or pimples arising in the face, there is not a better thing to apply unto them than the ashes of the little broad snails which are commonly found in every place, incorporat with hony. And in truth, the ashes of any snails whatsoever, are astringent and hot, by reason of a certaine absterfive qualitie that they have; which is the reason that they enter into potentiall cauteries, or caustick and corrosive medicines: and therefore they serve in liniments for to kill scabs, scurfs, mange, and leprosie; yea and to scoure away the foule spots called Lentils. Moreover, I read in authors of certain pismires greater than the rest, called Herculaneæ, the which being stamped with a little salt put unto them, are good for all the infections of the skin mentioned in the former receit. There is a kind of insect or flie called Bupreſtis, passing like unto a long-legged beetle; but seldome or never bee any such found in Italy: kine and oxen
E catch much harme by this flie; for many times as they grase, they licke it up with the grasse and swallow it downe: and hereupon it tooke that name Bupreſtis: for no sooner commeth it to the gall, but it inflameth and setteth the beast into a great heat, whereupon it swelleth untill it burst againe. So corrosive it is (as I have said before) that beeing incorporat with goat sewer, and so reduced into a liniment, it taketh away the tettars called Lichenes that be in the face. The bloud of a vultur [*i.* a geire] tempered with the root of white Chamæleon (I mean the hearb so called) and the rosin of cedar, healeth the leprosie, so that this liniment be covered with colewort leaves. Of the same effect are the feet of locusts braied in a mortar and incorporat with goats tallow. The greace of a cock, capon, or hen, well stamped and wrought with an onion, is singular to scoure the spots and specks of the visage: also the hony wherein a number of bees were stifled and killed, is
F proper for the said purpose: But above all, the greace of a swan is commended both for to cleanse the skin of the face from all flecks and freckles, and also to take away wrinkles. As for the markes remaining after the cauterie or hot yron, there is no better means to take them out, than a plastre of pigeons dung and vinegre. If the rheume cause the mur, the pose, or heavinesse in head, I find a pretie medecine to rid it away, by kissing onely the little hairie muzzle of a mouse.

As touching the uvula and paine of the throat, they may bee both of them eaſed and cured with lambs ordure, which paſſeth from them before they have bitten graſſe dried in the ſhade. The juice or ſlimie humor that ſhel-ſnails yeeld when they be pricked through with a pin or needle, is ſingular good in a liniment for to be applied unto the uvula; provided alwaies, that thoſe ſhailes doe hang after, in the ſmoke. The aſhes that come of ſwallows calcined and burnt, is likewiſe verie ſoveraigne, beeing laid to the grieved place with honey: and in that ſort prepared, it ſerveth alſo for the inflammation and ſwelling of the tonſils or amygdals of the throat. For the ſaid tonſils and other accidents of the throat, a gargariſme of ewes milke is right ſoveraigne. There is a certaine creeper called a * Cheeſlip, which if it be bruiſed or ſtamped, is good for the ſaid infirmities: ſo is pigeons dung gargarized with wine cuit, or applyed outwardly with ſalnitre and dried figs. If the throat be troubled with hoarſneſſe, occaſioned by rheume or catarrhe, theforeſaid ſhell ſnails doe greatly mitigat the ſame infirmitie, beeing firſt ſodden in milke (all ſave the earthie or muddie ſubſtance which they muſt bee cleanſed from) and then given in wine cuit to the patient for to drinke. Some hold opinion, that the ſnails found in the Iſle Aſtypalæa, are the beſt of all others for this purpoſe, but principally the abſterſive ſubſtance that is found in them. The cricquet called Gryllus, doth mitigat catarrhs and all aſperities offending the throat, if the ſame bee rubbed therewith: alſo if a man doe but touch the amygdals or almonds of the throat, with the hand wherewith he hath bruiſed or cruſhed the ſaid cricquet, it will appeaſe the inflammations thereof. To come now unto the Squinancie: a gooſe gall incorporat with the juice of the wild cucumber and honey togither, is a moſt ſpeedie and preſent remedie for it: alſo the brains of an owle, and the aſhes of a ſwallow drunke in water well and hot, is good for the ſaid diſeaſe: But for this medicine we are beholden to the Poët *Ovid*. Note that when I ſpeake of any medicine (for what maladie ſoever) made of ſwallows, the young wild ones are alwaies the better and more effectuall in operatiou: * and thoſe you may know eaſily by the faſhion of their neſts where they doe build: But if you would have the beſt indeed, the young ones of that kind which are called Ripariæ, paſſe all the reſt for medicinable uſes, for ſo are they commonly named which build in the holes of banke ſides. Howbeit, ſome there be who aſſure us, that we ſhall not need to feare that diſeaſe for a yeare togither, if wee doe but eat any young ſwallow, it skills not of what kind ſoever it be. Now the order of calcining them for their aſhes, is to ſtrangle them firſt, and ſo to burne them in their bloud within an earthen veſſell: and the aſhes thus made, is uſually given either wrought in paſt for bread, or els to be drunke: and ſome there be who mingle withall, the like quantitie of the aſhes which come of weazils. And this kind of medicine thus prepared, they give in drinke everie day againſt the kings evill, and falling ſickneſſe. Moreover, ſwallowes kept and condite in ſalt, are paſſing good for the ſquinancie, taken in drinke to the weight of a dram at a time: and it is ſaid, that their very neſt given in drinke, cureth the ſaid maladie. It is a common opinion, that a liniment made with the creepers called Sowes or Multipedes, is moſt effectuall to cure the ſaid ſquinancie. And ſome there be who adviſe to take one and twentie of theſe worms ſtamped, and to give them in one hemine of mead or honyed water for the ſaid diſeaſe; but they muſt be conceived downe the throat by a pipe or tunnell, for if this medicine touch the teeth once, it will doe no good. It is ſaid moreover, that if one drinke the decoction of mice ſodden with vervaine, it is a ſoveraigne remedie for that diſeaſe: as alſo that a leather thong made of a dogs skin put thrice about the necke, will doe the deed. And ſome there be, who in this caſe uſe pigeons dung mixed wrth oile and wine.

As touching the cricks of the nerves or ſinews that ſerve the nape of the necke; as alſo for the cramps that draw the head backward, they ſay, that a twig or braunch of a vine taken out of a puttocks neſt, and carried about one hanging to the necke or arme, is a ſpeciall remedie for the abovenamed accidents.

* *Multipeda.*

* For the martinets or ſwallows called *Apodes*, build not, but lay and breed in chinks and cranies of old walls.

Chap. V.

Medecines for the Kings evill that is broken and doth run: for the pains lying in the ſhoulders: as alſo for the griefe of the bowels about the midriffe and precordiall parts.

THe bloud of a weazill is good for the wens called the Kings evill, when they be exulcerat and doe run: ſo is the weazill it ſelfe ſodden in wine and applied; provided alwaies, that they run

A not by occasion of any launcing or incision made by the Chirurgians hand. And it is commonly said, that to eat the flesh of a Weazill, is as effectuall for the cure. So are the ashes of a Weazil calcined upon a fire made of Vine-twigs, if they bee incorporat with Hogs grease. *Item*, Take a greene Lizard and bind it to the sore; but after thirtie daies you must doe so with another, & this will heale them. Some make no more ado but in a little box of silver keepe the heart of a Weazill and wear it about them. If women or maids be troubled with the kings evill, it were good to make choise of old shell-snailes, and to stampe them shels and all into a plaster or liniment: but especially such as be found sticking to the roots of shrubs and bushes. The ashes of the serpent Aspis calcined, are likewise very good for this disease, if they be incorporat with Buls tallow and so applied. Some use snakes grease and oile together: also a liniment made with the ashes of snakes
B burnt, tempered either with oile or wax. Moreover, it is thought that the middle part of a snake, after the head and taile both be cut away, is very holsome meat for those who have the kings evill: or to drinke their ashes, beeing in the same manner prepared and burnt in a new earthen pot never occupied, marie if the said snakes chaunced to bee killed betweene two cart-tracts, where the wheeles went, the medicine will worke much more effectually. Some give counsell to applie unto the affected place Crickets digged out of the earth, with the mould and all that commeth up: Also to applie Pigeons dung onely without any thing else, or at the most to temper it with Barley meale or Oatmeale in vinegre. Likewise to make a liniment of a Moldwarpes ashes incorporat with honey. Some there be who take the liver of a Moule, crush and bruise it betweene their hands, working it into a liniment, and lay the same to the sore, and there let it drie upon the place
C and wash it not off in three daies. And they affirme, That the right foot of a Moule is a singular remedie for this disease. Others catch some of them, cut off their heads, stampe them with the mould that they have wrought and cast up above ground, & reduce them into cerrain trochisks, which they keepe in a box or pot of tinne, and use them by way of application to all tumors and impostumes which the Greekes call Apostemata, and especially those that rise in the necke: but then they forbid the patient to eat porke or any swines flesh during the cure. Moreover, there is a kind of earth-beetles called Tauri, *i.* Buls: which name they tooke of the little hornes that they carie; for otherwise (in colour) they resemble tickes; some tearme them Pedunculos terræum, earth-lice: These also worke under the ground like wants, and cast up mould, which serveth in a liniment for the Kings evill, and such like swelling, as also for the gout in the feet, but it must not
D be washed off in three daies space. Howbeit, this is to be noted, that this medicine must be renued every yeare, for the said mould will continue no longer in vertue than one yeare. In sum, there be attributed unto these Beetles, all those medicinable properties which I have assigned unto the crickets called Grylli. Moreover, some there be who use in manner & cases aforesaid, the *mould which Ants doe cast up. Others for the Kings evill take just as many mads or earthworms in number as there bee wens gathered and knotted together, and bind the same fast unto them, letting them to drie upon the place: and they are perswaded that the said wens will drie away & consume together with them. There be againe who get a Viper about the rising of the dog star, cut off the head and taile, as I said before of snakes, and the middle part betweene they burne: the ashes that come thereof, they give afterwards to be drunke for three weekes together, every day as much as
E may be comprehended and taken up at three fingers ends: and thus they cure and heale the kings evill. Moreover, there bee some that hang a Viper by a linnen thread fast tied somewhat under the head, so long untill she be strangled and dead, and with that thread bind the foresaid wens or Kings evill, promising unto their patients assured remedie by this meanes. They use also the Sowes called Multipedæ, and incorporat the same with a fourth part in proportion to them, of true Terpentine: and they be of opinion, That this ointment or salve is sufficient to cure any impostumes whatsoever.

*Of which being raised more & more, come Maure-hils, corruptly calleed Moule-hils: for Ants were in old English called Maures: and Moules never cast up such.

As touching the paines that lie in the shoulders, there is a proper medicine made in forme of a liniment, with the ashes of a Weazill tempered with wax, which easeth the same.

To keepe young boies from having any haire growing on their face, that they may seeme al-
F waies young, it is good to annoint their cheekes and chin with Ants egges. Also the marchants or hucksters that buy young slaves to sell them againe for gaine, use to hinder the grouth of hair as well of the visage, as in the armeholes and upon the share, that they may bee taken for young youths still, by annointing those parts with the bloud that commeth from lambes when they be libbed: which ointment doth good also to the armepits, for to take away the ranke and rammish smell

ſmell thereof: but firſt the haire there growing ought to be pulled up by the roots. G

Now that I am come to ſpeake of the precordiall region of the bodie, know this, That by this one word *Præcordia*, I meane the inwards or entrailes in man or woman, called in Latine **Exta*, whenſoever then there ſhall be paine felt in theſe parts or any of them, applie thereto a yong ſucking whelpe, and keepe it hard huggled to the place, doubtleſſe the ſaid greeſe will paſſe away from the part to the puppie it ſelfe, as men ſay: and this hath beene found true by experience in one of thoſe whelpes*ripped and opened alive, and the ſaid bowels taken foorth: for looke what part in man or woman was greeved, the very ſame was ſeene infected thereupon, in the puppie. And ſuch whelpes thus uſed for the curing and taking upon them our maladies, were wont to be enterred with great reverence and ceremoniall devotion. As touching the pretie little dogs that our daintie dames make ſo much of, *called Melitæi in Latin, if they be ever and anon kept cloſe H unto the ſtomacke, they eaſe the paine thereof. And in very truth a man ſhall perceive ſuch little ones to be ſicke, yea, and many times to die thereupon: whereby it is evident, that our maladies paſſe from us to them.

* The bowels, as heart, liver, lights, &c.

**Proſciſſoque vivo*, not *profuſoque vino*.

*Becauſe they were brought from the Iſle Melita, lying within the Sclavonian ſea

Chap. VI.

Of the diſeaſes incident to the lights and liver. Of thoſe that uſe to caſt and reach up bloud at the mouth.

MIce are very good for the infirmities of the lungs, eſpecially thoſe of Barbarie, if they be I firſt flaied, then ſodden in oile and ſalt, and ſo given to the patient for to eat: Thus prepared and uſed, they cure them that either ſpit purulent and filthie matter, or els reach up ſhere bloud. But a diſh of meat made of ſnailes with ſhels, is moſt excellent for the ſtomack. But for the better ordering and dreſſing of them: firſt they ought to ſiver over the fire and take a few waulmes untill they be parboiled, without touching or medling one jot with their bodie: afterwards they muſt bee broiled upon the coales, without putting any thing in the world unto them, and then to bee ſerved up in wine and fiſh pickle or brine called Garum, and ſo eaten. But the beſt for this purpoſe are thoſe of Barbarie. It is not long agoe, that this experiment was found: but ſince it was once knowne, many have done themſelves much good thereby. But (that which I had well neare forgotten) many obſerve to take them in ſome odde number. Howbeit, as holeſome as they are ſuppoſed to be otherwiſe, this diſcommoditie is found by them, That they cauſe K thoſe to have a ſtrong and ſtinking breath that uſe to eat them. Beeing ſtamped without their ſhels, and ſo drunke in water, they helpe them that reach bloud upward. But that you may know that there be degrees of them in goodneſſe. The beſt ſnailes ſimply are they of Barbarie, & namely, thoſe about the quarter neare Soli: Next to them are much eſteemed ſuch as are gathered in the Iſlands Aſtypelæa, and Sicilia, for they are of a meane bigneſſe; for ſuch as bee growne very great, have their fleſh hard, and be void of humiditie. Then are raunged in a third place, thoſe that come from the Baleare Iſlands, called Cavaticæ, becauſe they breed in caves and holes. There be good alſo brought from the Iſlands Capreæ. Holeſome theſe ſhell-ſnailes may be well ynough: but toothſome ſurely they are not, whether they be old kept or new taken. Thoſe that be found in rivers, and which have white ſhels, carie a ranke and ſtrong ſavour with them: ſo do the wild ſort L that are not kept up and fed in ſtewes and pits, and be hurtfull to the ſtomacke, but good to looſen the bellie: even ſo are all the ſort of the little ones. But contrariwiſe, thoſe that breed in the ſea are better for the ſtomacke than others: and moſt effectuall to allay the paines thereof. Moreover, it is ſaid, that they doe moſt good, of what kind ſoever, if they bee ſwallowed downe alive and all whole with vinegre. Moreover, there be of theſe ſnailes called *Ceratæ, of a broad making, and growing in many and ſundrie formes; of whoſe properties and how they are to be uſed, I will write elſewhere in place convenient. The inner skin of a Hen or Capons geſier, preſerved untill it be drie, and reduced into pouder, and ſo put into a cup of drinke like ſpice; the ſame alſo eaten freſh, and newly roſted or broiled, is ſingular for the catarrhes that fall into the breaſt, and for a moiſt cough. Shell-ſnailes punned raw and given in a ſupping with three cyaths of warme M water, ſerve well to appeaſe & ſtay the cough. Take a peece of a dogs skin, and tie the ſame about any one of your fingers, which you will, it ſtaieth all rheumes and diſtillations. The broth made of Partridges, is ſoveraigne to comfort and refreſh the ſtomacke. As touching the greeſe or pain of the liver, it is ſaid, That the fleſh of a wild Weazill, or her liver eaten, is a ſingular meat therefore,

*Haply ſo named, becauſe they have little or no hornes, *quaſi* ἀνδύτων κεράτων.

A fore: ſo be Ferrets roſted in manner of little pigs. The wormes with many feet called ſowes or cheſelips, are very proper for them that draw their wind ſhort; but there muſt be one and twentie of them, neither more nor leſſe, diſſolved in the beſt Atticke honey, and ſo given in drink and ſwallowed downe by a pipe or tunill: the reaſon why they muſt be thus conveighed through ſuch a cane or tunill is this, becauſe looke what cup or boule they ſo touch, they ſtaine the ſame black. Some take of them to the quantitie of one ſextar, and torrifie them upon a pan or platter, untill they looke white and be calcined, and then incorporat them in honey: [there be Latine writers who call this worme Centipeda, as if it had a hundred feet] and then give direction, that they ſhould be taken in hot water. Furthermore, it is ſaid, That if the patient doe either eat or drink for the ſpace of nine daies together one ſnaile hot, ſtamped ſhell and all in three cyaths of wine cuit
B he ſhall find helpe, if he were given either to faint and ſwoune, or to bee lunaticke and to goe beſide himſelfe, or elſe be ſubject to the dizzineſſe of the head. Others give order to take them after another manner, namely, one the firſt day, the morrow twaine, the third day three, the fourth two, and the fift one againe: and in this wiſe they cure thoſe who are ſhortwinded, or have an impoſtume broken within their bodie. There is a kind of Inſect reſembling a Locuſt, but that it hath no wings, which in Greeke is called *Tryxalis; a Latine name it hath not found yet, as ſome doe thinke: and writers there bee not a few, who are of opinion, That it is the ſame that our Gryllus or criquet. Call it what you will: let there be twentie of them torrefied and drunke in honnied wine, it is reported for to be a ſingular medicine for thoſe that cannot take their breath but ſitting upright, and for ſuch as ſpit bloud. There is one writer who ordaineth to take ſnailes unwaſhed,
C and to poure upon them either the Mere-gout of the grape that runneth out firſt without preſſing, or elſe ſea-water, and ſo to boile them therein, and afterwards to eat them for a cough. And the ſame Authour giveth counſell, to pnn them ſhels and all, and to take them with the foreſaid Mere-gout to the ſame effect.

*or Troxalis, according to Ælianus.

Touching inward impoſtumes broken, the hony wherin a number of Bees have ben drowned to death, hath a peculiar vertue to heale them. The lungs of a Vulture burned to pouder in a fire made of Vine-cuttings, given in wine morning and evening, if the patient be free from the ague: ſo there bee put thereto one moietie of Pomegranat flowers, and the flowers of Quinces and Lillies as much of each, is a very ſoveraigne remedie for thoſe that caſt up bloud out of their bodie: but if he be in a feaver, the ſame medicine would be taken in the decoction of Quinces.

D As for the paine of the ſpleene, if we may beleeve the receits and preſcriptions of the Magicians, the patient ought to have the milt or ſpleene of a ſheepe ſpread and laid over the place: but the partie that hath the application thereof, muſt ſay theſe words withall, *This I doe to cure the ſpleene*: Which done and ſaid, the ſame milt of the ſheepe muſt be laid up cloſe and hidden within the wall or behind the ſeeling of the bed-chamber where the ſicke bodie lieth, and ſealed up with a ſignet, for feare it ſhould be taken away: with this charge, that he or ſhee that hath the beſtowing of it, repeat the foreſaid charme nine times thrice over. If a dogs bellie be ripped alive, and the ſpleene taken forth, whoſoever eateth thereof, ſhall find it very good to eaſe them of the
2 ſaid maladie. But ſome content themſelves with laying it freſh and warme to the region of the ſpleene. Others give the ſpleene of a young whelpe but two daies old, in ſquillitick vinegre, to the
E patient, but they make not the patient acquainted with the medicine what it is; or els they miniſter the ſpleene of an Hedgehog in the ſame manner. Likewiſe they give the aſhes of ſhell-ſnails with Lineſeed and Nettle ſeed, putting thereto ſome honey: and this cure they continue untill the patient be throughly whole. It is ſaid moreover, That a green Lizard taken alive, and hanged ſo in a pot juſt before the dore of the patients bedchamber: with this charge, that ever as he goes in and out he touch the ſame with his hand, will worke the ſame effect. The aſhes of a ſcrich-owls head reduced into an unguent with oile, is good for this purpoſe, ſo is the honey wherein Bees were ſtifled: and laſtly a ſpider, but eſpecially that which they call Lycos.

The heart of the bird called a *Houpe, is highly commended for the paine of the ſides. Alſo *Vpupa.
F the aſhes of ſhell-ſnailes boiled in Ptiſane or husked Barley water: and ſome in this caſe applie the ſame otherwhiles in a liniment only without any thing elſe. The aſhes of a dogs head (I mean the bare skalpe or skull only) dying enraged and mad, is good to ſpice a cup of drinke withall for
3 this diſeaſe.

If the loines be pained, it is ſaid, That the ſtarre-Lizards called Stelliones, comming from beyond ſea ſodden in wine together with the ſeed of blacke Poppie to the weight of halfe a denier,

is

is very good, ſo the decoction be drunke: howbeit, this care muſt be had, that the head be cut off G
firſt, and the garbage taken forth. The green Lizards are good meat in this caſe, if they be dreſſed accordingly, and their feet and head cut away: ſo are ſhell-ſnailes, braied ſhels and all together, and ſodden in wine with fifteene graines of pepper. Some uſe the feet and legs of an Ægle in this diſeaſe, pulling them away backward from the knees: and the right foot they applie faſt unto the paine of the right ſide: but the other, if the contrary ſide bee greeved. The many-foot Sowes or Cheeſlips, which I called before Oniſcos, helpe the ſame paines, if they be taken to the weight of halfe a denarius in two cyaths of wine.

To conclude with the Sciatica, the Magicians give order to put an earthworme in a treene or wooden diſh, which having been cleft, was ſtitched up again with yron wier, or bound with a plate or hoope of yron: then to lade up ſome water therwith, & in it to waſh and rince the ſaid worme H
very well, and then to enterre or burie the ſame again in the very place from whence it was digged forth: which done, to give the ſaid water anon to the patient for to drinke out of the ſaid wooden diſh: and this they hold to be a wonderfull medicine.

Chap. VII.

Remedies for the dyſenterie or bloudie flix. And generally for all diſeaſes of the bellie.

THe decoction of a leg of Mutton ſodden in water with Line ſeed, is ſingular good for to be I
ſupped off to ſtay a bloudie flix. So is old Cheeſe made of Ewes milke: and ſheeps ſuet ſodden together in ſome auſtere wine. The ſame is ſingular for the Sciatica paſſio, and an old cough. The ſtarre-Lizard Stellio, which breedeth beyond ſea, being flaied, garbaged, and dreſſed for meat, ſo that the head and feet be taken away, and ſo ſodden and eaten, is commended alſo in this caſe. Moreover, it is ſaid, That two ſnailes and one Hens egg, ſtamped the one as well as the other with their ſhels, and afterwards gently ſodden in a new earthen pot with ſome ſalt and two cyaths of wine cuit, or els with the juice of Dates & 3 cyaths of water given to the patient to drink who is tormented with the dyſenterie or bloudie flix wil bring great alleviation of the ſaid diſeaſe. It is thought alſo, That the aſhes of the ſaid ſhell-ſnailes calcined, if they bee taken in wine with a little roſin, are ſoveraigne therefore. As touching naked ſnailes without any ſhels, they be found plentifully in Affricke. Paſſing good they be for the bloudie flix, if five of them be burnt and cal- K
cined together, with halfe a denier weight of Acacia, and two ſpoonefuls of their aſhes taken in Myrtle wine or ſome other auſtere and aſtringent wine, and a like quantitie of hot water. Some
*Or Affricke. there be who in this ſort uſe all the ſnailes of *Barbarie. Others thinke it better to take five of the ſaid ſnailes of Affricke, or rather as many of the broad and flat ſort, and to clyſterize them for the dyſenterie. But if the flux be exceeding vehement, then they put thereto of Acacia the quantitie of a Beane. It is ſaid moreover, That the ſpoile or ſlough of a ſerpent boiled with oile
*Vlcer of the guts or bloudie flix, roſat in a veſſell of tinne, is ſingular for the *Dyſenterie and *Tineſme, to bee injected by a clyſter: Or if it be ſodden in any other veſſell, yet with an inſtrument or pipe of tinne it is to be con-
*A continuall deſire to the ſtoole, without doing ought. veighed into the fundament, that the tiwill thereby may bee annointed. The broth of a Cocke
*Dolores cœliacorum. Some read Colicorum, i. of the Colicke. cureth theſe infirmities: but if it bee of an old Cocke, it is the more effectuall. And yet if the L
ſaid broth be any thing ſaltiſh, it ſtirreth the bellie and provoketh to the ſeege. The inward skin of an Hens giſier broiled and given with ſalt and oile, doth mittigat and appeaſe the * wrings cauſed by the flux of the ſtomacke. But then this regard muſt bee had before, That neither the Hen have any corne given her, nor the patient feed upon any graine ſome time before. Pigeons dung being burnt, and the aſhes taken in drinke, is of great effect and vertue in theſe caſes. The fleſh of a Quoiſt or Stock-dove ſodden in vinegre, is good both for the bloudie flix, and alſo for the looſeneſſe, proceeding from the imbecillitie of the ſtomacke. The Thruſh or Mavis roſted with Myrtle berries, is ſoveraigne for the dyſenterie: ſo is the Merle or Blacke-bird. In which reſpect, great account alſo is made of the honey boiled, wherein Bees were killed. [Of
*Which is the torture or inflammation of the upper fmal guts. all the paines that be, the *Iliacke paſſion is moſt ſharpe and greevous to be endured. But it M
is ſaid, That the bloud of a Bat, torne and plucked in peeces alive, is verie good againſt it; yea, and if the bellie be annointed therewith, it eaſeth the torment thereof.] But to come againe unto the flux of the bellie, ſhell-ſnalles prepared and made in manner aforeſaid for thoſe that be ſhort-winded, are ſingular good for to ſtop the ſame, and to knit the bodie. So are their

aſhes

A aſhes(if they were burnt and calcined alive)taken in ſome auſtere or aſtringent wine. The liver of a Cocke roſted, together with the skin of the giſier, which ordinarily the cooke caſteth away, dried and kept, and ſo taken with a little of the juice of Poppie mixed with it,is of great power to remedie theſe accidents. Others take the ſame skin whiles it is new and freſh,which they broile and torrifie, for to bee given in wine to drinke. A Partridge broth, yea,and the giſier of the bird alone beaten to pouder and taken in ſome groſſe and aſtringent wine,is ſingular to ſtay a flux of the bellie. The wild Ringdove or Quoiſt,boiled in vinegre and water,is of the ſame effect. The milt of a ſheepe firſt torrified,then pulverized and taken in wine,helpeth much this infirmitie. A liniment likewiſe made of Pigeons dung and honey, is of great vertue,if the patients bellie bee annointed therewith.

B Touching thoſe that have feeble ſtomackes, and cannot concoct and digeſt their meat. It is ſaid, That the maw or giſier of that kind of Geire or Vulture, which is called in Latine Oſſifragus,dried,pulverized and drunke,is right ſoveraign. Nay if the patient doe but hold the ſame giſier in his hand whiles hee is at his repaſt,it will helpe digeſtion. And in truth there be divers that for this cauſe weare theſe giſiers ordinarily about their neckes: but I thinke it not holeſome to do ſo,long,for it maketh them leane as many as uſe it,and ſpendeth their bodie.

To ſtay a flux of the bellie, the bloud of Mallards or Drakes is thought alſo to bee ſingular good. The meat made of ſhell-ſnailes,diſcuſſeth and ſcattereth ventoſities. The milt of a Mutton broiled to aſhes and given in wine,is ſingular good to allay the wrings and torments of the bellie. Of the ſame operation is the wild Quoiſt or Ringdove,ſodden in vinegre and water. The
C greater kind of Swallowes or Martins called Apodes,are no leſſe powerfull,if they be ſodden and taken in wine. The aſhes of the bird Ibis plucked and burnt without his feathers,and ſo given to drinke,worke the ſame effect. But ſtraunge it is and wonderfull,if that be true which is reported as touching this maladie,namely,that if a Ducke be applied alive unto the bellie which is tormented with ſuch wrings,ſhe ſhall draw away the diſeaſe into her own bodie,and die of the torment, but the patient ſhall be eaſed by that meanes. Theſe painefull gripes likewiſe are cured with ſodden honey,wherein Bees ſometimes were drowned to death.

As for the Collicke,there is nothing ſo good to aſſuage the paine thereof,as to eat Larkes, which the Latines name Galeritæ. Howbeit, ſome give adviſe and thinke it better to burne and calcine them in their feathers within a new earthen veſſell,& ſo to ſtampe them to aſhes or pou-
D der,and to drinke therof foure daies together in water by three ſpoonfuls at a time. Others make no more adoe,but take the heart of a Larke,and bind it to the inward part of the thigh: and ther bee againe who would have the ſame to bee ſwallowed downe whole newly taken out of the bird while it is warme. There is a familie of the Aſprenates,men of good qualitie and reputation, for that they had been ſometimes Conſuls of Rome: in which houſe,of two brethren, the one was fully cured of the collicke by eating theſe birds, and by wearing ordinarily the heart of one of them about his arme,encloſed within a bracelet of gold: the other being likewiſe troubled with the ſaid diſeaſe, found remedie by a kind of ſacrifice which hee offered in a little chappell made with unbaked brickes,piled up archwiſe in manner of a furnace: and ſo ſoone as the ſacrifice was finiſhed,he ſtopped up the ſame againe. That Vulture which is called Offifragus,hath one gut of
E a wonderfull nature,for it is able to concoct and digeſt whatſoever the ſaid foule devoureth. And for certaine this is knowne and generally received,that the nethermoſt end therof cureth the collicke,if the patient do but carie it about him. There are other ſecret and hidden diſeaſes incident to the guts,whereof there be wonders told: and namely,that in theſe caſes,if young whelpes before they can ſee be applied for three daies together unto the ſtomacke eſpecially,and the breaſt: ſo that they ſucke milke from out of the patients mouth the while: the ſaid diſeaſe ſhall paſſe into the bodie of the poore whelpes,whereof in the end they ſhall die. Let the ſame be ripped & opened,then will it appeare evidently what the cauſe was of the foreſaid ſecret maladie of the patient: But ſuch whelps ought when they are dead to be enterred and buried. As for the Magicians,they avouch, That if the bellie bee annointed lightly with the bloud of a Bat, the partie thus dreſſed,
F ſhall not need to feare any paine of that part for one whole yeare after: or if it chaunce that one be pained in the bellie,let him(ſay they)endure to drinke the water that runneth downe from his feet when his legs be waſhed,and he ſhall find helpe anone.

CHAP.

G

Chap. viii.

Medicines against the ſtone and gravell: the paines of the bladder. The ſwellings in the cods and the ſhare. Alſo for the biles or botches called Pani.

FOr them that are troubled with the ſtone, it is good to annoint the region of the bellie with Mouſe dung. It is ſaid, that the fleſh of an Vrchin or Hedgehog is very good meat and pleaſant in taſt, if ſo be he were killed outright in the head at one blow, before that hee had time to ſhed his owne urine upon himſelfe: and looke whoſoever eat this fleſh, ſhall never be ſubject to the diſeaſe of the ſtrangurie. The fleſh of an Vrchin killed in this ſort, helpeth the bladder, in H
caſe the urine paſſe by dropmeale from it. But contrariwiſe, if the Vrchin chaunce to wet and drench himſelfe with his owne urine, as many as eat of the fleſh ſhall fall into the infirmity of the ſtrangurie or piſſing dropmeale. Moreover it is ſaid, That earthwormes drunke either in wine or cuit, is of great efficacie to breake or diſſolve the ſtone: as alſo that ſnailes, prepared in that ſort as they are ordained to be dreſſed for ſhortneſſe of wind, worke the like effect. Take ſnailes naked out of their ſhels, and ſtampe them; give three of them unto the patient to be drunke in a cyath of wine the firſt day, two the morrow after, and the third day one againe, you ſhall ſee how it will helpe the ſtrangurie or piſſing dropmeale. But let the emptie ſhels be burnt, the aſhes thereof will ſcoure away and expell the ſtone. Semblably, it is ſaid, that the ſame effect followeth upon
drinking the liver of a water-ſnake: the eating of the aſhes of ſcorpions calcined, either in bread, I
or with locuſts. Likewiſe, to take the little ſtones or grit that be found in the craw of a Cocke, or in the giſier or maw of a Stocke-dove: to beat the ſame to pouder, and therewith to ſpice the drinke, is ſingular good for the infirmitie aforeſaid. To doe the like with the skin of a Cockes or Hens giſier, dried: or if it be new and freſh, to roſt and eat it. Alſo for the ſtone and other difficulties or impediments of the bladder, it is good to take the dung of Quoiſts or Stocke-doves, with Beane meale. In like manner there is much helpe found by the aſhes of Quoiſts feathers, ſuch as be of a wilder kind than the reſt, taken with Oxymell. Moreover, the aſhes of the guts of this bird given to the quantitie of three ſpoonefuls: as alſo the neaſt of Swallowes: and Cricquets infuſed and diſſolved in hot water, are commended for this purpoſe. Some helpe themſelves with the giſier of Oſſifragus dried: others uſe the decoction of Turtles dung boiled in honied wine; or elſe K
the broth of the Turtle it ſelfe. Furthermore, for the difficultie of urine, it is holſome to eat blacke birds, or Merles, boiled with Myrtle berries: or Graſhopers fried in a pan: and to drinke the Sows or Cheeſlips called Oniſcoi, folke make it not ſtraunge to doe themſelves good. But if there bee paine in the bladder, it is ſaid, That the broth made of Lambes feet, is ſoveraigne. If the bodie be bound or coſtive, a Cocke broth cauſeth it to be ſoluble: and the ſame dooth withall lenifie the acrimonie of humors that cauſe the foreſaid greeſe of the bladder. The dung of Swallows likewiſe procureth looſeneſſe of bellie, in caſe it bee tempered with honey to the forme of a ſuppoſitarie, and ſo put up.

Touching the infirmities incident to the ſeat, the tried greaſe of unwaſhed wooll, (whereunto ſome adde Tutie and oile of Roſes) the aſhes alſo of a dogs head are ſoveraign medicines. The L
ſlough likewiſe which a ſerpent hath caſt, applied with vinegre, is good, in caſe there bee chaps and fiſſures in that part. Likewiſe, the aſhes of dogs dung, which looketh white, incorporat with oile of Roſes: and this receit (they ſay) was the invention of *Æſculapius*, and is beſides moſt effectuall to take away werts. The aſhes of Mice dung, Swans greaſe, & the tallow of Ox or Cow, are helpefull for this infirmitie. If the tuill or gut Longaon bee relaxed and hang forth, it is good to annoint the ſame with the moiſture iſſuing forth of ſhell-ſnails that is pricked through with a pin
*Repellit. or needle, for it *driveth it backe againe to the right place. If the ſeat be galled, it is thought that the aſhes of the wood-Mouſe tempered with honey, cureth the ſame: or els the aſhes of an Vrchin, together with the braines of a Bat, Allum, and the greaſe tried out of unwaſhed wooll, will skin it againe. In like manner, Pigeons dung with honey. For the ſwelling blind hæmorrhoids or M
piles called Condylomata, there is a proper remedie, namely, to rub the place with a ſpiders bodie, after the head and legs be caſt away. Againſt the acrimonie and ſharpeneſſe of humors, that they ſhould not fret and burne thoſe parts, there is a faire liniment made with Gooſe greaſe, incorporat with Barbarie wax, white lead, and oile roſat. So is the fat of a Swan. Theſe medicines

alſo

A alſo are ſaid to heale the hæmorrhoids that run.

For the paine of the Sciatica, it is thought that raw ſhell-ſnailes bruiſed are good, if they be taken in Amminean wine and pepper: alſo a greene lizard eaten as meat, without the feet, garbage, and head: ſo is the ſtar-lizard Stellio, but thereto ought to be put the weight of three oboli of blacke poppie ſeed.

For ruptures, inward ſpaſmes and convulſions, it availeth much to take ſheeps gall with breaſt-milke. In caſe the privities have an itch and a fretting humour upon them, or if ſome offenſive werts ariſe in thoſe parts, the dripping or gravie that commeth from a rams lights roſted, doth much good, if the place be therewith annointed. As touching other accidents which happen to thoſe parts, the wooll of a ram calcined and reduced into aſhes, even with all the filthineſſe that
B is therein, is thought to be verie good, ſo that the aſhes be applied unto the affected place with water. The ſewet of the kell of a mutton, but eſpecially that which groweth to the kidnies, incorporat with the powder of a pumiſh ſtone and ſalt, is much commended in this caſe: alſo greaſie and unwaſhed wooll ſoked in cold water, is good to be applied unto the place: the fleſh moreover of a mutton calcined, ſo as the aſhes be incorporat with water. *Item*, the aſhes of a mules houſe: and the powder of caples teeth braied and pulverized, if the grieved place be ſtrewed therewith.

To come lower to the infirmities of the cods: the powder of the bones of a dogs head without any fleſh upon it, pulverized, is ſingular therefore. If it fall out that one of the genetoirs be relaxed and hang down lower than his fellow, it is good to annoint the ſame with the waterish ſlime and ſome that commeth from ſhell-ſnails; for they ſay it is an excellent remedie. If there be any
C foule and maligne ulcers in thoſe parts running with filthie matter, the aſhes of a dogs head freſh killed are ſingular to heale the ſame: ſo are the little broad and flat ſhell-ſnails bruiſed and incorporat with vinegre, if either the ſame or the aſhes be applied thereto: alſo the honey wherein bees have been killed mixed with roſin: the naked ſnails likewiſe which breed (as I ſaid) in Barbarie, in caſe they be ſtamped and incorporat with the powder of frankincenſe and the white of an egg; with this charge, that the ſaid cataplaſme be not taken off in thirtie daies, by which time it will be ready to fall away of it ſelfe. Some in ſtead of frankincenſe, put the bulbous roots of ſmall onions or ſcallions. For thoſe who be troubled with the *waterish rupture, it is thought that the * *Hydrocelicis.*
ſtar-lizards Stelliones be woonderfull good, in caſe their head, feet, and guts, be taken forth, and and the reſt of the bodie roſted: but the patient had need to eat of this meat often, and ſo it helpeth thoſe who cannot hold their water. The like opinion there is of dogs greaſe incorporat with
D *Alume de plume, if the patient take thereof to the quantitie of a bean: as alſo the ſnails of Barbarie burnt, fleſh, ſhell and all, ſo as the patient drinke their aſhes. Furthermore, it is ſaid, that * *Alumine ſchiſto.*
the tongues of three geeſe roſted and eaten, is a ſpeciall remedie for this infirmitie: and *Anaxilaus* is he that deviſed this receit.

Touching the biles called Pani, ſheeps tallow incorporat with ſalt torrefacted, is ſingular good to breake them: but mice dung, with the fine powder of frankincenſe and orpiment or red arſenicke, is as proper to reſolve them: likewiſe the aſhes of a lizard, and the lizard it ſelfe ſplit alive and applied hot thereto. In like manner cheeſlips or ſows ſtamped and incorporat with the right terpentine, to the quantitie of a third part, and ſo brought into a cataplaſme. Some there be
E who unto ſhell-ſnailes punned, add the common bole-armoniacke. Alſo the aſhes of the void ſhels only alone without the ſnails mixed with wax, are of a reſolutive and diſcutient facultie. In like manner, a liniment made either of pigeons dung onely, or els incorporat with barley meale or otemeale. The flies called Cantharides mixed with quicklime, are a good potentiall caurerie, and open ſuch biles as well as the Chirurgians launcet. The botches or ſwellings in the ſhare, a liniment made with the ſmall ſhell-ſnails and honey, doth aſſuage and mitigat. Finally, to keepe downe the veins from ſwelling which be called Varices, it is good to annoint the legs of children with the bloud of a lizard, but this muſt bee done, whiles both the children and the partie who hath the doing thereof, be faſting.

F

Chap. IX.

Receits for the gouts of feet and hands: and generally for the pains or diſeaſes of joynts whatſoever.

THe tried greace of unwaſhed wooll incorporat with womans milke and white lead, is a very proper liniment to mitigat the paine of the gout: ſo is the liquid dung of ſheep when they

run out behind. Their lights likewiſe, or a Rams gall incorporat with their ſuet. Some ſplit Mice, G
and lay them hot to the place. Alſo the bloud of a weazill reduced into a liniment with Plantain:
and the aſhes of a weazill burnt alive, tempered with vinegre and roſewater, and brought into a
thin liniment, ſo that the place affected may be dreſſed with a feather. Others temper wax & oile
of roſes together. And there be again who uſe dogs gall for this purpoſe, but in any wiſe the hand
muſt not touch it, but the place ought to be annointed with a feather: likewiſe hens dung, and the
aſhes of earthwormes mixed with hony, with this charge, that this cataplaſme be not undone or
removed before the third day. Howbeit it is thought better by ſome, to apply the ſame aſhes with
water: but by others to uſe vinegre in meaſure and with moderation, together with three cyaths of
honey, having beforehand annointed with oile roſat the goutie feet. It is ſaid moreover, That to
drinke broad ſnailes, is a ſingular medicine to take away the gout of the feet or the paine of any H
other joint: the manner whereof is to ſtampe two at a time, and drinke them in wine: Some applie
the ſame in a liniment with the juice of the hearb Parietarie: Others content themſelves to bruiſe
them and ſo to incorporat them into a cataplaſme with vinegre. Many are of opinion, That the
gout may bee cured, if the patient uſe oftentimes to take the ſalt, which together with a Viper
was calcined in a new earthen pot: as alſo that it is very good to annoint the feet with Vipers
greaſe. And they affirme conſtantly of a Kite that hath been kept long dried, if the patient reduce
it into powder, and drinke thereof in water as much as three fingers will well take up, it cureth
the gout throughly. But if the feet be full of bloud and ſwollen withall, they uſe Nettles thereto.
Some there be that take the young feathers of a Kite ſo ſoone as they put foorth, and ſtampe the
ſame with Nettles to a liniment. The very dung likewiſe that theſe foules doe meut, ſerveth in I
ſtead of a good liniment to annoint the painefull gout in any joint whatſoever: ſo doe the aſhes
of a weazill or of ſhell-ſnailes burnt or calcined and incorporat either with Amydum or gum
Tragacanth.

If a man have gotten a rap or ruſh upon any joint, there is not a better thing for to cure it than
copwebs: ſome chuſe for this intention, thoſe which be woven by the ſpiders of aſh colour: like as
to uſe the aſhes of Pigeons dung with parched Barly groats and white wine. In any diſlocation of
joints, the moſt preſent remedie that is known, is ſheeps ſuet tempered with the aſhes of womens
haire burnt. This ſuet likewiſe ſerveth well to bee applied with allum to the kibes of the heeles: ſo
*Pura ulcera. doe the aſhes of a dogs head, or of mice dung. But in caſe there be any *ulcer there not yet putri-
fied adde wax thereto, and it will skin up and heale the ſame: and the like effect is wrought by the K
light aſhes of criquets burnt and tempered with oile, or els with the aſhes of the wild wood-mice
mixed with honey: of earth-wormes alſo incorporat with old oile: and laſtly, many applie therto
the ſnailes that be found naked and without their ſhels. And verely, the aſhes of ſuch ſnails burnt
alive, heale all ſores of the feet: howbeit, if the feet be galled and but lightly excoriated, there is
not a better thing for them than the aſhes of hens dung, or pigeons dung incorporat with oile. If
the ſhoe hath rubbed off the skin, or fretted any part of the foot, the aſhes of an old ſhoe-ſole are
ſingular good to heale the ſame: ſo are the lights of a lambe or ram. The pouder of a caples teeth
is a ſoveraigne and ſpeciall remedie for the feet, if there ouſe out any matter from under the nails.
The bloud of a greene lizard healeth the gals under the foot, yea, and cureth throughly the ſore
feet both of man and beaſt, if they be dreſſed therewith. L

As for the cornes and agnels which ariſe about the feet, it is good to beſmeare them with the
*Muli mulæve: Some take *mulus* to be the mule ingendred by a male aſſe & a mare: but *mula*, to be that mule that commeth of an horſe and female aſſe. urine of * mule or mulet, together with the mire in the very place where they ſtaled: alſo with
ſheepes dung. The liver or bloud of a greene lizard applied upon ſome flocke to the place, or up-
on a locke of wooll. Some uſe in that order, earth-wormes ſtamped with oile, or the head of the
ſtar-lizard Stellio, incorporat in oile with a like quantitie of Agnus Caſtus. Laſt of all, others take
Pigeons dung ſodden in vinegre, and lay the ſame to the place.

Touching werts, of what ſort ſoever they bee, there is not a more proper thing to make
them fall off, than to bath them well with the urine, durt and all, of a dog where he lately piſſed:
or to applie thereto a ſalve of dogs dung aſhes and wax: it is not amiſſe alſo to lay to them ſheeps
dung, or to rub them well with Mice-bloud new killed: or to applie a Mouſe ſplit along the mids M
alive: the gall likewiſe of an Vrchin: the head of a lizard, or the bloud: or laſtly, the aſhes of a lizard
calcined: the old ſlough of a ſnake alſo. Laſtly, hens dung incorporat with oile and ſalnitre. If all
theſe medicines faile, begin the cure new again with Cantharides incorporat with wild grapes cal-
led Vvæ taminæ: This is a corroſive, and will eat them out: but when they be thus fretted and ex-

ulcerat,

A ulcerat, the cure muſt be followed with thoſe appropriat means which I have ſet downe before in the healing of ulcers.

Chap. X.

Medicines appropriat for divers and ſundrie diſeaſes which poſſeſſe the whole bodie.

RE turne wee now to the cure of thoſe maladies which are incident not to this or that member, but to the whole bodie. Firſt and foremoſt, the magicians ſay, that the gall of a blacke dogg (a dog I ſay and not a bitch) is a ſingular countrecharme and preſervative againſt all
B ſorceries, enchantments, and poiſons, which may endaunger a whole houſe, in caſe there be a perfume made therewith to purifie the aire therof; yea and to hallow and bleſſe it againſt all ſuch daungers. The like effect (ſay they) wee are to looke for, if the walls of the ſaid houſe be ſprinkled or ſtriked with the bloud of the ſaid blacke dog; with this charge, To burne under the threſhold or dore-ſell at the entrie of the ſaid houſe the genitall member of the ſame dog. Men may marveile well enough at theſe fooleries and abſurdities of theirs: but ſurely wonder leſſe will they thereat, who know what ſtore they ſet by illfavoured ticks, the fouleſt and naſtieſt creatures that be: and why doe they thus magnifie ſo filthie a vermin? becauſe (forſooth) this creature onely of all others hath no paſſage at all for the voidance of excrements, ſucke it never ſo much: and no
C way there is but death with them when they are thus full, but ſo long only as they continue hungrie and faſting: and yet they ſay, that they will endure ſo a long time, even a whole ſeven-night togither with abſtinence and ſparie feeding: mary let them feed ſtill to the full, they will not hold out ſo long, but burſt againe in fewer daies ſpace. Well, this ticke, ſo filthie as it is, and of ſo admirable and ſtraunge a nature in their conceit, they hold to be of exceeding vertue to appeaſe all paines and torments of the bodie whatſoever, in caſe a man take one of them, with the left eare of a dogg, and carrie them hanging to ſome part about him. And more than that; theſe magicians take marks by it, and preſage of the life or death of their patients; for they hold it for a certaine and aſſured ſigne of life, if one having a ticke about him, ſtand at the beds feet where the ſicke man lyeth, and when hee asketh him how hee doth, and where hee is amiſſe &c. if the patient make anſwere readily unto him; but in caſe hee make no anſwer at all, then ſurely hee
D ſhall die, there is no remedie. But take this withall: this ticke muſt be plucked likewiſe from the left eare of a dog, and the ſame dogg ought to bee cole-blacke without any ſpecke of other colour. And *Nigidius* hath left in writing, that doggs will not all day long come neare unto a man nor abide to ſee him, who hath plucked a ticke from an hogg. But to returne unto our magicians: they affirme, that ſuch as be lunatick and beſide themſelves, ſhall come againe to their right wits and ſences, in caſe they be ſprinckled with the bloud of a moule. They avouch moreover and ſay, that if one ſeeth the tongue, eyes, gall, and guts of a dragon in wine and oile, and permit this decoction to coole all night abroad in the open aire, it is a ſoveraigne medicine to chaſe away ſuch bugs, ſpirits, and goblins, wherewith folke be haunted and affrighted in the night ſeaſon, if they bee annointed therewith all over their bodie, morning and evening. *Nicander* wri-
E teth, that whoſoever carrie about them the ſerpent Amphisbæna dead, or no more but the verie skin thereof hanging faſt to any part of their bodies, they ſhall find it to be a moſt ſoveraigne remedie for any through-cold or chilling fitt that hath ſurpriſed them. Nay he ſtaieth not there, but addeth moreover and ſaith, that if the ſaid ſerpent bee bound unto any part of a tree that is to be felled and laid along, the workemen that hew at the bat thereof, ſhall feele no cold all the while; and the tree by that meanes ſhall the ſooner and more eaſily bee cut downe and overthrowne. No marvaile therefore, if this ſerpent aforeſaid dare leave his neſt, and commit himſelfe to the cold weather; for hee ventureth firſt to come abroad, and is to be ſeen above ground before the cuckow begins to ſing. But ſince I have made mention of the cuckow, there comes into my mind a ſtraunge and miraculous matter that the ſaid magicians report of this bird;
F namely, that if a man the firſt time that he heareth her to ſing, preſently ſtay his right foot in the very place where it was when he heard her, and withall marke out the print and juſt proportion of the ſaid foot upon the ground as it ſtood, and then digg up the earth under it within the ſaid compaſſe, looke what chamber or roume of the houſe is ſtrewed with the ſaid mould, there will no fleas breed there.

They ſay moreover, that the fat which is fleeted or skimmed from the broth wherein dormice G
and rats be ſodden, is excellent good for thoſe that be afraid of the palſie, and ſubject thereto:
alſo that Sowes or Cheeſlips called Millipedæ, prepared and taken in drinke, in manner as I ap-
pointed for the ſquinancie, are ſingular for thoſe that find themſelves to be falne into a phthyſick
or conſumption of the lungs: ſo is a green lizard (by their ſaying) ſodden in three ſextars of wine,
untill there be but one remaining, if the patient take thereof a ſpoonfull at a time everie day, un-
till he feele himſelfe wariſhed and fully cured. Others aſſure us of as great effect, by drinking the
aſhes of ſhell-ſnails in wine.

As for the falling ſickneſſe, the tried greace of ſweatie and unwaſhed wooll tempered with a
little myrrhe, ſo that the quantitie of them both ariſe to the bigneſſe of an hazell nut, cureth the
ſame, if it be taken infuſed and diſſolved in two cyaths of wine, preſently after the patient have H
ſwet and be come out of the baine. For the ſame diſeaſe, they ordaine the cullions or ſtones of a
ram which have been kept long and dried, to be reduced into powder to the weight of halfe a de-
nier Romane, and ſo to be taken in water, or els in one hemine of aſſes milke; howbeit with this
charge, That the patient forbeare drinking of wine five daies after, and as many before. Further-
more, they doe highly commend the drinking of ſheeps bloud: likewiſe their gall in milke, but
principally if it be the gall of a lambe: a ſucking whelpe is verie good in this caſe, if it bee taken
with wine and myrrhe; but firſt the head and feet muſt be cut away. Some for this purpoſe drinke
the ſurots or rough werts growing to the leggs of a mule, in three cyaths of oxymell: others give
order to drinke in vinegre the aſhes of the ſtar-lizard Stellion, which breedeth beyond-ſea: and
the tender skin or ſlough of the ſaid lizard (which ſhe caſteth in the ſame maner as a ſnake doth) I
taken in drinke, helpeth much. Some phyſicians are ſo venterous and bold, that they have given
unto thoſe who be ſubject to the falling ſickneſſe, the verie Stellion it ſelfe, after it is rid and clen-
ſed from the garbage or guts, and ſo kept dried; appointing their patients to drinke the powder
therof in ſome convenient liquor, through a pipe of a cane: others appoint it to be roſted upon
a wooden broch or ſpit, and ſo to bee eaten for meat. And ſeeing I have occaſion thus to write
of this Stellio, and the skin thereof, it were very convenient and neceſſarie in this place to ſhew
the manner how the ſaid ſlough (which is growne over him in winter) may be gotten from him
when he hath turned himſelfe out of it, conſidering that he uſeth commonly to devoure and eat
it himſelfe, becauſe it ſhould not doe any man good; for there is not a beaſt again more ſpight-
full to mankind, and envious of our commoditie: inſomuch as this word * Stellio is growne to K
be a reprochfull tearme among us. Well, to meet with this skin of his (as craftie as hee is to be-
guile men of it) they uſe to obſerve in hot ſummer daies, his neſtling hole into which he is wont
to retire himſelfe; and ordinarily they find it to be in ſome hollow crannies about doores & win-
dows, or elſe under vaults and ſepulchres: when they have eſpied where it is, they wait for the
prime of the Spring, they ſet juſt againſt his hole certaine little cages or leaps made of cloven
and ſlived reeds, and the ſame wrought and woven good and thicke: and in very truth, he delight-
teth to get betweene the ſtreights and narrow paſſages of the ſtaves and windings, whereof the
ſaid cages are made, for by means thereof he may the better ſlip himſelfe out of that coat which
cloggeth his bodie and maketh him unweldie: and thus in getting through the ſaid lattices, he
leaveth the ſame behind him: but after he hath thus done, hard beſted he is, for backe he cannot L
the ſame way againe for to eat the ſaid ſlough. Certes, there is not a medicine preferred before
it, for the falling ſickneſſe: and yet good reckoning there is made of the brains of weazils which
have been kept and dried; yea and of the liver ſo prepared, if they be reduced into powder and
ſo taken in drinke: yea their very genetoirs, and bagg or matrice wherein they beare and breed
their young; or their maw likewiſe ſaved, dried, and condite with coriander ſeed, are ſingular
good for this maladie, as I have heretofore noted: and ſo are their aſhes. Some are of opinion,
that it is good eating of them whole as they be, eſpecially the wild kind, without any ſuch prepa-
ring and dreſſing: but others eſteeme ferrets to be as effectuall as they, for the falling evill. More-
over, it is ſaid, that the greene lizard eaten with ſome ſharpe ſauce that quickneth appetit, is ſin-
gular good in this caſe, but the heads and feet muſt be firſt taken away. Moreover, the aſhes of M
ſhell-ſnails togither with line-ſeed and nettle-ſeed, brought into the forme of a liniment with ho-
ney, cure thoſe throughly of this diſeaſe who are all over annointed therewith. But I like better
yet, that for this maladie one ſhould carrie about him the taile of a dragon bound within a bucke
or does skin to ſome part of his bodie, with the ſinews of a ſtag or hind: or els to tie unto the left

arme

* *Stellionatus crimé*, as much as couſenage, or conycatching.

A arme the little ſtones that bee taken out of the craw or giſier of young ſwallows: for it is ſaid, that ſo ſoon as the old ſwallow hath hatched her birds, ſhe giveth them ſuch little ſtones to ſwallow downe: but in caſe this doſe be taken in the verie beginning, and that the firſt time that one is falne of this diſeaſe, there be given unto him for to eat, the young ſwallow that the dam hatched firſt, he ſhall be delivered from it clearely and never have more fits. But at any time after, ſwallows bloud and frankincenſe, or elſe the heart of a ſwallow freſh killed, cureth them that bee ſurprized with this maladie, if they ſwallow the ſame downe. Moreover, it is ſaid, that the little ſtone found in a ſwallows neſt, if it bee but applied unto man or woman that is falne of this ſickneſſe, it will raiſe them out of the fitt, and bring them againe to themſelves immediatly; but if they carrie it tied to any part about them, they ſhall never have fitt againe. Much talke there is
B alſo of a kites liver, that it ſhould be of ſingular operation to this effect, if it be eaten: as alſo of a ſerpents old skin which ſhe hath caſt off, that it will doe no leſſe. The heart of a vultur ſtamped togither with the owne bloud, and given in drinke three weeks togither, worketh wonders in this diſeaſe. So doth the heart of the young bird of a vultur, if the patient weare it about his arme, or hang it at his necke: but then they give counſell, to eat the fleſh of the vultur it ſelfe, and eſpecially when he hath eaten his full of mans fleſh. Some of them ordaine the breaſt of a vultur to be drunke, but it muſt be out of a cup or maſer made of the wood of Certus: & others there be who to this purpoſe cauſe the ſtones of a cocke to be kept and dried, and the ſame to be given unto the patient in water and milke, after hee hath abſtained five daies from drinking wine. To conclude, there have been of them, that preſcribed unto their patients in this caſe, one and twentie of theſe
C ſandie or reddiſh flies (but they muſt be dead ones) for to be taken in drinke: howbeit, if they were but of a feeble complexion, they gave fewer of them.

Chap. XI.

Againſt the Iaundiſe and Phrenſie. Againſt Fevers and the Dropſie.

THe excrement engendred in the eares, called commonly Earewax, mightily withſtandeth the jaundiſe: ſo doth that ordure alſo which gathereth about the udders and teats of ſheep and goats, if the patient drinke thereof to the weight of one denier in two cyaths of wine, with ſome myrrhe though it be never ſo little. The aſhes of a dogs head calcined, taken in honied
D wine: one of theſe Sows or Cheeſlips with many feet, in one hemine of wine: earthworms in honyed vinegre with myrrhe, be all excellent for the ſaid diſeaſe. Moreover, it is ſaid, that a hen with yellow feet is very good therefore; in caſe the ſaid feet be cleanſed and waſhed firſt in faire water, afterwards bathed and rinſed in the wine that the patient is to drinke. The brains of a Partridge, Ægle, or other birds of prey, taken in three cyaths of wine, is very proper alſo therefore. The aſhes of dates; thoſe alſo of the entrails of ſtockdoves, given in honyed wine to the quantitie of three ſpoonfuls, are ſoveraign in this maladie: likewiſe the aſhes of ſparrows burnt in a fire made of vine-wood, worke the ſame effect, if they be taken in mead to the quantitie of three ſpoonefuls. A bird there is called in Greeke Icterus, of the yellow colour which the fethers carrie, which if one that hath the jaundiſe doe but looke upon, he or ſhe ſhall preſently be cured thereof; but
E the poore bird is ſure to die for it: I ſuppoſe that this is the ſame bird which in Latine is called Galgulus.

As for the Phrenſie, it ſeemeth that the lights of a mutton, applied hot round about the head and ſo kept faſt, is ſoveraigne to bring their heads againe into temper, who are beſides themſelves. Say that true it were, that not only the brains of mice given in water to drinke, or the aſhes of a weazill, but alſo the fleſh of an urchin kept in ſalt or dried, are verie good for ſuch as are bereft of their right wits; who will venture to give them theſe medicines, be they never ſo certaine and aſſured? For as touching the aſhes verely of Scritch-owls eyes calcined, (which theſe magicians ſo highly commend for the phrenſie) I take it to bee one amongſt many other of their illuſions, whereby they mocke and abuſe the world. But above all, the courſe that they take in the
F cure of fevers, ſavoureth nothing at all of phyſicke, which indeed is oppoſit to all their rules and proceedings: for they have divided and digeſted the ſame into all the twelve ſignes in the Zodiacke, according as the Sun or Moone paſſeth through any of them: All which, is nothing elſe but a meere mockerie to be rejected and utterly condemned, as I will plainly proove and ſhew to the view of the eye by ſome few examples and inſtances gathered out of many. For in the firſt

place they ordaine, that when the Sun is in Gemini, the combs, the ears, the nailes, and clawes of cocks should be burned, and the ashes thereof tempered with oile, wherewith the sicke persons are to be annointed all over: but if the moone do passe through the said signe, the same cure (say they) is to be done with the ashes that come of their barbs and spurs: whiles either Sun or Moon be in Virgo, the cure doth alter, and is to be wrought with barly corns in the same manner used. But how if either of these two planets be in Sagittarius? then the wings of a Batt must serve the turne. In case the moone be entred into Leo, they employ the leaves and braunches of the Tamariske; mary it must be the tame and garden Tamariske in any case. Lastly, if she be in Aquarius, they prescribe the coles made of box-wood, punned and pulverized. Certes, I purpose not to run through all their Receits: such onely as are found and approoved good, or at leastwaies carrie some shew and probabilitie therof, I am content to set downe: as namely, when they give order for strong odours and perfumes to be applied unto patients lying of a lethargie, for to awaken and raise them out of their dead sleepe: among which peradventure, the stones of a weazill dried and long kept, or their liver burnt, may do some good. And whereas they thinke it convenient to apply hot unto their heads all about, the lungs of a mutton, they speake not altogither besides sense and reason. G H

As for quartane agues, forasmuch as it is often seene, that all the physicke that is used about them doth little good or none at all, be a physician never so Methodicall, Rationall, & Diligent, yea though he visit such patients ordinarily, and bee present with them by their bed sides: in that regard I will not sticke to relate many of their medecines and receits for this disease; beginning first with those that are locall, and outwardly to bee applied, hanged, or worne about any part of the bodie. *Imprimis*, they say, that the dust or sand wherein any hawke or bird of prey hath basked or bathed her selfe, is singular good for the quartane ague, if the patient weare it in a linnen cloth tied with a red thread. *Item*, the longest tooth in the head of a cole-blacke dog, is very proper for this purpose. There is a kind of bastard wesps, which the Greeks thereupon call Pseudospheces, and ordinarily they doe flie alone, and not in troups as others doe; which, if they bee caught with the left hand, and hanged about the necke under the chin, do cure quartans, as some magicians say: howbeit, others attribute this effect to one of these wesps, which a man saw first the same yeare. Cut the head of a viper off, or take out the heart alive, and wrap the one or the other within a little linnen rag, and carrie it about you, the quartan ague will bee gone anon, by their saying. Some of them take onely the little prettie snouts end of a mouse, or the very tips of the ears, and enjoyne the patient to lap the same in a red carnation coloured cloth, and so to carie it about him; but then the mouse must in any case bee let goe againe and not killed. Others plucke out the right eye of a green lizard alive; which done, within a while after they chop off the head: then they enfold them both in a peece of goats skin, & give the patient in charge to have the same about him. And many there be, who by the direction of magicians carrie about them in like manner for the same purpose, one of these flies or beetles that use to roll up little balls of earth: and in very truth, in regard of this kind of beetle, the greater part of Ægypt honour all beetles, and adore them as gods, or at leastwise having some divine power in them: which ceremoniall devotion of theirs, *Appion* giveth a subtill and curious reason of; for he doth collect, that there is some resemblance between the * operations and works of the Sun, and this flie: and this he setteth abroad, for to colour and excuse the superstitious rites of his countreymen. Howbeit the magicians employ in the cure of a quartan ague, another kind of them * which hath little horns turning backward, but they must be gotten likewise with the left hand, or els they will doe no good. As for the third sort, spotted with white, and called in Latin by the name of Fullo, they appoint one of them to be slit through in twaine, and the two peeces to be tied to both armes of the patient; whereas those of other kinds, they bind to the left arme onely. Semblably they say, that the heart of a snake taken out of her bodie alive with the left hand, cureth the quartan, if the patient carrie it about him: as also, that whosoever taketh foure of the knots or joynts of a scorpions taile, togither with the sting, and carrieth the same about him enwrapped within a peece of black cloth, with this charge, That for three daies space he do not see either the scorpion which was let goe, nor the partie who tied the said cloth and that which is within it about him, he shalbe delivered from the quartan ague: but after the returne of the third fit, the patient must hide this clout and the joynts aforesaid, and burie them in the ground. Some there be who lap a caterpiller in a little peece of linnen cloth, and bind the same thrice about with linnen thread, making I K L M

three

*Haply, because all these beetils be coũted of the male sex, & none of them female: for in those little roundles of earth there breed grubs, which turne to be in the end beetles.

*This beetle he called before *Taurus*, i. Bull.

A three knots thereof, ſaying at the knitting of every knot, that this they doe to cure him or her of a Quartane feaver. Others carie about them a naked ſnaile in a little peece of fine leather: or elſe foure heads of ſnailes cut off and encloſed within a ſmall reed. Many think it better to enfold one of theſe ſowes or cheeſlips within a locke of wooll, and ſo to carie it about them against the quartane, or els the little grubs or wormes whereof come the Oxe flies, before their wings bee growne. And there be that for this purpoſe fit themſelves with thoſe ſmall wormes covered all over with a kind of downe or cotton, which are found in thickets, & among buſhes or ſhrubs. Some of theſe Magicians give direction otherwhiles to take foure of the ſaid wormes encloſed within a Walnut ſhell, and to bind them to ſome part of the patient, or elſe the ſnailes which be found naked without their ſhels. Others put a live Stellion or ſtarre-Lizard in ſome little caſket or box, and lay
B the ſame under the pillow or boulſter where the patient laieth his head: but when the ague beginneth to decline and is like to goe away, they let the ſaid Stellion goe againe at libertie. They preſcribe likewiſe to ſwallow downe the heart of a ſea gull or cormorant, taken forth of the bodie without any knife or inſtrument of yron: If not ſo, to keepe the ſame dried, to beat it to pouder, and then to drinke it in hote water. The hearts of Swallowes condite in hony, and ſo eaten, be excellent good for the Quartane ague, as our Magicians ſay. And yet ſome of them make no more adoe, but give of their dung to the weight of one dram, in three cyaths of Goats milke and Ews milke, or elſe of wine cuit, before the acceſſe come. Howbeit, others would have the Swallowes themſelves to bee eaten whole without any dreſſing at all. The people of Parthia drinke for the Quartane ague the ſixt part of a denier weight of an Aſpis skin, with the like poiſe of Pepper, and
C they hold it to be a ſoveraigne remedie. *Chryſippus* the Philoſopher was of opinion, and ſo hee hath put downe in writing, That to carie one Phryganium tied to ſome part of the bodie, is excellent for the Quartane. But what living creature hee ſhould meane by that ſame Phryganium, neither hath he himſelfe deſcribed, nor ever could I meet with any man that knew it: howbeit, I thought it good to ſet downe this remedie, being thus delivered by ſo grave an Authour as *Chryſippus* was, to ſtir up the diligence of others, if haply there be any ſo induſtrious as will take pains to ſearch further into the thing, and learne what it might be.

In any of theſe long diſeaſes which be called Chronique, it is commonly thought, That to eat the fleſh of a Crow, and to applie unto the bodie their *neaſt, is moſt excellent to bring them to an end. *Nidum.* Some read *Nitrum.*

D As for Tertian agues, it were an eaſie matter to trie the experiments of ſuch receits as are given out for them: conſidering how the poore patients in hope of eaſe are willing ynough & delighted to be doing and working concluſions: and namely to ſee whether the copweb, neaſt and all, of that ſpider which they call *Lycos, incorporat with roſin and wax, and ſo applied as a frontale to the forehead and temples on both ſides of the head, will doe any good to rid them away? Certes ſome uſe to wear about them the ſpider it ſelfe, encloſed within a quill or peece of a reed: in which ſort it is reported to availe much in the cure of other feavers. Alſo it is thought, That a greene Lizard hung about the neck alive in ſome box ſufficient to receive it, is as effectuall. And theſe kind of medicines they affirme to bee of great efficacie for to drive away thoſe agues which by way of relaſpe uſe often to returne againe when they were thought to be cleane gone. *i. Wolfe. Supposed to be our common ſpider that hunteth flies.

E Touching the dropſie, the tried greaſe of ſweatie wooll taken in wine with a little Myrrhe, ſo that the whole ariſe to the quantitie of an Hazell nut, is ſuppoſed to be a ſingular receit. But ſome put thereto Gooſe greaſe alſo and oile of Myrtles. The filthie ordure that gathereth about Ewes udders, hath the ſame effect. Likewiſe, the fleſh of an Vrchin long kept in pouder or otherwiſe, and eaten, doth much good. To conclude, it is thought, That if the bellie be rubbed well and annointed with that which a dog dooth uſe to caſt by way of vomit, it helpeth thoſe that bee in a dropſie, for it is reported to have a ſpeciall vertue to draw a water, and to drie up the ſuperfluous humiditie engendring that diſeaſe.

Chap. xii.

F *Medicines for S. Anthonies fire, carbuncles, fellons, burnes, crampes, or contractions of ſinewes.*

THe ſuet or greaſe of unwaſhed wooll incorporat with oile of Roſes and Tutie, is a proper liniment for S. *Anthonies* fire: ſo is the bloud of a tike, and earth-wormes reduced into an unguent with vinegre: but eſpecially theſe cricquets, cruſhed and wrought within ones hand

hand to the conſiſtence of an unguent and ſo applied. And this medicine laſt mentioned, is paſſing effectuall for the partie himſelfe that hath the handling of it: for it aſſureth him aforehand, that he ſhall not fall into the ſaid diſeaſe in a whole yeare following: But this Cricquet muſt bee digged out of the ground with ſome inſtrument of yron, and the earth & all to be taken up with it, for to ſerve in this cure. Moreover, it is ſaid, That Gooſe greaſe is very good in this caſe: ſo are the aſhes of a Vipers head kept dried and then calcined, if the ſame be afterwards applied in form of a liniment with vinegre. The old ſloughs that ſnakes caſt off, reduced into an unguent with Bitumen and Lambes ſuet, quencheth this burning humor of S. *Anthonies* fire, if the bodie be annointed therewith tempered in water, preſently after the baine. G

As for Carbuncles, the means to rid them away, is to annoint them either with Pigeons dung alone, or els mixed with Line ſeed and honied vinegre. Likewiſe, it is good to make a caraplaſme of thoſe Bees which have beene drowned or killed in their owne honey, and lay the ſame upon the ſore. Others applie unto them either a pulteſſe of fried Barley groats, or elſe a pouder made with their meale. If there be a carbuncle riſen in the privities, the fattineſſe of greaſie and unwaſhed wooll, incorporat in honey and the skales refuſe or cindres of lead, into a ſalve, cureth it: and the ſame healeth generally all other botches or ulcers in thoſe parts. Sheepes dung that is freſh and greene, they hold to be ſingular for carbuncles, taken in the very beginning. H

All tumours and hard ſwellings, which had need to be mollified, are made ſoft and brought downe moſt effectually with Gooſe greaſe, or the fat of a Swan.

Moreover it is ſaid, That a ſpider laid to any fellon, before it bee once named what thing it is, cureth the ſame; but it muſt not bee remooved from the place before the third day. The Mouſe called an Hardiſhrew hanged up alive untill it be dead, is very good for theſe fellons, in caſe it touch not the ground afterward, and that there bee three circles or turnes made with it round about the ſore; ſo that withall both the patient and the partie that hath this cure in hand, ſpit upon the floore three times in the doing thereof. Alſo the dung of Cocke or Hen (that which looketh reddiſh eſpecially) tempered with vinegre and laid to a fellon, healeth it; but the ſaid dung ought to be freſh and newly meuted. Of the ſame operation and effect is the giſier of a Storke boiled in wine. Some there be that take certaine flies of ſome odde and uneven number, bruſe and worke them into the conſiſtence of a ſalve, with their *ring-finger, and therewith applie them to the fellon. Others uſe for the ſaid purpoſe the filth engendred in ſheeps eares. Old ſheeps tallow mixed with the aſhes that come of womens hair, reduced into a liniment, ſerveth to cure the ſaid accident: ſo doth Rams ſuet mixed with the aſhes of a pumiſh ſtone calcined, and a like quantity in weight of ſalt. I K

*Medico, i. the fourth or next to the little finger.

As for burnes and ſcaldings, the aſhes of a dogs head burnt, are ſingular good to cure the ſame: ſo be the aſhes of Dormice tempered with oile: ſheepes treddles alſo mixed with wax: the aſhes of mice and ſhell-ſnailes; and this medicine will skin them ſo cleane, that there ſhall no ſcar remaine afterwards to be ſeene. In like manner, the greaſe of Vipers: or the aſhes of Pigeons dung calcined and reduced into a liniment with oile.

Touching the nodoſities of the ſinewes, the aſhes of a Vipers head burnt and brought into an unguent with the oile Cyprinum, is thought to bee a ſoveraigne medicine for to reſolve them. Likewiſe, earth-wormes made into a cataplaſme with honey, and ſo applied unto the affected place. But if the ſaid ſinewes doe ake and be pained: bind unto them the ſerpent called Amphisbæna dead, and it will eaſe the greefe. The like effect you may looke for of Vultures greaſe, together with the giſier of the ſaid foule, dried and ſtamped with old ſwines greaſe or lard, and ſo reduced into a liniment. And if wee may give any credit to the Magicians, a drinke made of honied wine, ſpiced with the aſhes of a Scrich-owles head, together with a Lillie root, will worke the ſame effect. L

In contractions of the ſinewes, it is good to eat the fleſh of Stock-doves, eſpecially if the ſame hath been poudered and kept in ſalt. The fleſh likewiſe of an Hedgehog is as good for crampes and ſpaſmes: as alſo the aſhes of a Weazill. The old ſlough that ſnakes leave off, enfolded within a peece of a Buls skin or leather made thereof, is good to be worne tied about one for to prevent this diſeaſe: and more particularly for thoſe ſpaſmes or convulſions that draw the ſinewes of the necke ſo, as the head is plucked backward, there is not a better medicine than to drink the poiſe of three oboli of a Kites liver dried, in as many cyaths of mead or honied water. M

When the skin turneth up about the roots of the nails, or the excreſcence of the fleſh putteth

the

A the fingers to paine, which accidents be called in Latine Reduviæ, and in Greek Pterygia: it were good to uſe to them the aſhes of a dogs head calcined, or the matrice of a bitch ſodden in oile; with this charge, to annoint them aloft with a liniment of butter, made of ewes milke and honey incorporat together. The burſe likewiſe or little bladder, which containeth in it the gall of any beaſt, is good for this purpoſe.

If the nailes bee ragged and rugged, it is not amiſſe to applie unto them Cantharides incorporat with pitch, without removing this plaſtre before the third day: or els to lay unto them Locuſts fried in Goats ſuet: ſheeps tallow alſo is good therfore. Some mix therwith Birdlime made with Miſſelto and Purcellane tempered together: others take Verde gris or ruſt of braſſe and the foreſaid birdlime, but they remove not the plaſter off in three daies.

B

Chap. xiii.

Receits for ſtaunching bloud: repreſsing or ſmiting backe the ſwelling incident to wounds: healing of ulcers and greene wounds: and generally for curing of many other maladies. Remedies all taken from dumbe creatures.

THe ſuet that commeth from the kell of a Mutton, ſtaieth any flux of bloud, if it be conveied into the place from whence it iſſueth: ſo is their rede, eſpecially if it be the rennet of a yong Lambe tempered with water, either drawne up into the noſthrils or poured into them: this C is thought to bee ſuch a ſoveraigne remedie, that when all others have failed, it hath done the deed. The earthie ſubſtance ſticking to ſhell-ſnailes, hath the ſame effect: yea, and their verie fleſh when they are pulled out of their houſes. In caſe the noſe do bleed exceſſively, take the ſaid ſhell-ſnailes, bruiſe them and lay them to the forehead, they will ſtaunch the bleeding: the cop-webs alſo put up into the noſthrils. As for the braines of a Cocke or Capon, they ſtop a flux of bloud iſſuing from the braine. But ſay that bloud doe guſh immoderatly out of a wound: it is wonderfull how the aſhes of horſe dung, together with eggeſhels, will ſtop the ſame, if it be laid thereto.

As for *wounds, the greaſe of unwaſhed wooll, incorporat with the aſhes of torrified and calcined Barley and Verdegris, of each a like quantitie, and ſo made into a plaſtre, healeth them. D The ſame is a ſoveraigne ſalve for any corroſive ulcers, be they never ſo maligne and cankerous. It eateth and conſumeth the dead fleſh about the brims and edges of ulcers, yea, & bringeth down the excreſcence of proud fleſh, reducing the ſame to bee even with the reſt about it. The ſame doth incarnat likewiſe and skin the place after it is filled up with young fleſh. If the ulcers proove to be illfavoured cankers, it is thought, That the aſhes of ſheepes dung mixed with ſalnitre, is an effectuall pouder for the ſame: and as great operation is attributed to the aſhes of a Lambs leg bones, but principally if the ſaid ſores bee of the nature of *Nunquam ſana*, and will not skin up, but ſcorne all healing plaſtres whatſoever. Much vertue alſo is attributed unto Rams lights in theſe caſes; for it eateth away all the excreſcences of ranke fleſh in ulcers, and there is not the like againe unto it, for reducing all unto an equalitie. The very dung alſo of ſheepe heat under an E earthen pan and afterwards wrought into a maſſe or paſte, aſſuageth the tumour of any ulcers: And it ſerveth likewiſe to mundifie and heale fiſtulaes, as alſo to rid away the chil-blanes or bloudie fals, which are our night-foes. But of all other, the aſhes of an horſe head is moſt forcible in this caſe, for it conſumeth all ſuperfluous fleſh growing in ſores, and healeth up the ſame afterwards, no Spodium better. And yet it is ſaid, that Mice dung is very good therefore: like as the aſhes of Weazils dung. The hard calloſities in the bottome of ulcers, the Cheeſlips or Sowes if they be ſtamped freſh and reduced drie into pouder, doe ſearch throughly: like as all cankers alſo they cure, if they be incorporat with the right Terpentine and common *Bole-Armoniacke. And theſe medicines aboveſaid are ſingular for thoſe ulcers that be given to breed wormes, and thereby are daungerous. And ſeeing I am light upon the mention of wormes, it would be noted, F that there bee diverſe ſorts of wormes which have wonderfull properties in theſe caſes: For firſt and formoſt, the groſſe and fat wormes breeding in wood & timber, which the Latins call Coſſi, are ſoveraigne healers of any ulcers whatſoever. But if the ſame bee burnt with an equall weight of Anniſe ſeed, and reduced into a liniment by the meanes of oile, they have a ſpeciall vertue to cure thoſe ſores that be corroſive, which the Greekes call Nomæ. Earthwormes are great heaters, and

**Vulneribus.* Some read *Viceribus*, i. Vlcers.

**Sinopide*: ſome take it for *Terra Sigillata*: but it skilleth not much, ſeeing that *Rubrica Sinopica*, *Terra Sigillata*, & *Bolus Armena*, yea, and *Terra Lemnia*, little differ in operation, *niſi ſum magis & minus*, as the learned thinke, *Vide Encelium de re Metallia.*

and ſoone do ſouder greene wounds: in which operation they are ſo effectuall and ſpeedie withall, That if the ſinewes bee cut quite aſunder, it is a common opinion, that they will conſolidat and unite them againe in leſſe ſpace than a weeke: and therefore, becauſe they ſhould bee readie and ever at hand, many preſerve them for this purpoſe condite in hony. Indeed, when they be reduced into aſhes, they are effectuall to eat down the hard callofities growing in the ſides and edges of ulcers, if they be incorporat with Tarre, or the Sicilian honey called Hyblæum. Some uſe them dried in the Sun and tempered with vinegre, for wounds: but this cataplaſme they doe not remove untill two daies be paſt. After the ſame manner, the terrene or earthly ſubſtance of ſhell-ſnailes doe much good: yea, and taken forth whole as they bee out of their ſhels, ſtamped and ſo applied, they conglutinat greene wounds, and ſtay the running farther of corroſive ulcers. Alſo there is a certaine living creature, which is called Herpes by the Greekes; the ſame hath a peculiar propertie to heale any ſore that *runneth on ſtill and corrode as it goeth. For which kind of ulcers, ſnailes, bruiſed ſhels and all, bee paſſing good: and the ſame incorporat with Myrrhe and Frankincenſe, have the name to heale ſinewes that be cut in twaine. Moreover, the fat of a Dragon dried in the Sun, is very effectuall: like as the braines alſo of a Cocke, to heale green wounds, if the patient withall eat ſalt to his meat, which was calcined together with Vipers fleſh: And by this meanes (they ſay) that any ulcers will ſooner yeeld unto the cure, and bee healed with more ſpeed. The renowned Phyſician *Antonius Muſa*, having certaine patients in cure under his hand, who had ulcers that were thought incurable, preſcribed them to eat Vipers fleſh; and wonderfull it is how ſoone he healed them cleane by that meanes.

G

H

*Which alſo is called Herpes: as the ſhingles, wild fire and wolfe.

The aſhes of certain Locuſts without wings, called by the Greeks Tryxalides, cauſe the thick roufes and eſcarres that grow about the brims of ulcers to fall off, and they conſume the hard callofities thereof applied with hony. The aſhes likewiſe of Pigeons dung tempered with Orpiment or Arſenicke and Honey, ſerve as a corroſive to eat away any excreſcence that ought to bee conſumed. The braines of Scrich-owles incorporat with greaſe, dooth wonderfully conglutinat anie wounds. As for thoſe morimals, named by the Greekes Cacoëthe, the aſhes of a Rams ſhanke-bones and legs mixed with breaſt milke, is ſingular to heale them, ſo that the ſaid ſores were firſt well and throughly waſhed and bathed with fine linnen cloaths ſoked in ſome convenient liquor. There is a bird called an Hulat, which if it be ſodden in oile and ſo reſolved, is good therefore, in caſe the ſame bee incorporat in butyr made of Ewes milke and honey. If the ſides or brims of any ulcer be growne callous and hard, the Bees that are ſtifled and killed in honey, doe mollifie very well. The bloud and aſhes of a Weazill calcined, doe cure the white filthie leproſie called Elephantiaſis. The wounds occaſioned by whipping and ſcourging, the markes alſo and wales remaining to be ſeene blacke and blew after ſuch laſhes and ſtripes, are done away and goe preſently out, with applying thereto a ſheepes skin freſh and newly flaied. If there be any joint bruiſed or cracked, the aſhes of a ſheepes leg bone, burnt, have a ſpeciall vertue to helpe the ſame: but much better, if they be incorporat into a cerot with wax. Of the ſame operation there is another plaſtre made, namely, If there be calcined with the former the jawes of the ſaid ſheepe, and a Harts horne: and if the wax be ſoftened and reſolved with oile roſat. When bones be broken, it is good to applie unto the fracture the braines of a dog ſpread upon a linnen cloth or enwrapped therein, covering the ſaid cataplaſme with wooll laid aloft, and the ſame eftſoones moiſtened and wet throughly [*in ſome aſtringent liquor:] This manner of cure doth ſouder them lightly in foureteene daies at the fartheſt. The aſhes alſo of field-Mice worke the like effect as ſpeedily, if the ſame be tempered with honey, or mingled with the aſhes of earthwormes: which alſo is able to draw forth ſpils of bones, and make them to worke out. The lights of a Mutton and of a Ram eſpecially, reduce skars to their lively colour againe, ſutable unto the skin about: their tallow alſo mixed with ſal nitre: ſo doe the aſhes of a greene Lizard: the ſlough that ſnakes caſt off in the Spring boiled in wine: and Pigeons dung tempered with honey, and ſo applied. The ſame medicines doe take away the filthie white Morphew, called in Latine Vitiligo, if they bee uſed with wine: for which Morphew or infection of the skin, it is good to applie Canthárides, with twice as much of Rue leaves, which the patient muſt endure and abide, lying ſtill upon the place in the Sunne, untill ſuch time as the skin begin to riſe in pimples and little bliſters. Afterwards it is needfull to foment and bath the ſaid place thus offended, yea, and to annoint it well with oile: which done, to return again to the former emplaſtration, & ſo hold on this courſe by turnes for many daies together, but in any wiſe to take heed that the exulceration by this cure

I

K

L

*As oile of roſes, or red wine.

M

goe

A goe not over deepe. For the ſame Morphew, many give order to make a liniment with flies & the root of dockes, and herewith to annoint the places infected with this Morphew: alſo, to applie thereto hens dung, I meane as much thereof as is white: for which purpoſe they keepe the ſame in oile within horne boxes, for to ſerve the turne as need requireth. Likewiſe, to annoint them with the bloud of bats, or the gall of an urchin tempered with water. As for the running skals, the braines of a ſcritch-owle is very good, incorporat with ſalt petre: but dogs bloud hath no fellow to repreſſe the ſame: like as to kill the itch, the little broad ſnailes ſtamped and brought into a liniment, are ſoveraigne. If there bee any ſpill or ſhiver of arrowes, if any peece of a dart or whatſoever elſe ſticke within the fleſh, which would bee gotten forth, ſplit a live mouſe in the middeſt, and lay the ſame hot to the place, you ſhall ſee how it will draw the ſame out. But a Li-
B zard paſſeth all the reſt, being in this wiſe ſlit along and divided: or if the head onely be ſtamped with ſalt, and applied accordingly. There be certaine ſhell-ſnailes that creepe in troupes together for to devour the young ſpring and greene leaves of plants, which ſerve to this effect, if they bee punned with their ſhels and laid to the place. Thoſe alſo that we uſe to dreſſe and eat, if they be taken forth of their ſhels: but if you put thereto the rennet of a young hare or leveret, it is woonderfull to ſee how effectually they will worke. Snakes bones incorporat with the rennet of any fout footed beaſt whatſoever, within leſſe than three daies ſhew the ſame effect, and draw foorth any thing that ſticketh within the bodie. Finally, the flies called Cantharides are much commended for this operation, if they be ſtamped and incorporat with barley meale.

C

Chap. xiiii.

Proper remedies for the cure of womens maladies: and to helpe them for to goe out their full time, and bring forth the fruit of their wombe fully ripe and accompliſhed.

THe skin or ſecundine which an Ewe gleaneth after ſhee hath yeaned, and which enlapped the lambe within her bellie, prepared, ordered, and uſed (as I ſaid before) as touching goats, is very good for the infirmities that properly be incident unto women and occaſioned by their naturall parts. The dung likewiſe of ſheepe, bee they rams, ewes, or weathers, hath the ſame operation. But to come unto particulars, the infirmity which otherwhiles putteth them
D to paſſe their urine with difficultie and by dropmeale, is cured principally by ſitting over a perfume or ſuffumigation of Locuſts. If a woman after that ſhe is conceived with child, uſe eftſoons to eat a diſh of meat made of cock ſtones, the infant that ſhe goeth with ſhall prove a manchild, as it is commonly thought and ſpoken. When a woman is with child, the meanes to preſerve her from any ſhift and ſlip that ſhe may tarie out her full tearme, is to drinke the aſhes of Porkepines calcined: alſo the drinking of a bitches milke maketh the infant within the wombe to come on forward and to grow to perfection, before it ſeeke to come forth untimely. Alſo, if the child ſticke in the birth, or otherwiſe make no haſt to come foorth of the mothers bodie when the time is come: the skin wherein the bitch bare her whelpes within her bodie, and which commeth away from her after ſhe hath puppied, haſteneth the birth, if ſo be it were taken away from her before it
E touchee the ground.

If women in labour drinke milke, it will comfort their loines or ſmall of the back. Mice dung delaied and diſſolved in raine water, is very good to annoint the breaſts of a woman, newlaid, for to breake their kernell, and to allay their overmuch ſtrutting preſently after childbirth. The aſhes of hedgehogs preſerveth women from abortion or untimely births, if they be annointed with a liniment made of them and oile incorporat together. The better ſpeed and more eaſe ſhall thoſe women have of deliverance, which in the time of their travaile drinke a draught of Gooſe dung in two cyaths of water: or elſe the water that iſſueth out of their owne bodie by the naturall parts a little before the child ſhould bee borne, and that out of a weazils bladder. A liniment made of earth-wormes, if the nouch or chine of the necke and the ſhoulder blades bee annointed there-
F with, preſerveth a woman from the paine of the ſinewes, which commonly followeth upon child bearing: And the ſame ſend away the after-birth, if when they bee *newly brought to bed, they drinke the ſame in wine cuit. A cataplaſme made of them ſimply alone without any other thing, and applied unto womens ſore breaſts which are impoſtumate, bring the ſame to maturation, breake them when they are ripe, draw them after that they run, & in the end heale them up clean

*Gravidis, κ) χρησικοις, for Puerperis.

and

and skin all againe. The ſaid earthwormes alſo if they be drunke in honied wine, bring down milk G
into their breaſts. There be certaine little wormes found breeding in the common coich-graſſe, called Gramen, which if a woman weare about her necke, ſerve very effectually, to cauſe her for to keepe her infant within the wombe the ordinarie tearme: but ſhee muſt leave them off when ſhe drawes neare unto the time when ſhe ſhould crie out: for otherwiſe, if they be not taken from her, they would hinder her deliverance. Great heed alſo there muſt be taken, that theſe worms be not laid upon the ground in any hand. Moreover, there be Phyſicians who give women to drink five or ſeven of them at a time, for to helpe them to conceive. If women uſe to eat ſnailes dreſſed as meat, they ſhall be delivered with more ſpeed, if they were in hard labour: let them be applied unto the region of the matrice or naturall parts with Saffron, they haſten conception. If the ſame be reduced into a liniment with Amylum and gum Tragacanth, and laid too accordingly, H
they doe ſtay the immoderat flux of reds or whites. Being eaten in meat, they are ſoveraigne for their monthly purgations. And with the marrow of a red Deere they reduce the matrice againe into the right place, if it were turned a to ſide: but this regard muſt bee had, that to every ſnaile there be put a dram weight of Cyperus alſo. If the matrice be given to ventoſities, let the ſame ſnailes be taken forth of their ſhels, ſtamped and laid too with oile of roſes, they diſcuſſe the windineſſe thereof. And for theſe purpoſes beforenamed, the ſnailes of Aſtypalæa bee choſen for the beſt. Alſo for to reſolve the inflation of this part, there is another medicine made with ſnails, eſpecially thoſe of Barbarie, namely, to take two of them and to ſtampe them with as much Fenigreeke ſeed as may be comprehended with three fingers, adding thereto the quantitie of foure ſpoonefuls of honey, and when they bee reduced all into a liniment, to applie the ſame unto the I
region of the wombe, after the ſame hath beene well and throughly annointed all over with the juice of Ireos, or Floure de lis. There bee moreover certaine white ſnailes that bee ſmall and long withall, and theſe be commonly found wandering here and there in every place. Theſe being dried in the Sunne upon tiles and reduced into pouder, they uſe to blend with Beane floure, of each a like quantitie. And this is thought to bee an excellent mixture for to beautifie their bodie, and make the ſkin white and ſmooth. Alſo, if the itch be offenſive, ſo as a woman bee found ever and anon to ſcratch and rub thoſe parts, there is not a better thing therfore than the little flat ſnails, if they bee brought into a liniment with fried Barley groats. If a woman with child chaunce to ſtep over a Viper, ſhe ſhall be delivered before her time of an unperfect birth. The like accident will befall unto her, in caſe ſhe goe over the ſerpent Amphisbæna, if the ſame were dead before. K
And yet if a woman have about her in a box one of them alive, thee ſhall not need to feare the going over them, though they were dead. And one of theſe Amphisbænes dead as it is and preſerved or condite in ſalt, procureth ſafe and eaſie deliverance to a woman that hath it about her. A wonderfull thing, that it ſhould be ſo daungerous for a woman with child to paſſe over one of them which hath not been kept in ſalt; and that the ſame ſhould be harmeleſſe and doe no hurt at all, if immediatly after it hath been ſo kept, ſhe ſtep over it. A perfume made with a ſnake long kept and dried, procureth the deſired ſickneſſe of women. The old ſlough of a ſnake which ſhee hath caſt, applied unto the loines of a woman that is in labour, helpeth her to better ſpeed: but it muſt be removed preſently after that ſhe is delivered. Many uſe to give it unto women with child for to bee drunke in wine with Frankincenſe: for beeing taken otherwiſe, it cauſeth abortion. The L
rod or wand whereby one hath parted or taken off a frog or toad from a ſnake, helpeth women that be in travell of childbirth. And a liniment made with the aſhes of the unwinged Locuſts called Tryxalides and honey tempered together, helpeth forward their monthly purgations. The ſpider like wiſe that commeth downe ſpinning from aloft, hanging by her fine thread which ſhee draweth in a length, if ſhe be caught with the hollow of the hand, bruſed and applied accordingly, worketh the ſame effect: but take the ſame ſpider winding up her yearne, and returning backe to her neaſt upward, it will worke contrariwiſe, and ſtay the fleurs of women. The Ægle ſtone called Aëtites, becauſe it is found in an Ægles neſt, preſerveth and holdeth the infant ſtill in the mothers wombe to the full time, againſt any indirect practiſe of ſorcerie or otherwiſe, to the contrarie. If a woman be in hard labour of childbirth, put a Vultures quill under her feet, it will helpe her to a M
more ſpeedie deliverance. Great bellied women, as it is well knowne and found by proof, ought to bee very charie and to beware of Ravens egges, for if they chaunce to goe over one of them, they ſhall fall to labour preſently, and ſlip an untimely birth with great daunger of their life. It ſeemeth to many, that the mewing of an Hawke drunke in honied wine, maketh women which

were

A were barraine before, to be fruitfull. Certes, the greace of a goose or swan, doth mollifie any hard tumors, schirrhs, and impostumations of the matrice and secret parts. Goose greace mixed with the oile of roses and * Ireos, *preserveth womens breasts after they be newly brought to bed. In Phrygia and Lycaonia, it is found by experience, that the fat of the Bistard or Horne-owle, is verie good for greene women lately delivered, if they bee troubled with the pricking or shooting pains of their breasts: but for women that are in daunger to bee suffocated with the rising of the mother, they have a liniment also made with the beetils or worms called Blattæ. The ashes of Partridge eg-shells calcined, mixed with brasse-ore called Cadmia, and wax, and so reduced into a cerot, preserveth womens breasts plumpe and round, that they shall not be riveled or flaggie: and it is thought, that if a woman make three imaginarie circles round about them with a B Partridge egg, they shall continue knit up and well trussed, and not hang downeward illfavouredly: let a woman use to sup them off, she shall be both a fruitfull mother of many children, and also a good milch nource for to reare them up. Also it is a generall received opinion, that if womens paps be annointed all over with goose greace, it will allay the griefe and paine therof: likewise there is not a better thing for to dissolve and scatter moon-calves, and such like false conceptions in the wombe: or to mitigat the scurfe or mangineſſe incident to that member, than to apply to those parts a liniment made of punaises bruised, or stamped to the purpose.

Bats bloud hath a depilatorie facultie to fetch off haire, and lett the growing thereof; howbeit, sufficient it is not alone to worke that feat in boyes cheeks and chins whom we would keepe smooth and beardlesse, except the place bee rubbed afterward with the seed of rocket and hemlocke: and in this manner if they be dressed, either no haire at all will come up there, or else it C will never be but soft downe. It is thought that their brains also will worke the same effect. Now these brains be of two sorts, to wit, red and white: howbeit some give counsell, to mingle with the said brains, both the bloud and the liver. Others there be, who seeth in three hemines of oile, a viper, untill her flesh be throughly sodden and as tender as may be, having before rid her from all her bones; and it they use for a depilatorie: but first they plucke up all those hairs by the roots which they would not have to grow any more. The gall of an urchin is a depilatorie, especially if it be mixed with the brains of a batt and goats milke: *Item*, the ashes thereof simply, mingled with the milke of a bitch of her first litter; so that the haires which wee would not have to come againe, be plucked up; or if those places be annointed therwith where never yet grew any, none D shall spring there afterwards. The same effect (by report) hath the bloud of a ticke that was taken from a dog: and finally, the bloud or gall of a swallow.

* *Irino*, as followeth in the next chapter; not *araneo*, as it is in most prints.

* From swelling, hardnes, or the ague (as women call it.)

Chap. xv.

Many receits handled togither disorderly one with another for sundrie maladies.

IT is said, that Ants eggs stamped and incorporat with flies likewise punned togither, will give a lovely blacke colour to the hairs of the eyebrows: also, if a woman be desirous that her infant should be borne with blacke eyes, let her eat a rat whiles she goes with child. To preserve the haire from beeing grey or grisle, annoint them with the ashes of earthworms and oile olive E mixed togither. If sucking babes bee wrung or gnawne in the belly by reason of some cruddled milke which they draw from their nources, or doth corrupt so in their stomacke, it is good to give them in water the rennet of a young lambe to drinke: but in case this accident commeth by cailling of the milke, they use to give unto them the said rennet in vinegre, for to discusse the same. For the paine that they abide in toothing, the brains of an * hare is soveraigne to annoint their gumbs withall. It falleth out that young infants many times bee tormented with an unnaturall heat and burning of their head, called Siriasis; for to ease and cure them thereof, they use to take the bones that are found in doggs dung, and to hang them about their necks or armes. Young infants are subject to ruptures and descents of the guts, in which case it is good (some say) to apply a greene lizard unto their bodies whiles they lie asleep, and to cause it to bite the place; F but then afterwards the said lizard must be tied fast to a reed and hung up in the smoke: for looke how it decaieth and dieth by little and little, so shall the rupture knit and heale againe. The foamie moisture that shell-snails yeeld, if childrens eyes be annointed therewith, doth not onely rectifie and lay streight the hairs of the eyelids which grow crooked into the eyes, but also nourisheth and causeth them to grow. The ashes of burnt shell-snails reduced into a liniment with fran-

* *Leporis*, or *pecoris*, i. of a sheepe.

kincense

kincenſe and the white of an egg, doth in the ſpace of thirtie dais cure thoſe that are burſten bellied. In the little horns of ſhell-ſnails there is found a certaine hard ſubſtance reſembling grit or ſand, which if it be hanged about a yong infant, is a means that it ſhall breed teeth with eaſe. The aſhes of ſnaile ſhels when the ſnails are gone, incorporat in wax, and applied to the ſeat or fundament, putteth backe the end of the tiwill that is falne downe and readie to hang out of the bodie: but you muſt not forget to mingle with the ſaid aſhes the bloudie ſubſtance that is let out of a vipers brains when her head is pricked. The brains of a viper if they be put in a little fine skin and worne by a young child, helpeth it to breed teeth without any great paine: for the ſame purpoſe ſerve alſo the teeth of ſerpents, ſo there bee choſen the biggeſt that are in their heads: ravens dung lapped in wooll, and hung to any part of young infants, cureth the chincough. G

Some things there remaine as touching this argument, which hardly me thinks I ſhould not handle ſeriouſly and deliver in good earneſt: howbeit, ſince there be divers writers who have put them downe in writing, I muſt not paſſe them over in ſilence. They are of opinion and doe give order, to cure the rupture and deſcent of the guts in little children, with a lizard: but how? firſt, it ought to be of the male kind, which is taken for this purpoſe; and that may ſoone be knowne, if under the taile it have one hole and no more: then there muſt be uſed all means poſſible that the ſame lizard doe bite the tumor of the rupture through a peece of cloth of gold, cloth of ſilver, or purple: which done, the ſaid lizard muſt be tied faſt within a new cup or goblet that never was occupied, and ſo ſet in ſome ſmokie place where it may die. If little infants piſſe their beds, a readie way to make them containe their water, is to give them ſodden mice for to eat. If there be any ſuſpicion of ſorcerie, witchcraft, or enchantment, practiſed for to hurt yong babes; the great horns of beetles, ſuch eſpecially as bee knagged as it were with ſmall teeth, are as good as a countrecharme & preſervative, if they be hanged about their necks. There is (by their ſaying) a litle ſtone within the head of an ox or cow, which they uſe to diſcharge and ſpit out when they be in danger of death; the ſame if it be taken out of one of their heads, which is ſodainly ſtricken off before the beaſt be ware thereof, and hanged about an infants neck or other part of the bodie, is wonderfull good for breeding of teeth. Semblably they doe preſcribe their brains to be carried about them in like manner, and for the ſame purpoſe: alſo the little bone or ſtone found in a naked ſnailes backe. Moreover, the annointing of childrens goumbs with the brains of a ſheepe, is ſingular good and effectuall to cauſe them for to breed their teeth with facilitie: like as gooſe greace inſtilled with the juice of baſill into their ears, cureth the infirmities therof. There be in many prickly hearbs certaine rough and hairie worms, which if they be hung about the necks of young infants, do preſently cure them, if haply there be any thing in their meat that ſtucke and lay hard in their ſtomack, for they will cauſe them to puke it up. To provoke ſleep, there is not a better thing than the tried greace of unwaſhed wooll, with ſome myrrhe be it never ſo little, infuſed & diſſolved in two cyaths of wine; or els incorporat with gooſe greaſe and wine of myrtles: for which intent they uſe to take the bird called a cuckow, and within a hares skin tie it unto the patient; or els to bind the bill of a young heron to the forehead, within a peece of an aſſe skin: and they are of opinion, that the ſame bill alone is as effectuall, ſo it be well waſhed in wine: contrariwiſe, the head of a bat dried & hanged about the neck, keepeth one from ſleepe altogither. A lizard drowned to death in the urine of a man, diſableth him from the uſe of venerie who *dranke the liquor whereof that urine came: and no marvell; for why? the magicians repoſe a great thing in a lizard in love matters. The excrements of ſnails which reſemble dung, as alſo the dung of pigeons, tempered in a cup of wine & given to drink, coole fleſhly luſt. The right lobe or ſide of a vulturs lungs provoke men unto the ſports of *Venus*, if they carrie it about them enwrapped within a cranes skin. In like manner, the yelks of five pigeons egs incorporat with ſwines greace to the weight of one denier Roman in hony and ſo ſupped off, work the ſame effect. Some eat ſparrows ordinarily for this purpoſe; or ſup their egs. Alſo there be, who carie about them the right ſtone of a cocke, encloſed faſt within a peece of leather made of a rams skin, and to good effect, if all be true that magicians ſay: who affirme alſo, that thoſe women who are annointed with a liniment made of the aſhes of the bird Ibis, incorporat with gooſe greaſe and the oile of Ireos, ſhall if they be conceived with child go out their full time: and they ſay, that whoſoever be anointed with a liniment made of the ſtones of a fighting cocke and gooſe greace, ſhall have but little mind to performe the act of generation; or if the ſame be tied to any part of them, within a peece of leather made of a rams skin. In like manner, it is ſaid that the ſtones of any other dunghill cock, are of the ſame effect, H I K L M

* *Biberit*, ſome read *fecerit*, *i.* who made the ſaid water.

A effect, if togither with the bloud of the said cocke, they be but laid under ones bed. If one plucke the haires out of a mules taile while the stallion covereth her, and bind the same togither in a wreath or knot, and apply them to the legs or loins during the act of generation, they will cause (women) to conceive whether they will or no. Whosoever maketh water upon the very place where a dog hath lift up his leg and pissed, so as both urines be mingled togither; folke say, hee shall find himselfe thereby more unlustie to the worke of *Venus*. A wonderfull thing it is (if it be true) which they report likewise of the ashes of a star-lizard or Stellion; that if the same be enwrapped within some lint or linnen rag, & held in the left hand, it stirreth up the heat of lust; but shift the same into the right hand, it will coole one as much. Moreover, that if one put under the pillow where a woman laieth her head, a few flockes, or locke of wooll loked well in batts bloud, it will
B set her on to desire the companie of a man; or if she doe take a gooses tongue either in meat or drinke. The old skin or slough that snakes doe cast off in the Spring, whosoever drinketh in his ordinarie drink, it will kill all the vermin or lice of the bodie within three daies: so doth the whey of milke after the cheese is gathered, if one drinke the same with a little salt. If the braines of a weazill bee put into the rendles or rennet that goeth to the making of cheese, they say that the cheese so made, shall neither corrupt all summer long, nor be eaten by the mouse. The ashes of the same weazill given to chickens or young pigeons among the past that is made for to feed them, secureth them from the weazill. Furthermore, it is said, that if a batt be tied unto a horse or mare or such labouring beasts that are pained in their staling, they shall soone have an end of that griefe and impediment: if they have the wringing of the guts, or be troubled with the bots,
C there will ensue ease of their paine, presently upon the making three turnes or compasses round about their shap and naturall parts with a stockedove. But see a marveilous matter! the dove being let goe, dieth forthwith; and the beast immediatly is delivered from paine. Moreover, if you would know a remedie against drunkennesse, marke this experiment; Give for three daies togither unto great drunkards the eggs of an owle continually in their wine, they will take a loathing thereto and forbeare drinking. Whosoever taketh the lights of a mutton rosted, and eateth the same before he sit downe to drinking, shall not be overtaken or drunken, how freely soever hee powreth downe the wine. The ashes of swallowes bills incorporat with myrrhe, will secure any man from drunkennesse, and cause him to beare his drinke well, in case the wine that hee drinketh be spiced therewith: And *Horus* king of the Assyrians, devised first this receit against drun-
D kennesse.

Over and besides all this, there be many other singular properties behind, worthie to be noted, which are attributed unto sundrie beasts, and do properly pertain to this present treatise handled in this booke: for these magicians tell us of a certaine bird in Sardinia called Gromphæna, like unto a crane, but I beleeve verely that the Sardinians at this day know not what bird it is. Within the said Island and province, there is a beast called * Ophion, which in haire only resembleth a stag, but in no place els doth it breed: and the very same authors have told us of another by the name of Situlugus, but they set not downe in writing either the description what manner of beast it should be, nor the place where it should breed. I doubt not verely but such sometime there were, considering that they have shewed divers medecines that they do afford. And *M. Ci-*
E *cero* writeth of a beast named Byturos, which gnaweth the vines in Campania.

* A Muffle, as *Munster* taketh it.

CHAP. XVI.

Straunge wonders reported of certaine beasts.

THere remaineth yet certain wonderfull things to be spoken of, depending upon those brute creatures, of which I have treated alreadie: namely, that whosoever have about them the secondine of a bitch, that is to say, the skin wherein her whelps lay within her belly; or hold in their hands either the haire or dung of an hare, no dogs will barke at them whersoever they come. Also that there be a kind of gnats called Muliones, which live not above a day. Moreover,
F that as many as have about them the bill of a woodspeck when they come to take hony out of the hive, shall not be stung by bees: againe, let a man give unto swine among their meat, or in a mortcell of past or bread, the brains of a raven, they will follow him whithersoever he goeth. Furthermore, that if one be strewed with the dust wherein a mule hath wallowed & rumbled her selfe, hee shalbe well cooled in love, how amorous soever he were before. Over & besides, take a rat and cut

out his ſtones, and ſo let him goe againe, hee will make all other rats to run away. Make a maſh or drench of a ſnakes skin, ſalt, red wheat called Far, with ſome wild running thyme, ſtamped all together, in one and the ſame day; put all into wine and convey the ſame into the throat of a cow or ox, about the time that grapes begin to ripen upon the vine, the ſaid beaſts will ſtand to health for a whole yeere after: or give them young ſwallows, and cauſe them to let the ſame downe their bodie in ſome paſt or bread at three ſeverall times. Gather the duſt together out of the place where you ſee that a ſnake hath gone and made a tract, fling the ſame upon a ſwarm of bees, they ſhall returne againe to their hive. Tie up the right ſtone or cullion of a ram, he ſhall get none but ram-lambs. And looke whoſoever have about them the ſtrings or ſinewes taken from the wings and leggs of a crane, they ſhall not be tired and faint in any labour that they take. If you would have mules not to winſe and fling out with their heels, give them wine to drinke. Laſt of all, I cannot overpaſſe one notable and memorable example as touching the houſe of a mule: when *Antipater* ſhould ſend the venemous water of the fountaine Styx for to poiſon king *Alexander* the Great, hee could meet with no matter that would hold this poiſon, without piercing and running through it, but onely the houſe of a mule: and to the knowledge hereof he came, by the direction of *Ariſtotle* the philoſopher, who deviſed a cup to be made thereof. A foule ſtaine and blot of *Ariſtotles* name, for beeing privie to ſuch vilanie, and ſetting it forward as hee did. Thus much of Land-creatures: it remaineth now to returne againe to thoſe of the Waters, and their vertues in phyſicke.

THE XXXI. BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

¶ The Proëme.

CHAP. I.

The medicinable vertues of creatures living in water. The admirable nature of waters.

NOw followeth the diſcourſe of water-beaſts, and how beneficiall they be unto us in regard of phyſicke: wherein verely dame Nature (the mother and workemiſtreſſe of all things) ſheweth how little idle ſhe is, not ceaſing even there alſo by her continuall operations to make knowne her wonderfull power, among the waves and ſurging billows, amid the reciprocall tides of the ſea, ebbing and flowing in their alternative turns; yea and in the ſwift courſe and ſtreames of great rivers. And verely, to ſay a truth and ſpeake as it is, there is no part of the world wherein the might and majeſtie of Nature more appeareth, than in the waters: for this one Element ſeemeth to rule and commaund all the reſt. Waters devoure and ſwallow up the earth: waters quench and kill the flames of fire: they mount up aloft into the aire, and ſeeme to challenge a ſeignorie and dominion in the heavens alſo; whiles by a thick ſeeling and floore as it were of clowds, cauſed by the dim vapours ariſing from them, that vitall ſpirit which giveth life unto all things, is debarred, ſtopped,

A ſtopped,and choked. And what might the reaſon els be of thunders and lightnings flaſhing and breaking forth in that violence, and cauſing ſuch troubles and broils, as if the world were at war within it ſelfe? And can there bee any thing more woonderfull and miraculous, than to ſee the waters congealed above in the aire, and ſo to continue pendant in the skie? And yet as if they were not contented to have riſen thus to that exceeding heigth, they catch and ſnatch up with them into the upper region of the aire,a world of litle fiſhes:otherwhiles alſo they take up ſtones, and charge themſelves with that ponderous and weightie matter which is more proper to another Element. The ſame waters falling downe againe in raine, are the verie cauſe of all thoſe things here below which the Earth produceth and bringeth forth. And therefore conſidering the woonderfull nature thereof,and namely,how the corne groweth upon the ground,how trees
B and plants doe live, proſper, and fructifie by the means of waters, which firſt aſcending up into the skie,are furniſhed from thence with a lively breath,and beſtowing the ſame upon the herbs, cauſe them to ſpring and multiply; wee cannot chuſe but confeſſe, that for all the ſtrength and vertue which the Earth alſo hath, ſhee is beholden to the Waters, and hath received all from them. In which regard,above all things,and before I enter into my intended diſcourſe of Fiſhes and Beaſts living in this Element, I meane firſt to ſet downe in generalitie the marveilous power aud properties of water it ſelfe, and to illuſtrat the ſame by way of ſundrie examples: for the particular diſcourſe of all ſorts of waters,what man living is able to performe?

Chap. ii.

C

The diverſitie of waters: their vertues and operations medicinable: and other ſingularities obſerved therein.

THere is in manner no region nor coaſt of the earth,but you ſhall ſee in one quarter or other waters gently riſing and ſpringing out of the ground here and there, yeelding fountains in one place cold,in another hot; yea and otherwhiles there may be diſcovered one with another neare adjoyning: as for example, about * Tarbelli a towne in Guienne, and the Pyrenæan hills, there do boile up hot and cold ſprings,ſo cloſe one unto the other,that hardly any diſtance can be perceived between. Moreover, ſources there be, which yeeld waters neither cold nor hot but luke-warme, and the ſame verie holeſome and proper for the cure of many diſeaſes; as if Na-
D ture had ſet them apart for the good of man onely,and no other living creature beſide. To theſe fountains ſo medicinable,there is aſcribed ſome divine power, inſomuch as they give name unto ſundrie gods and goddeſſes,and ſeeme to augment their number by that means: yea & otherwhiles great towns and cities carrie their names: like as Puteoli in Campaine; Statyellæ in Liguria; Aquæ Sextiæ in the province of Narbon or Piemont: but in no countrey of the world is there found greater plentie of theſe ſprings, and the ſame endued with more medicinable properties, than in the tract or vale Baianus within the realm of Naples, where you ſhall have ſome hold of brimſtone, others of alume; ſome ſtanding upon a veine of ſalt, others of nitre; ſome reſembling the nature of Bitumen, and others againe of a mixt qualitie, partly ſowre and partly ſalt. Furthermore, you ſhall meet with ſome of them, which naturally ſerve as a ſtouph or hot-
E houſe; for the very ſteeme and vapour onely which ariſeth from them, is holeſome and profitable for our bodies: and thoſe are ſo exceeding hot, that they heat the bains, yea and are able to make the cold water to ſeeth and boile again which is in their bathing tubs: as namely, the fountaine Poſidianus within the foreſaid territorie Bajanus, which name it tooke of one *Poſidius*, a ſlave ſometime,and enfranchiſed by *Claudius Cæſar* the Emperour. Moreover, there be of them ſo hot, that they are able to ſeeth an egg or any other viands or cates for the table. As for the Licinian ſprings, which beare the name of *Licinius Craſſus*, a man may perceive them to boile and reeke againe, even out of the very ſea. See how good Nature is unto us,who amid the waves and billows of the ſea,hath affourded healthfull waters! But now to diſcipher their vertues in phyſick according to their ſeverall kinds: thus much in generalitie is obſerved in theſe bathes, That they
F ſerve for the infirmities of the ſinews,for gout of the feet, and ſciatica. Some more properly are good for diſlocations of joints,and fractures of bones: others have a propertie to looſen the belly and to purge: and as there be of them which heale wounds and ulcers,ſo there are againe that more particularly be reſpective to the accidents of the head and ears: and among the reſt, thoſe which beare the name of *Cicero* and be called Ciceronianæ,be ſoveraign for the eies. Now there

* Some thinke Bajon in Fraunce.

is a memorable manour or faire houſe of plaiſance, ſituat upon the ſea ſide in the verie high way G
which leadeth from the lake Avernus to the cittie Puteoli; much renowmed for the grove or wood about it, as alſo for the ſtately galleries, porches, allies, and walking places adjoyning thereunto, which ſet out and beautifie the ſaid place verie much: this goodly houſe, *M. Cicero* called Academia, in regard of ſome reſemblance it had unto a colledge of that name in Athens, from whence he tooke the modell and patterne: where hee compiled thoſe books of his which carrie the name of the place, and be called * *Academicæ quæſtiones:* and there he cauſed his monument or ſepulchre to be made, for the perpetuitie of his memoriall; as who would ſay, he had not ſuffi-
ciently immortalized his name throughout the world, by thoſe noble works which he wrote and commended unto poſteritie. Well, ſoone after the deceaſe of *Cicero*, this houſe and forreſt both fell into the hands and tenure of * *Antiſtius Vetus*; at what time, in the very forefront as it were H
and entrie thereof, there were diſcovered certaine hot fountains breaking and ſpringing out of the ground, and thoſe paſſing medicinable and holeſome for the eyes. Of theſe waters, *Laurea Tullus* (an enfranchiſed vaſſall of *Cicero*) made certaine verſes, and thoſe carying with them ſuch a grace or majeſtie, that at the firſt ſight a man may eaſily perceive how affectionat and devote he was to the ſervice of his lord and maſter: and for that the ſaid Epigram is worthie to be read not only there, but alſo in every place, I will ſet it downe here as it ſtandeth over thoſe bains to be ſeen, in this Decaſtichon.

* Like as *Tuſculanæ quæſtiones*, which hee made in Tuſculano, *i.* a ferm or houſe that he had in Tuſculum.

* A noble man of Rome, Conſull with *D. Lælius Balbus, anno ab urbe condita* 747.

Quo tua, Romanæ vindex clariſsime linguæ,
Sylva loco melius ſurgere juſſa viret, I
Atque Academiæ celebratam nomine villam
Nunc reparat cultu ſub potiore Vetus
Hic etiam apparent lymphæ non ante repertæ,
Languida quæ infuſo lumina rore levant.
Nimirum locus ipſe ſui Ciceronis honori
Hoc dedit, hac fontes cum patefecit ope,
Vt quoniam totum legitur ſine fine per orbem,
Sint plures, oculis quæ medeantur, aquæ.

O prince of Romane eloquence, loe here thy Grove in place
How greene it is, where planted firſt it was to grow apace: K
And *Vetus* now, who holds thy houſe, Faire Academie hight,
Spares for no coſt, but it maintains and keeps in better plight.
Of late alſo, freſh fountains here breake forth out of the ground,
Moſt holeſome for to bath ſore eyes, which earſt were never found.
Theſe helpfull ſprings, the Soile no doubt, preſenting to our view,
To *Cicero* her auncient lord, hath done this honour due;
That ſince his books throughout the world are red by many a wight,
More waters ſtill may cleare their eyes, and cure decaying ſight.

In the ſame tract of Campaine, and namely toward Sinueſſa, there be other fountains called L
Sinueſſan waters: which have the name not only to cure men of lunacie and madneſſe, but alſo to make barraine women fruitfull and apt to conceive. In the Iſland Ænaria there is a ſpring which helpeth thoſe that bee troubled with the ſtone and gravell: like as another water which they call Acidula, within foure miles of Teanum in the Sidicins country, & the ſame is actually cold: alſo there is another of that kind about Stabij, called by the name of Dimidia: like as in the territorie of Venafrum, that which proceedeth from the ſource Acidulus, and gave name to the foreſaid water Acidula. The ſame effect they find who drinke of the lake Velinus, for it breaketh the ſtone. Moreover, *M. Varro* maketh mention of ſuch another fountaine in Syria at the foot of the mountaine Taurus. So doth *Callimachus* report the foreſaid operation of the river Gallus in Phrygia: howbeit they that take of this water muſt keep a meaſure, for otherwiſe it diſtracteth their under-
ſtanding and driveth them beſides their right wits: which accident hapneth to thoſe (ſaith *Cteſias*) M
who drink of the red fountain (for ſo it is called) in Æthiopia. As touching the waters nere Rome called Albulæ, they are known to heale wounds: theſe waters are neither hot nor cold: but thoſe which go under the name of Cutiliæ in the Sabins country, are exceeding cold, and by a certain

mordi-

A mordication that they have, ſeem to ſuck out the humors & ſuperfluous excrements of the body; being otherwiſe moſt agreeable for the ſtomacke, ſinewes, and generally, for all parts. There is a fountain at Theſpiæ, a citie in Bœotia, which doth great pleaſure unto women that would faine have children; for no ſooner drink they of the water, but they are readie to conceive: and of this propertie is the river Elatus in Arcadia. In which region alſo the Spring Linus yeeldeth water, which if a woman with child do drink, ſhe ſhall go out her full time & not be in danger to ſlip an unperfect birth. Contrariwiſe, the river Aphrodiſium in Pyrrhæa, cauſeth barrenneſſe. The lake or meere *Alphion is medicinable, and cureth the foule Morphew. *Varro* mine author maketh mention of one *Titius*, a man of good worth, and ſometimes lord Prætour, who was ſo beraied and peinted all over his face with ſpots of Morphew, that he looked like an image made of ſpot-
B ted marble. Cydnus, a river of Cilicia, hath a vertue to cure the gout; as appeareth by a letter written from *Caſſius* the Parmezan unto *M. Antonius*. Contrariwiſe, the waters about Trœzen are ſo bad, that all the inhabitants are thereby ſubject to the gout and other diſeaſes of the feet. There is a citie in *Gaule named Tungri, much renowned for a noble *fountaine, which runneth at many pipes: a ſmack it hath reſembling the ruſt of yron, howbeit this taſt is not perceived but at the end and looſe only: This water is purgative, driveth away tertian agues, expelleth the ſtone and cureth the ſymptomes attending therupon: Set this water over the fire or neare unto it, you ſhall ſee it thicke and troubled; but at the laſt, it looketh red. Betweene Puteoli and Naples, there be certaine wels called Leucogæi, the water wherof cureth the infirmities of the eies, and healeth wounds. *Cicero* in his booke entituled Admiranda, *i.* Wonders; among other admirable things
C hath raunged the moores or fens of Reate; for that the water iſſuing from them, hath naturally a propertie from all others, to harden the houſes of horſes feet. *Eudicus* reporteth, That in the territorie of Heſtiæa, a citie in Theſſalie, there bee two ſprings, the one named Ceron, of which, as many ſheepe as drinke, prove black: the other Melas, the water whereof, maketh black ſheep turn white: let them drink of both waters mingled together, they will prove flecked and of divers colours. *Theophraſtus* writeth, That the river Crathis in the Thurians countrey, cauſeth both kine and ſheepe as many as drinke thereof, to looke white: wheras the water of Sybaris giveth them a blacke hew. And by his ſaying, this difference in operation is ſeene alſo upon the people that uſe to drink of them: for as many as take to the river Sybaris, become blacker, harder, and withall of a more curled hair than others: contrariwiſe the drinking of Crathis cauſeth them to look white, to
D be more ſoft skinned, & their buſh of haire to grow at length. Semblably in Macedonie they that would have any cattell to grow white, bring them to drinke at Aliacmon the river: but as many as deſire they ſhould be brown or blacke, drive them to water at Axius. The ſame *Theophraſtus* hath left in writing, That in ſome places there is no other thing bred or growing but brown & duskiſh, inſomuch as not only the cattell is all of that leere, but alſo the corn upon the ground, and other fruits of the earth; as among the Meſſapians. Alſo, at Luſæ, a city of Arcadia, ther is a certain well, wherin there keepe ordinarily land-mice. As for the river Aleos, which paſſeth through Erythræ, it maketh them to grow hairie all their bodies over as many as drinke thereof. In Bœotia likewiſe, neer unto the temple of the god *Trophonius* & hard by the river Orchomenas, there be two fountains; the one helpeth memorie, the other cauſeth oblivion, whereupon they *took their names. In
E Cilicia, hard at the town Creſcum, there runs a river called *Nus: and by the ſaying of *M. Varro*, whoſoever drinke thereof, ſhall find their wits more quick, and themſelves of better conceit than before. But in the Iſle *Chios there is a ſpring, which cauſeth as many as uſe the water to bee dull and heavie of ſpirit. At Zamæ in Affrick, the water of a certain fountain, maketh a cleare & ſhrill voice. Let a man drinke of the lake Clitorius, he ſhall take a miſliking and loathing of wine, ſaith *M. Varro*. And yet *Eudoxus* and *Theopompus* report, That the water of the fountaines beforeſaid make them drunke that uſe it. *Mutianus* affirmeth, That out of the fountain under the temple of father *Bacchus*, within the Iſle Andros, at certaine times of the yeare for ſeven daies together, there runneth nothing but wine; inſomuch as they call it the wine of god *Bacchus*: howbeit, re-
F move the ſaid water out of the proſpect and view (as it were) of the ſaid temple, the taſt will turne to be wateriſh againe. *Polyclytus* writeth of a certaine fountaine of Cilicia neare unto the cittie Soli, which yeeldeth an uncteous or oleous water, that ſerveth in ſtead of oile. *Theophraſtus* reporteth the ſame of another fountain in Æthyopia, which hath the like quality. And *Lycus* ſaith, That among the Indians there is a fountaine, the water whereof is uſed in lampes to maintaine light. And the like is reported of another water about Ecbatanæ [the capitall cittie of Media.]

Theopompus

*Otherwiſe called *Anger*: but this name it tooke of *Alphi*, which ſignifieth a kind of white Morphew.

*He meaneth the Low-countries, called ſometime Belgica Gallia.

*Called now the bath of Spaw or Spaw.

*For the former is called μνήμη, or μνημοσύνη, the later λήθη.

*Quaſi νῶς, wit and underſtanding.

*In Chio.

Theopompus writeth, That neare to Scotusa [in Macedonie] there is a lake, the water whereof is soveraigne for the healing of wounds. Moreover, king *Iuba* hath left in writing, That in the Troglodites countrey there is a lake, for the hurtfull water that it beareth, called the Mad-lake, which thrice a day becommeth bitter and salt: and as many times for it turneth to bee fresh and sweet: which course it keepeth also in the night season, breeding otherwise white serpents twentie cubits long, of which it is crawling full. The same prince (mine Author) reporteth, That in Arabia there is a spring boiling out of the ground with such a force, that it scorneth and checketh anie thing that is throwne into it, and cannot be kept downe with any weight whatsoever. *Theophrastus* maketh mention of the fountaine Marsyas in Phrygia, neare unto the towne Celænæ, which casteth up great stones. And not farre from it bee two other springs *Clæon and Gelon, so called by the Greekes for the contrarie effects which they worke. At Cyzicum there is a fountaine of *Cupid*, and whosoever drinke of the water thereof, shall lay aside and forget all affection of love, as *Mutianus* dooth both report and beleeve. At Cranon there is a hote spring, and yet not so boiling as many others be: the water thereof, if it be put into a bottle or flaggon of wine, will maintain the heat thereof for three daies together, that it shall drinke hote. In Germanie beyond the river Rhene, there be waters so hote, that whosoever drinketh thereof, shall sensibly find the heat in his bodie three daies after: The springs that yeeld this water be called Mattiaci. This peculiar propertie besides hath this water, that about the edges and brims thereof there engender pumish stones. Now if any man suppose some of these straunge reports to be incredible, let him learn & know, that in no part of the world Nature hath shewed more admirable workes than in this element of Water. And albeit in the beginning of this mine hystorie I have written in ample manner of many a wonder observed in the waters, yet somewhat remaineth still to bee related. For *Ctesias* saith, That the Indians have a lake or poole, wherein nothing will swim, but all sinkes to the bottome. And *Cælius* also our countreyman avoucheth, That the leaves which fall into the lake Avernus will settle downeward and not flote above. And *Varro* avoucheth moreover, That what birds soever flie over it, or approch the aire and breath thereof, they will die presently. Contrariwise, in Apuscidamus a lake of Affricke, nothing goes downe, but all swims aloft. The like dooth *Apion* report of Phinthia, a fountaine in Sicilie: as also of a lake in Media, and namely the pit or well of *Saturne*. The fountaine Limyra is wont ordinarily to chaunge his seat, and to passe into places adjoining, but never for nought, presaging alwaies thereby some straunge accident to ensue. And wonderfull it is, that the fishes therein should follow and doe the like. Now when this water is thus remooved, the inhabitants of the countrey, desirous to know the issue of things to come, repaire thither as to an Oracle, and seeke to be resolved by the foresaid fishes, and therwith offer unto them some meat: if they come unto it and swim away withall, it is a good token, & this they take for an affirmative answere, as if they said, Yea, to their demaunds: but in case they refuse the meat and flurt it away with their tailes, they collect the contrary, & this is their flat Nay. There is a river in Bithynia called Olachas, running close unto Briazus (which is the name both of a temple, and also of the god therein honoured) the water whereof will discover and detect a perjured person: for if he that drinketh thereof, feele (as it were) a burning fire within his bodie, take him for a false forsworne villaine. Furthermore, in Cantabria or Biscay the fountains of the river Tamaricus, are endued with a secret vertue to presage and foretell future events: and three heads or sources there be of them, eight foot distant one from another: they meet all at length in one channell, and maintain that great and mightie river Tamaricus. Howbeit, twelve times every day, yea, and otherwhiles twentie times they are drie, and have no shew at all or apparence of water; notwithstanding there be another fountaine or well neare unto them, that yeeldeth plenty of water, and never giveth over running. And this is held for an ominous and fearefull presage, if when folke are desirous to see them, they seeme not to run at all: as it was seene of late daies by *Lartius Licinius*, sometime lord Pretour and afterwards Lieutenant Generall under the Consuls. For within a seven-night after a great misfortune happened unto him. In Iurie there is a river which every Sabboth day is drie. Thus much of waters medicinable and miraculous, and yet not simply hurtfull. Contrariwise, there be others of as wonderfull a nature, but daungerous they are and deadly withall.

Ctesias writeth, That there is a fountaine in Armenia, breeding and bringing forth blacke Fishes: whereupon, as many as feed, are sure to die for it immediatly. I have heard the like reported of such daungerous fishes about the head of the river Danubius, untill a man come to a fountaine

*ἀπὸ τῦ κλαίειν, i. flere, καὶ γελᾶν, i. Risu. For the one causeth weeping, the other moveth to laughter.

A taine which presently dischargeth it selfe into the channell of the said rocke; for beneath that place such fishes goe not, nor enter lower into the river. And hereupon the fountaine is by the generall voice of people taken to bee the very source and head of Danubius aforesaid. The selfe-same accident as touching fish, is reported by a poole in Lydia, called the poole of the nymphes. In Arcadia neare unto the river Pheneus, there floweth a water out of the rockes called Styx, which is present death to as many as drinke thereof, as heretofore I have shewed: And *Theophrastus* saith moreover, That in this water there be certaine small fishes (a thing that a man shall never see in any other venomous fountaines) and those likewise are as deadly as the water. *Theopompus* writeth, That in Thracia there bee waters about the place called Chropsos, which kill those that drinke thereof. And *Lycus* maketh report of another fountaine in the Leontines countrey,
B wherof as many as drinke die within three daies. *Varro* hath left in writing, That neare to the hill Soracte there is a fountaine foure foot large, which at the rising of the Sunne overfloweth like boiling water: but the birds that have tasted of the water die presently, and are there to be seene lying dead. For this secret mischeefe there is besides in many of these waters, that they are faire and cleare to see too, and thereby seeme to allure both man and beast to drinke thereof, for their owne bane and destruction: as we may see by Nonacris in Arcadia; for surely this fountaine giveth no suspition at all, whereby we should mistrust a venomous qualitie; and yet some are of opinion, That the hurt which commeth thereby, proceedeth from excessive cold; and they ground their reason upon this, That the water issuing out of it into riverets and rils, will congeale and grow to a stonie substance. It fareth otherwise about the vale of Tempe in Thessalie, where the
C water of a certaine fountaine is fearefull to see too, and there is no man but abhorreth the sight thereof, besides the corrosive qualitie that (by folks saying) it hath, to fret and eat into brasse and yron: the best is, that (as I have shewed before) it runneth not farre, and the course that it holdeth is but short. But wonderfull it is, that a certaine wild Carob should environ this source round about with his roots, and the same continually beare purple flowers, as it is reported to doe. Also, in the very brinke and edge of this fountaine there is another hearbe of a kind by it selfe, which abideth fresh and greene from one end of the yeare to another. In Macedonie, not far from the tombe of *Euripides* the Poet, there be two rivers run together, the one yeeldeth water most holesome for to be drunke: the other is as noisome and deadly. Neer unto Perperenæ, a town in Troas, there is a spring, the water whereof giveth a stonie coat or crust to all the earth that it either o-
D verfloweth or runneth by: of which nature are the hot waters issuing out of a fountaine neare Delium in Eubœa; for looke what way soever the river runneth, you shall see the stones to grow still in height. About Eurymenæ, which is in Thessalie, there is a well, cast into it any chaplets or guirlands of flowers, they will turne into stones. There runneth a river by Colossi, a citie in Phrygia, into which if you throw brickes or tiles that be raw and unbaked, you shall take them foorth againe as hard as stones. Within the mines of the Isle Scyros there is a river, which converteth into stone all the trees that it runneth by or toucheth, as well the boughs as the bodies. In the famous and renowned caves called Corycia, all the drops of water that distill from the rocke, turne to bee as hard as stones: And no marvell, for at Meza in Macedonie, a man shall see the drops of water become stone, as they hang to the very vaults of the rocke, much like to ysickles
E from the eaves of houses in Winter time: wheras at Corycum abovenamed, the said drops turn into stone when they are fallen downe, and not before. In certaine caves they are to be seene converted into stone both waies, and some of them are so big, as they serve to make columnes and pilastres of, and those otherwhiles of diverse colours to the eye: as may be seene in the great cave of Phausia, which is within the Chersonese of the Rhodians. Thus much may suffice by way of examples, to shew the varietie of waters with their sundrie vertues and operations.

Chap. iii.

The qualitie that is in waters. How a man may know which be good and holesome from such as be naught and unholesome.

F

MVch question there is & controversie among Physicians, What kind of water is best? and yet with one generall consent they condemne, and that justly, all dead and standing waters; supposing those that run to be better: for it standeth with good reason, that the very agitation and beating upon the banks as they beare streame in their current, maketh them more subtile,

ſubtile, pure, and cleare, and by that meanes they get their goodneſſe. Which conſidered, I marveile verie much at thoſe who make moſt account of the *water gathered and kept in ceſternes: But they ground their opinion upon this reaſon, becauſe raine water is of all others lighteſt, as conſiſting of that ſubſtance which was able to riſe and mount up aloft, and there to hang above in the aire. Which is the cauſe alſo, that they preferre Snow water before that which commeth downe in ſhowers: and the water of yce diſſolved, before the other of melted Snow; as if the water were by yce driven together and reduced to the utmoſt point of fineneſſe. They collect hereby, that theſe waters, to wit, raine, ſnow, and yce, bee all of them lighter than thoſe that ſpring out of the earth: and yce among the reſt farre lighter than any water, in proportion. But this opinion of theirs is to bee reputed as erronious, and for the common good and profit of mankind to be refuted: For firſt and formoſt, that levitie whereof they ſpeake, can hardly or unneath bee found and knowne by anie other meanes than by the ſence and feeling of the ſtomacke: for if you goe to the weighing of waters, you ſhall perceive little or no difference at all in their poiſe. Neither is it a ſufficient argument to proove raine water to be light, becauſe it aſcendeth on high into the aire, for wee may ſee ſtones likewiſe drawne up into the clouds: and beſides, as the raine falleth downe againe, it cannot chuſe but be infected with the groſſe vapours of the earth. Whereby it commeth to paſſe, that wee find raine water ordinarily to bee moſt charged and corrupted with ordure and filthineſſe: and by reaſon thereof it heateth moſt quickly, and corrupteth ſooneſt. As for ſnow and yce, that they ſhould bee thought to be compoſed of the moſt ſubtile parts of this Element, and yeeld the fineſt water, I wonder much, conſidering the neare affinitie which is betweene them and haile, which might induce us alſo to thinke the ſame of it: but all men confeſſe and hold, that the ſame is moſt peſtilent and pernicious for to bee drunke. Moreover, there are amongſt them not a few, who contrarie unto the opinion of other Phyſicians their fellowes, affirme flatly and confidently the water of ſnow and yce to bee the unwholeſomeſt drinke that is, for that all the puritie and fineneſſe thereof hath beene drawne and ſucked out. And in verie truth, wee find it by experience, that any liquour whatſoever dooth deminiſh and conſume greatly by beeing frozen or congealed into an yce. Wee ſee beſides, That over-groſſe and foggie deawes breed a kind of ſcurfe or ſcab in plants: white froſts burne and ſendge them: and both of theſe, the hore froſt as well as the deaw, proceed from the ſame cauſes in a manner that ſnowes doe. Certes, all Philoſophers agree in this one point, That raine water putrifieth ſooneſt of anie other, and leaſt while continueth good in a ſhip, as ſaylers know full well. Howbeit, *Epigenes* avoucheth and affirmeth, That the water which hath beene ſeven times putrified and as often purified againe, is ſubject no more unto putrifaction. And as for ceſterne waters, the Phyſicians alſo themſelves confeſſe, That they breed obſtructions and ſchirrhoſities in the bellie, yea, and otherwiſe bee hurtfull to the throat. As alſo, that there is not anie kind of water whatſoever, which gathereth more mud or engendereth more filthie and illfavoured vermine than it dooth. Neither followeth it by and by, that all great river waters indifferently are the beſt: no more than thoſe of any brooke, or the moſt part of ponds and pooles are to bee counted and eſteemed moſt wholeſome. But of theſe kinds of water wee muſt conclude and reſolve with making diſtinction, namely, That there be of everie ſort thereof thoſe which are ſingular and very convenient, howbeit, more in one place than in another. The kings and princes of Perſia bee ſerved with no other water for their drinke but from the two rivers, Choaſpes and Eulæus onely: And looke how farre ſoever they make their progreſſe or voyage from them two rivers, yet the water thereof they carrie with them. And what might the reaſon bee thereof? Certes, it is not becauſe they bee rivers which yeeld this water, that they like the drinke ſo well: for neither out of the two famous rivers, Tygris and Euphrates, nor yet out of manie other faire and commodious running ſtreames doe they drinke. Moreover, when you ſee or perceive anie river to gather abundance of mud and filth, wote well, that ordinarily the water thereof is not good nor holeſome: and yet if the ſame river or running ſtreame bee given to breed great ſtore of yeeles, the water is counted thereby wholeſome and good ynough. And as this is a token of the goodneſſe, ſo the woormes called *Tineæ*, engendered about the head or ſpring of any river, is as great a ſigne of coldneſſe. Bitter waters of all others bee moſt condemned: like as thoſe alſo which ſoone follow the ſpade in digging, and by reaſon that they lie ſo ebbe, quickly fill the pit. And ſuch be the waters commonly about Troezen.

i. Rain water.

* Which ſome take for Sows.

A Troezen. As for the nitrous, brackish, and * salt waters, found among the desarts; such as travaile through those parts toward the red sea, have a devise to make them sweet and potable within two houres, by putting parched Barley meale into them; and as they drinke the water, so when they have done, they feed upon the said Barly groats, as a good and holesome gruell. Those spring waters are principally condemned which gather much mud and settle grosse in the bottome: those also which cause them to have an ill colour who use to drinke thereof. It skilleth also very much to marke if a water staine any vessels with a kind of greene rust; if it bee long before, pulse will be sodden therein; if being poured upon the ground, it bee not quickly sucked in and drunke up; and lastly, if it furre those vessels with a thicke crust wherein it useth to be boiled: for all these be signes of bad water. Over and besides, it is a fault in water, not onely to stinke, but also
B to have any smacke or tast at all, yea, though the same bee pleasant and sweet ynough, and enclining much to the rellice of milke, as many times it dooth in diverse places. In one word, would you know a good and holesome water indeed? Chuse that which in all points resembleth the air as neare as is possible. At Cabura in Mesopotamia there is a fountain of water, which hath a sweet and redolent smell: setting it aside, I know not any one of that qualitie in the whole world again: But hereto there belongs a tale, namely, That this Spring was priviledged with this extraordinarie gift, because queene *Iuno* (forsooth) sometimes bathed & washed her selfe therein. For otherwise, good and holesome water ought to have neither tast nor odour at all. Some there bee who judge of their holesomenesse by the ballance, and they keepe a weighing and poising of waters one against another: But for all their curiositie, they misse of their purpose in the end: for seldom
C or never can they find one water lighter than another. Yet, this devise is better and more certain, namely, to take two waters that be of equall measure and weight: for looke whether of them heateth and cooleth sooner, the same is alwaies the better. And for to make a triall hereof, lade up some seething water in a paile or such like vessell, and set the same downe upon the ground out of your hand, to ease your arme of holding it hanging long in the aire; and if it bee good water, they say it will immediatly of scalding hot become warme onely and no more. Well, what waters then, according to their sundrie kinds in generalitie, shall we take by all likelyhood to bee best? If we goe by the inhabitants of cities and great townes, surely, well-water or pit water (I see) is simply the holesomest: But then such wels or pits must bee much frequented, that by the continuall agitation and often drawing therof, the water may be more purified, and the terrene substance passe
D away the better by that meanes. And thus much may suffice for the goodnes of water, respectively to the health of mans bodie.

But if wee have regard to the coldnesse of water, necessarie it is that the well should stand in some coole and shadowie place not exposed to the Sunne, and natheless open to the broad aire, that it may have the full view and sight (as it were) of the skie. And above all this, one thing would bee observed and seene unto, that the source which feedeth it, spring and boile up directly from the bottome, and not issue foorth of the sides: which also is a maine point that concerneth the perpetuitie thereof, and whereby we may collect that it will hold still, and bee never drawne drie. And this is to be understood of water cold in the owne nature. For to make it seeme actually cold to the hand, is a thing that may be done by art, if either it bee forced to mount aloft, or fall from
E on high, by which motion and reverberation it gathereth store of aire. And verely, the experiment hereof is seene in swimming, for let a man hold his wind in, hee shall feele the water colder by that meanes. *Nero* the Emperour devised to boile water, and when it was taken from the fire to put it into a glasse bottle, and so to set it in the snow a cooling: and verely, the water became thereby exceeding cold to please and content his tast, and yet did not participat the grossenesse of the snow, nor draw any evill qualitie out of it. Certes, all men are of one opinion, That any water which hath been once sodden, is farre better than that which is still raw: like as, that after it hath been made hote, it will become much colder than it was before, which I assure you, came first from a most wittie and subtile invention. And therefore, if wee must needs occupie naughtie water, the only remedie that we have to alter the badnesse thereof, is to seeth it well, untill the one
F halfe be consumed. Now if a man desire to know the vertue and commoditie of cold water: First, it ordinarily stauncheth any flux of bloud, if it be cast upon the place. Also if one be not able to endure the heat in a baine or hote house, the best way to avoid this inconvenience, is to hold in his mouth cold water all the while. Moreover, many a man hath found by a very familiar experience,

* *Salsas.* Although some read *Salmacidas*, which be holden for waters that will effeminat those who drinke thereof. But such waters be impertinent to this place: neither do we read of the fountaine Salmacis to be in these desarts.

rience, That the coldeſt water in the mouth is not alwaies the coldeſt in the hand. And contrariwiſe, when it is exceeding cold without for to be felt, it is not ſo ſenſibly cold within to bee drunke. G

Of all waters in the world, that which we call here in Rome Martia, carieth the greateſt name by the generall voice of the whole citie, in regard both of coldneſſe and holeſomeneſſe. And verely we may eſteeme this water for one of the greateſt gifts that the gods have beſtowed upon our citie. In times paſt it was called Auffeia, and the very fountain from whence it commeth, Piconia. The head or ſource therof ariſeth at the foot of the utmoſt mountains of the Pelignians: it runneth through the Marſians country, and paſſing through the lake Fucinus, it tendeth (no doubt) even then directly toward Rome: but anone it is ſwallowed up within a hole under the ground, ſo as it is no more ſeene untill it ſhew it ſelfe againe in the territorie of the Tiburtines; from which H
place it is conveighed under vaults, and ſo caried through to Rome by arch-worke for the ſpace of nine myles. The firſt that began to bring this water to the citie, was *Ancus* Martius*, one of the Romane kings: afterwards, *Qu.* Martius Rex*, in his Pretorſhip finiſhed the ſaid worke: and when in proceſſe of time it was fallen to decay, *M. Agrippa* repaired it againe: who alſo brought the water named Virgo to the citie, which hath her head eight miles from Rome, in a certaine nouke or by-corner about two miles turning from the great port way leading to Prænеſte: Neare unto it runneth the river Herculaneus: but this water keepeth ſtill behind as though it fled from it, whereupon it tooke the name Virgo. Compare theſe two riverets together which are conveighed to Rome, you ſhall ſee the difference beforeſaid as touching the coldneſſe of waters: For looke how cold Virgo is to the hand, ſo much is Martia in the mouth. But long agoe have wee of I
Rome loſt the pleaſure and commoditie of theſe two rils, through the ambition and avarice of ſome great men, who have turned away theſe waters from the cittie, where they yeelded a publicke benefit to the Commonwealth; and derived them for their privat delight and profit into their owne manours and houſes in the countrey, for to water their gardens, and ſerve to other uſes.

*No marveile then if it were called Martia.

And here in this place I thinke it not impertinent to adjoine to this preſent Treatiſe, the maner and skill of ſearching and finding out waters. And firſt to ſpeake in generall tearmes: ſprings ordinarily bee found in valleyes, in the pitch or creſt of ſome little hill where it hath a fall and deſcent, or elſe at the foot of great mountaines. Many are of opinion, That in any tract whatſoever, that ſide or coaſt which regardeth the North is given to have water in it. And verely it were K
not amiſſe to ſhew how Nature diſporteth her ſelfe and worketh variably in this behalfe. Firſt a man ſhall never ſee it raine on the South ſide of the mountaines in Hyrcania, which is the reaſon, that on that part onely which lieth to the North they are given to beare wood, and bee full of forreſts. But Olympus, Oſſa, Pernaſſus, Apenninus, and the Alpes, bee repleniſhed with woods on all ſides, and are furniſhed with their ſprings and rivers every where. In ſome countries the hils bee greene, and watered on the South ſide onely. As for example, in Candie, the mountaines called * Albi: ſo that there is no heed to be taken by this, for the rule holdeth not alwaies. But to come now unto particulars. Looke where you ſee growing ruſhes, reeds, or the * hearbe whereof I made relation before, be ſure you ſhall find water underneath. *Item*, Where-
ſoever you find Frogs lying in any place upon their breaſts, make account of good ſtore of wa- L
ter there. As for the wild and wandering Sallow, the Aller tree, Agnus-Caſtus, or Yvie, they come up many times of their owne accord, in ſome low grounds where there is a ſettling or ſtay of raine water fallen from higher places: in ſo much, as they that goe by theſe ſignes to find ſome Spring, may be ſoone deceived. A ſurer aime yet by farre, is a miſt or exhalation, which a man may diſcover a farre off, a little before the Sunne-riſing. And for to ſpie it the better, ſome there bee who get up into an high place, and lay themſelves grovelong, with their chins touching the ground, and by that meanes diſcerne where any ſuch ſmoake or vapour ariſeth. There is another ſpeciall meanes beſides to find out waters, but knowne it is to thoſe onely who be skilfull and expert in this feat: For they that are guided by this direction to water, goe forth in the hoteſt ſeaſon of the yeare, and about the noonetide of the day to marke the reverberati- M
on of the Sunne beames in any place; for if this repercuſſion and rebounding appeare moiſt, and namely, when the face of the earth looketh drie and thirſtie, they make no doubt to find water there. But they had need to looke ſo intentive and wiſtly, that oftentimes their eyes ake

* Ἀλβὸς γῆ, i. White.

*To wit, wild Folefoot, *cap. 6 lib. 26*

and

A and be pained withall. For avoiding which trouble and inconvenience, ſome betake themſelves to other experiments; and namely, they dig a trench or ditch five foot deepe within the ground; the mouth whereof they cover all over with earthen veſſels of potters worke unbaked, or elſe with a barbars braſen baſon, well enhuiled: and withall a lampe burning: over all which, they make a little arch-worke of leaves and boughs, and mould thereupon. Now if they come within a while after to this place, and either ſee the earthen pots broken or wet, or perceive a dew or ſwet ſtanding upon the braſſe, or find the lampe aforeſaid gone out and yet no want of oile to maintaine light, or if they feele a locke of wooll which they hung within the trench to be moiſt, they aſſure themſelves they ſhall find water if they ſinke the pit deeper. Some there be, who for better aſſurance hereof, make a fire in the place, and burne it throughly; for then the veſſels aforeſaid, if
B they proove to be wet, give a more infallible hope of a ſpring. Moreover, the verie leire it ſelfe of the ſoile, if it be ſpotted with white ſpecks, or bee altogither of a reddiſh bright colour, promiſeth ſpring water to be underneath: for if the ground looke blacke, lightly the water will ſoon faile, if there bee any ſpring there found. If you chaunce to light upon a veine of potters cley + or chaulke, make account you ſhall meet with no ſpring there, ſinke as deepe as you will: and therefore workemen when they come to it, give over preſently: for a great regard they have to obſerve the chaunge of everie coat (as I may ſo ſay) of the earth as they digg, to wit, from the blacke delfe, untill they meet by degrees with the veins aforeſaid. Furthermore, it is to be noted, that the water which is found in cley grounds, is alwaies ſweet and potable; like as that which * *In Tophō.*
a ſtonie and grittie ſoile doth yeeld, is commonly colder than any other: and ſuch a kind of
C ground alſo, is allowable for the proofe of good waters; for it engendreth ſweet and holeſome water, light alſo of digeſtion and pure withall, by reaſon that as it paſſeth by a ſoft grit as it were through a ſtreiner, all the groſſeneſſe thereof it leaveth behind ſticking thereto. As for *thicke * *Sabulōſi.*
ſand and gravell, it affourdeth ſmall and ſlender ſprings, and thoſe not durable; beſides, the water will quickely gather mud. Ground given to beare * pebbles, or the groſſer ſort of gravell, * *Glarea.*
give us no ſecuritie that the ſprings therein will hold all the yeere long; howbeit, the water is verie good and pleaſant. The hard and compact gravell called the Male-gravell, and the ſand which ſeemeth full of blacke and burnt carbuncle ſtones, bringeth foorth holeſome waters, and the ſources be ſure and perdurable. But red ſtones yeeld the beſt ſimply, and thoſe that wee may be ſure will never give over and faile. And therefore when wee ſhall perceive the foot of a moun-
D taine ſtanding upon ſuch ſtone, or upon flint, wee may boldly reckon of holeſome and everlaſting ſprings; and this gift they have beſide, to be paſſing cold. Moreover, in digging or ſinking pits, marke this for an aſſured and infallible ſigne that you approach unto water; namely, if the earth appeare and ſhew moiſt more and more ſtill as you goe lower and lower: alſo if the ſpade enter more willingly, and goe downe with eaſe and facilitie. When pioners have wrought deepe under the ground, and then chaunce to meet with a veine of brimſtone or alume, the dampe will ſtop their breath and kill them preſently, if they take not the better heed: and therefore to foreſee and prevent this daunger, they uſe to let downe into the pit, a candle or lampe burning; for if it goe out, they may be ſure it hath met with the dampe. Therefore if pits be ſubject to the riſing of ſuch vapours, cunning and expert workemen make on either ſide of ſuch pits, both on
E the right hand and the left, certaine out-caſts, tunnels, or venting-holes, to receive thoſe hurtfull and daungerous vapours, whereby they may evaporat and breath forth another way. Otherwhiles it falleth out, that the aire which they meet with in digging verie low, doth offend the pioners, albeit there be no brimſtone or alume neare: but the readie means to amend the ſame and avoid the daunger, is to make wind and freſh aire, with continuall agitation of ſome linnen cloaths. Now when the pit is ſunke and digged as farre as to the water, the bottome muſt be laid, and the loweſt ſides of the wall reared of ſtone ſimply without any morter made of [lime and] ſand, for feare leaſt the veins of the ſource be ſtopped. Some waters there are, which in the verie prime and beginning of the ſpring, are of this nature, That they grow to bee exceeding cold; namely, ſuch as have their ſource or ſpring lying but ebb: for they are maintained onely of win-
F ter raine. Others againe, begin to be cold at the riſing of the Dog-ſtar. And verely we may ſee the experience both of the one and the other about Pella, the capitoll cittie of Macedonie: for the water of the meere or marriſh there before the towne, in the beginning of ſummer is cold; and afterwards, when the weather is at the hoteſt, the ſpring water in the higher parts of the cittie is ſo extreame cold, that it is readie to bee frozen. The ſemblable happeneth in Chios, where

there is the same reason of the haven and the towne it selfe. At Athens, the great and famous G
fountaine named Enneacrunos, in a rainie and stormie summer, is colder than the pit-water or well in *Iupiters* garden, within that citie; and yet the said well-water, if it bee a drie season, will stand with an yce at midsummer.

Chap. iiii.

The reason of certaine waters that appeare and be hidden againe sodainly.

* *i.* about the beginning of Iune.

But above all others, the waters of pits or wells be ordinarily most cold about the * retreat or occultation of Arcturus: yea and many times they doe faile in the mids of summer: and H
all of them in manner grow verie low for the space of foure daies at the time of the setting of the foresaid star. Many there be which have little or no water in them all winter long, & namely, about the hill Olympus, where it is spring first, ere the waters returne and find the way into their pits. And verely in Sicilia, about the cities Messana and Mylæ, during winter, the springs are altogither drie; but in summer time they run over the brinks of their wels and pits, and maintaine pretie rivers. At Apollonia, a citie in Pontus, there is a fen neare the sea side which in summer onely overfloweth, and especially about the rising of the great Dog star; mary if the summer be colder than ordinarie, it is not so free and plentifull of water. Some springs have this qualitie with them, To be drier for showres and raine water: as for example, in the territorie of Narnia, a citie in the duchie of Spoleto; which *M. Varro* hath not forgotten to insert among other I
admirable things in his treatise of Woonders: for of this territorie hee writeth in these tearms, That in a drought it was durtie, and in rainie weather dustie. Moreover, this is to be noted, That all waters are ordinarily in winter more sweet than in summer, but in autumne least of all; and in a drie season, lesse than at other times. Neither are the river waters most times of like tast, by reason of the great difference that is in their chanels: for commonly the water is such as the earth and soile through which it passeth, and doth participat the qualitie and tast of those hearbs alwaies which it washeth and runneth by. No marveile therefore, if the water of one and the selfesame river be found in one place more unholesome and daungerous than in another. It falleth out many times, that the brooks and rills which enter into great rivers, do alter their water in the verie tast (as we may see by experience in the famous river Borysthenes;) in so much as such great K
rivers be overcome with the influence of such riverets, and either their owne tast is delaied by them, or cleane drowned and lost. And some rivers there bee, which chaunge by occasion of raine: the proofe whereof was thrice seene in Bosphorus, when by reason of the fall of some salt showres the flouds that overflowed the fields, destroied all the corne upon the ground. The like also happened as often in Ægypt; for the raine that fell, caused all the washes arising from the river Nilus which watered the grounds, to be bitter, whereupon ensued a great plague and pestilence to the whole region. It chanceth many times, that presently upon the cutting and stocking up of woods, there arise and spring certaine fountains, which beforetime appeared not, but were spent in the nourishment of the tree-roots: as it fell out in the mountaine Hæmus, when as
* or Galatians. *Cassander* held the * Gallogreeks besieged: for when the woods thereupon were cut downe to L
make a palaisad for a rampier, sodainly there issued foorth springs of water in their place. Moreover, it hath been oftentimes knowne, that by occasion of spoiling some hills of the wood growing thereupon, the springs have met all togither in one streame, and done much hurt in sodaine overflowing the vale beneath; whereas the trees beforetime had woont to drinke up, digest, and consume all the moisture and wet that fell, and fed the said waters. And verely it availeth much for the maintenance of water, to stirre with the plough, and to till a ground; thereby to breake up and loose the uppermost callositie and hyde (as it were) of the earth, that kept it clunged and bound. Certes, it is recorded for a truth, that upon the rasing and destroying of Arcadia (a town so called in Creete) whereby the place was dispeopled, all the fountains waxed drie, and the rivers in that tract (which were many) came to nothing: but six yeeres after, when the said towne M
was reëdified, even as the inhabitants fell to earing and ploughing any grounds within their territorie, the foresaid fountains appeared againe, and the rivers returned to their former course.

Chap.

A

Chap. v.

Divers historicall observations touching this point.

MOreover, Earthquakes, as they discover sometimes new springs and sources of water, so otherwhiles they swallow them up that they are no more seene: like as it hapned (as it is well knowne) five times about the river Pheneus in Arcadia. And in manner above-said, there issued forth a river out of the mountaine Corycus, so soone as the paisants of the countrey began to breake it up for tillage. But to returne againe to the chaunge and alteration of waters: wonderfull they must needs be (no doubt) when there is no evident cause thereof to be known: as
B namely in Magnesia, where all the hote waters of the baines sodainly became cold, without any other chaunge besides of the tast: also in Caria, where standeth the temple of *Neptune*, the river which was known before to be fresh and potable, all on a sodaine turned into salt water. Over and besides, is not this a straunge miracle, that the fountain Arethusa in Syracuse, should have a sent or smell of dung, during the solemne games and exercises at Olympia? But there is some probable reason to be rendred hereof, Because the river Alpheus passeth from Olympus under the verie bottom of the sea into that Island [of Sicilie] where Syracuse standeth, and so commeth to the foresaid fountain. The Rhodians have a fountain within their *Chersonese, which every ninth yeer purgeth it selfe and sendeth out an infinit deale of ordure and filthinesse. And as the tast and smell of waters do alter, so their colours also doe chaunge: as for example, there is a lake in the
C countrey of Babylon, which everie summer for the space of eleven daies, looketh red: and Borysthenes also in summer time, runneth with a blewish colour like * violets, or the skie; and yet a most pure and subtile water it is of all other: which is the reason, that it swimmeth aloft & floteth naturally upon Hypanis the river. In which two rivers, there is another marvaile reported, That all the while a Southerne wind bloweth, the river Hypanis is discerned above it. But there is one argument more besides, that proveth the water of Borysthenes to be passing light and thin, For that there arise no mists out of it; nay it is not perceived to yeeld any exhalation or breath at all from it. To conclude, they that would seem to be curious and skilfull in these matters, do observe and affirme, That generally all waters grow to be heavier after that mid-winter is once past.

* *i.* their demy-island, or rather a place environed round about with sea, save onely that it hath one bank or narow causey leading to the continent. * *Isaacus, Athen.*

D

Chap. vi.

The manner of water-conduits. How and when those waters which naturally are medicinable, ought to be used. Also for what diseases it is good to saile and take the aire of the Sea. The vertues and properties of sea waters as touching Physicke.

IF a man would conveigh water from any head of a spring, the best way is to use pipes of earth made by potters art; and the same ought to be two fingers thicke, and one jointed within another, so as the end of the upper pipes enter into the neather, as a tenon into a mortaise, or as a box into the lid: the same ought to be united and laid even, with quicklime quenched and dissolved in oile. The least levell for to carie and commaund water up hill from the receit, is one hun-
E dred foot; but if it bee conveighed but by one canell and no more, it may be forced to mount the space of two Actus, *i.* 240 foot. As touching the pipes by means whereof the water is to rise aloft, they ought to be of lead. Furthermore, this is to be observed, That the water ascend alwais of it selfe at the deliverie, to the heigth of the head from whence it gave receit; if it be fetched a long way, the worke must rise and fall often in the cariage thereof, that the levell may be maintained still. As for the pipes, ten foot long apeece they would be, if you doe well. Now if the said pipes of lead be but * five fingers in compasse, ordinarily they should weigh sixtie pound: * if they be of eight fingers size, they must carie the weight of one hundred pound: but in case they
F beare a round of * ten fingers, their poise would be at the least 120 pound; and so the rest more or lesse according to this proportion. Those pipes be called properly in Latin Denariæ, the web or sheet whereof beareth ten fingers in breadth, before it be turned in and brought to the compasse of a pipe: like as Quinariæ, when the same is halfe so broad. Moreover, this is to be observed, That in every turning and twining of an hill, the pipe ought of necessitie to be five fingers round and no more, for to represse and breake the violence of the water in the current. Likewise the vaulted heads which receive and containe water from all the fources meeting togither, must

* *Quinariæ.* * *Octonariæ.* * *Denariæ.*

be of that capacitie, as need requireth. G

And since I am falne into the treatise and discourse of Fountains, I woonder much at *Homer*, that he hath made no mention at all of hot springs, and yet otherwise throughout his whole poëme, he bringeth in oftentimes those who bathed and washed in hot bains. But it may verie well be, that the reason thereof is, because in those times there was not that use of them in physicke as at this present: for now adaies, if folke be amisse or ill at ease, straightwaies they run to the bains and bath, for remedie. And in truth, those waters which stand upon brimstone, bee good for the sinews: such as come from a veine of alume, are proper for the palsie, or such like infirmities proceeding from resolution of the nerves. Moreover, they that hold of bitumen or nitre (such as be the fountains Cutiliæ) be potable and good to be drunke, and yet they are purgative.

To come to the use of naturall bains and hot waters: many men in a braverie sit long in a bath, H and they take a pride in it, to endure the heat of the water many hours togither; and yet is there nothing so hurtfull for the bodie: for in truth, a man should continue little longer in them than in ordinarie artificiall bains or stouphs; and then afterwards when hee goeth forth, he is to wash his bodie with fresh cold water, not without some oile among. Howbeit, our common people here, thinke this to be very straunge, and will not be brought to it: which is the reason, that mens bodies in no place, are more subject to diseases: for the strong vapours that steme from thence, stuffe and fill their heads; and although they sweat in one part, yet they chill in another, notwithstanding the rest of their bodies stand deepe within the water. Others there are besides, who upon the like erroneous conceit, take great joy in drinking a deale of this water, striving avie who can poure most of it downe the throat. I have my selfe seene some of them so puffed up & swolne I with drinking, that their very skin covered and hid the rings upon their fingers, namely, when they were not able to deliver againe the great quantitie of water that they had taken in. Therefore this drinking of much water is not good to be used, unlesse a man doe eftsoons eat *salt withall. Great use there is and to good purpose, of the mud which these fountains do yeeld; but with this regard, that when the bodie is besmeared and bedawbed outwardly therewith, the same may drie upon it in the Sun.

*For to irritat and provoke the expulsive facultie to send all forth againe.

Well, these hote waters be commonly full of vertue; howbeit, this is not generall, That if a spring be hot, by and by we should thinke it is medicinable; for the experience of the contrarie is to be seene in Egesta of Sicilie, in Larissa, Troas, Magnesia, Melos, and Lipara. Neither is it a sure argument of a medicinable water (as many are of opinion) if a peece of silver or brasse which K hath been dipped therein, loose the colour: for there is no such matter to be seen by the naturall baths of Padua; neither is there perceived in them any difference in smell from others.

Concerning Sea waters, the same order and meane is to be observed, especially in such as be made hot, for to helpe the pains and infirmities of the sinews: and many hold them good to sowder fractures of bones, yea and to cure their bruises and contusions: likewise they have a desiccative vertue, whereby they drie rheumaticke bodies; in which regard, men bath also in sea water actually cold. Moreover, the sea affourdeth other uses in divers and sundrie respects, but principally the aire thereof is holesome for those who are in a phthysicke or consumption (as I have before said) and cureth such as doe reach or void bloud upward: And verely, I remember of late daies, that *Annæus Gallio* after that he was Consull, tooke this course; namely, to saile upon the L sea, for this infirmitie. What is the cause thinke yee, that many make voiages into Ægypt? surely it is not for the aire of Ægypt it selfe, but because they lie long at sea, and be sailing a great while before they come thither. Furthermore, the vomits also which are occasioned at sea by the continuall rolling and rocking of the ships never standing still, are good for many maladies of head, eyes, and breast; and generally they doe cure all those accidents, for which the drinking of ellebore serveth. As for sea water to be applied simply of it selfe unto the outward parts, physicians are of opinion, that it is more effectuall than any other, for to discusse and resolve tumors: and more particularly, if there be a cataplasme made of it and barley meale sodden togither, it is singular for the swellings behind the eares, called Parotides. They mingle the same likewise in plaistres, such especially as be white and emollitives: and if the head be hurt, and the *brain touched M and offended, it is soveraigne to be infused into the wound. It is prescribed also to be drunke: for albeit the stomacke take some offence and hurt thereby, yet it purgeth the bodie well, and doth evacuat melancholicke humors and blacke choller; yea and if the bloud be cluttered within the bodie, it sendeth it out one way or other, either upward or downward. Some have ordained it to

*Cerebro icto.

be

A be given for the quartan fever; others advise to save and keepe it a time, for to serve the turne in case of Tinesmes, which are unordinat streinings at the stoole to no effect: also of all gouts and pains of joynts: and in verie truth, by age & long keeping, it forgoeth all that brackish tast which it had at the first. Some boile it before: but all in generall agree in this, To use for these purposes that sea water which was taken out of the deepe far from the land, such as is not corrupt with any mixture of fresh water with it; and before their patients doe drinke it, enjoyne them to vomit; and then also doe they mingle with it, either vinegre or wine for that purpose. They that give little thereof, and by it selfe, appoint radishes to be eaten presently upon it, with honeyed vinegre or oxymell, for to provoke the patient to vomit againe. Moreover, they use otherwhile to minister a clystre made of sea water, first warmed: and verely there is not a better thing than it for to
B bath and foment the cods withall, if they be swelled either with ventosities or wateriish humors. Also it is much commended for kibed heels, if they bee taken before they are broken and exulcerat: and in like manner they kill the itch, cure scabs, tettars, and ringworms. Sea water serveth well to wash the head, & to rid it of nits and filthie lice: yea and reduceth blacke and blew marks in the skin, to the fresh and lively colour againe. In all these cures, after the use of salt water, it is passing good to foment the place affected, with vinegre hote. Over and besides, it is thought to be verie holesome and good against the venomous stings of serpents, and namely of the spiders Phalangia and scorpions. Semblably, it cureth those that be infected outwardly with the noisom salivation or spittle of the deadly aspis called Ptyas: but in these cases it must be taken hote. Furthermore, a perfume made with sea water and vinegre, is singular for the head-ach. If it be cly-
C sterized hot, it allaieth the wrings and grindings of the bellie; yea and staieth the violent motions of cholerique humours working upward and downward. Those that be once chafed and set into an heat with sea water, shall not so easily feele cold againe. When womens paps are overgrowne, and so exceeding great that they meet and kisse one another, there is not a better thing to take them downe, than to bath in a tub of sea water: the same also may serve to amend the griefe of the bowels and precordiall parts, yea and to restore those that be exceeding leane and worne away. The fumes and vapors of this water boiling togither with vinegre, are soveraign for those that be hard of hearing, or troubled with the head-ach. Sea water hath this especiall propertie, that of all things it scoureth away rust of yron soonest. The scab that annoieth sheepe, it healeth, and maketh their wooll more soft and delicat. But what meane I to say thus much of sea
D water, knowing as I doe full well, that for those who dwell far up into the maine, and inhabit the inland parts, all this may seeme needlesse and superfluous? And yet there hath been means devised to make artificiall sea water, wherewith everie man may serve his owne turne when he will. In which invention, one wonderfull thing is to be seene; namely, if a man put more than one sextar of salt to foure of water, the nature of the water will be so far overcome, that salt shall not dissolve nor melt therein: but if you mingle one sextar of salt just with foure sextars of water, you shall have a brine as strong as the saltest water that is in the sea: but to have a kind and most mild brine, it is thought sufficient to temper the foresaid measure of water with eight cyaths of salt: and this water thus proportioned, is very proper for to heat the sinews, without any fretting of the skin at all. There is a certaine compound sea-water kept in manner of a syrrup, which they call
E Thalassomeli, made of sea water, hony, and raine water, of each a like quantititie. Now the foresaid sea water, they fetch for this purpose out of the verie deepe, and this composition they put up in earthen vessels well pitched or varnished, and reserve it for their use. An excellent purgative this is; for besides that it cleanseth the stomacke without any hurt or offence thereof, the tast and smell both, are verie pleasant and delectable. As touching the mead called Hydromell, it consisted in times past of rain water well purified, and hony: a drinke ordained and allowed only to sicke and feeble persons when they called for wine, as beeing thought lesse hurtfull to bee drunke: howbeit, rejected it hath been these many yeers, and condemned: for by experience it was found at length, to have the* same discommodities that wine, but far short it was of the good and holesome qualities of wine.

* Namely, adverse to the head & sinews.

F Moreoveover, for as much as sea-faring men and sailers be many times at a fault for fresh water, and thereby much distressed, I thinke it good to shew the means how to be provided for the supply of this defect. First and foremost therefore, if they spread and display abroad certaine fleeces of wooll round about a ship, the same will receive and drinke in the vapours of the sea, and become moist and wet withall; presse or wring them well, you shall have water fresh enough.

Item, let downe into the ſea within ſmall nets, certaine pellets of wax that be hollow, or any other void and emptie veſſels well cloſed and luted, they will gather within them water that is freſh and potable: for we may ſee the experience hereof upon the land: take ſea water & let it run through cley, it will become ſweet and freſh. G

But to proceed unto the other medicinable properties of water: let there be any diſlocation in man or beaſt; by the ſwimming in water (it matters not of what kind it be) the bones will very quickely and with great eaſe be reduced into joynt againe.

It falleth out many times that travailers be in feare and daunger of ſome ſickneſſe, by change of waters, and ſuch eſpecially as they know not the qualitie and nature of. To prevent this inconvenience, they drinke the water cold which they doubt and ſuſpect, ſo ſoon as ever they be come out of the baine; for then they ſhall find it preſently. H

As touching the moſſe which is found in the water, ſoveraigne it is for the gout, in caſe it bee applied outwardly: mix oile thereto, and reduce it into the forme of a cataplaſme or liniment, it eaſeth the paine, and taketh downe the ſwelling of the feet about the ankles. The fome and froth that floteth above the water, cauſeth werts to fall off, if they be well rubbed therewith.

The very ſand likewiſe upon the ſea ſhore, eſpecially that which is ſmall and fine, and the ſame burnt as it were with the heat of the Sun, is a ſoveraigne remedie to drie up the waterie humors in a dropſie, if the bodie bee covered all over therewith; and to that purpoſe it ſerveth alſo for rheums and catarrhs. Thus much may ſuffice concerning water it ſelfe: it remaineth now to treat of ſuch things as the water yeeldeth. In which diſcourſe, begin I will (as my order and maner hath ben in all the reſt) with thoſe matters which be chiefe and principall, and namely, Salt & Spunges. I

Chap. vii.

The ſundrie kinds of Salt: the making thereof: the vertues medicinable of Salt: and divers other conſiderations reſpective thereto.

SAlt is either artificiall or naturall: and both the one and the other is to be conſidered in many and divers ſorts, which may be reduced all into two cauſes: for ſalt commeth either of an humor congealed, or els dried. In the gulfe or lake of Tarentum, the ſalt is made of the ſea water dried by the heat of the ſummer ſun; for then you ſhall ſee the whole poole converted into a maſſe of ſalt: and verely the water there, is otherwiſe verie low and ebb, and not above knee-high. The like is to be ſeene in Sicilie within a lake called Cocanicus; as alſo in another neare unto Gekas: but in theſe, the brims and ſides onely about the banks, wax drie and turne into ſalt, like as in the ſalt-pits about Phrygia and Cappadocia. But at Aſpenchum, there is more plentie of ſalt gathered within the poole there, for you ſhall have the ſame turne into ſalt, even the one halfe thereof to the verie mids. In which lake, there is one ſtrange and wonderfull thing beſides; for looke how much ſalt a man taketh out of it in the day, ſo much ordinarily will gather again by night. All the ſalt of this ſort is ſmall, and not growne togither in lumps. Now there is another kind of ſalt, which of the owne accord commeth of ſea water, and it is no more but the fome or froth which is left behind ſticking to the edges of the banks, or to rocks. Both the one & the other become thicke and hard in manner and forme of a candied dew: howbeit that which is found in the rocks, is more quicke and biting than the other. There is beſides of ſalt naturall, a third diſtinct ſort from the former: for in the Bactrians country there be two great and huge lakes, which naturally do caſt up a mightie quantitie of ſalt: the one lieth toward the Scythians, and the other bendeth to the Arians countrey: like as neare unto Citium, a citie in the Iſle Cypros, and about Memphis in Ægypt, they draw foorth ſalt out of lakes, and afterwards drie the ſame in the Sun. Moreover, there be certaine rivers which beare ſalt, and the ſame congealed aloft in their upper part, in manner of ice, and yet the water runneth underneath and keepeth the courſe well enough: As for example, about the ſluces and ſtreights of the mount Caſpius; and thereupon they bee called the Rivers of ſalt: as alſo in other rivers of Armenia, and about the Mardians countrey. Moreover, Oxvs and Othus, two rivers paſſing through the region Bactriana, carrie ordinarily downe with them in their ſtreame, great peeces and fragments of ſalt, which fall from the mountains adjoyning unto them. There are beſides in Barbarie, other lakes, and thoſe verely thicke and troubled, which engender and beare ſalt. But what will you ſay, if there bee certaine fountaines of hote waters which breed ſalt? and yet ſuch bee the baines or ſprings called Pagaſæi. K L M

Thus

A Thus farre forth have I proceeded in thoſe kinds of ſalt which come of waters naturally. There are beſides certaine hils alſo which are given by nature to bring forth ſalt, and ſuch is the mountaine Oromenus among the Indians, wherein they uſe to hew ſalt as out of a quarie of ſtone, and yet the ſame groweth ſtill: inſomuch, as the kings of that countrey make a greater revenue by farre out of it, than either by their mines of gold, or the pearles which thoſe coaſts do yeeld. Furthermore, it is evident, that in Cappadocia there is ſalt *Minerall, digged out of the earth: and it appeareth plainely, that it is a ſalt humor congealed within. And verely, they uſe to cut it out of the ground after the manner of *Glaſſe-ſtone, in lumpes: and thoſe exceeding heavie, which the peaſants commonly call *crums of ſalt. At Carrhæ, a citie of Arabia, all the wals thereof, as alſo the houſen of the inhabitants, be reared and built of ſalt ſtones: and the ſame be laid by Ma-
B ſons worke, and the joints cloſed and ſoudered by no other morter but plaine water. King *Ptolomæus*, at what time as he encamped about Peluſium, a citie of Ægypt, and caſt up a trench to fortifie the ſame, found ſuch a mine or quarrey of ſalt as theſe, which was a preſident to others afterward to ſinke pits betweene Ægypt and Arabia, even in the waſt and drie quarters, where under the delfe of ſand they met with ſalt. After which manner alſo they practiſed to dig in the deſart and drie ſands of Affricke, and found more as they went, even as farre as to the temple and Oracle of *Iupiter Ammon*. And verely they might perceive this ſalt to grow in the night ſeaſon, according to the courſe of the Moone. As for all the tract and countrey of Cyrenæ, famous it is, and much ſpoken of, for the ſalt *Ammoniacum, ſo called, by reaſon that it is found under the ſands. In colour and luſtre it reſembleth that Alume de Plume, which the Greekes call Schiſtos:
C It groweth in long lumpes or peeces, and thoſe not tranſparent: the taſt is unpleaſant, howbeit, this ſalt is of good uſe in Phyſicke. The cleareſt thereof is taken for the beſt, eſpecially when it will cleave directly into ſtreight flakes. A ſtraunge and wonderfull nature it hath if it be right: For ſo long as it lieth under ground within the mine, it is paſſing light in hand, and may bee eaſily welded; take it forth once, and lay it abroad above ground, a man would not beleeve or imagin how exceeding heavie it is. But ſurely the reaſon thereof is evident: for the moiſt vapours contained within thoſe mines where it lieth, bear up the ſaid peeces of ſalt, and are a great eaſe to thoſe that deale therewith, much like as the water helpeth much to the ſtirring and managing of any thing within it, be it never ſo weightie. Well, this Ammoniacke ſalt is corrupted and ſophiſticat, as well with the pit-ſalt of Sicilie called Cocanicus, as alſo with that of Cypreſſe, which is wonderfull like
D unto it. Moreover, neare Egelaſta, a cittie in high Spaine, there is a kind of ſal-gem or Minerall ſalt digged: the peeces or lumpes whereof are ſo cleare, as a man may in a manner ſee through them: and this hath of long time been in great requeſt and of ſuch name, as the Phyſicians give unto it the price and praiſe above all other kinds. But here is to be noted, that all places where ſalt is found, are ever barren, and will beare no good thing els. And thus much may bee ſaid concerning ſalt that commeth of the owne accord.

As touching ſalt artificiall, made by mans hand, there be many kinds thereof. Our common ſalt, and whereof we have greateſt ſtore, is wrought in this manner: Firſt they let into their pits a quantitie of ſea-water, ſuffering freſh water to run into it by certaine gutters, for to bee mingled therewith for to helpe it to congeale, whereto a good ſhower of raine availeth very much, but a-
E bove all the Sunne ſhining thereupon, for otherwiſe it will never drie and harden. About Vtica in Barbarie they uſe to pile up great heapes of ſalt in manner of Mounts: which after that they be hardened and ſeaſoned in the Sunne and Moone, ſcorne all raine and foule weather, neither will they diſſolve, inſomuch, as folke have ynough to doe for to breake and enter in with picke-axes. Howbeit, in Candie the ſalt is made in the like pits, but of ſea-water onely, without letting in any freſh water at all. Semblably, in Ægypt, the ſea it ſelfe overfloweth the ground, which (as I take it) is alreadie ſoked & drenched with the river water of Nilus, and by that means their ſalt is made. After the ſame manner they make ſalt alſo out of certaine wels, which are diſcharged into their ſalt-pits. And verely in Babylon, the firſt gathering or thickening of the water in their ſalt-pits, is a certaine liquid Bitumen or Petroleum, an oleous ſubſtance, which they uſe in their lampes, as
F we doe oile: and when the ſame is ſcummed off, they find pure ſalt underneath. Likewiſe in Cappadocia they doe conveigh and let in water out of certaine wels and fountaines into their ſalt-pits. In Chaonia there be certaine *ſprings of ſaltiſh water, which the people of that country doe boile, and when it is cooled againe, it turneth into ſalt: but it is but dull and weak in effect, and beſides, nothing white. In Fraunce and Germanie the manner is when they would make ſalt, to caſt ſea-

*Sal Gemma.

*Lapis ſpeculáris, vitrum vel glacies Marina; or Lapis Arabicus.

*Micas Salis.

*Of ἄμμος in Greeke, which is ſand.

This ſeemeth to be our Bay-ſalt.

*This is the order of ſalt with us in our Wiches here in England.

ſea-water into the fire as the wood burneth. [In ſome parts of Spaine there be ſalt ſprings, out of which they draw water in maner of that brine, which they call Muria.] But thoſe verely of France and Germanie be of opinion, that it skilleth much what wood it is that ſerveth to the making of ſuch fire. Oke they hold the beſt, as being a fewell, the ſimple aſhes whereof mixed with nothing elſe, may goe for ſalt. And yet in ſome places they eſteeme Hazell wood meeter for this purpoſe. Now when the ſaid wood is on fire and burning, they poure ſalt liquor among, whereby not only the aſhes but the very coales alſo will turne to bee ſalt. But all ſalt made in this ſort of wood, is blacke. I read in *Theophraſtus*, That the Iſlanders of Imbros were wont to boile in water, the aſhes of reeds and canes, untill ſuch time as there remained little moiſture unconſumed, and that which was left they uſed for ſalt. The brine and pickle wherein fleſh or fiſh hath beene kept ſalt, if it be boiled a ſecond time untill the liquor be ſpent and conſumed, returneth to the own nature, and becommeth ſalt againe. Certes, we find, That the ſalt thus made of the pickle of Pilchars or Hearings, is of all other moſt pleaſant in taſt. As touching the ſalt made of ſea-water, that of the Iſle Cypres, and namely, that which commeth from Salamis, is commended for the beſt. But of poole ſalt, there is none comparable to the Tarentine and Phrygian, eſpecially that which they call Tatteus, of the lake Tatta. And in truth, both theſe kinds of ſalt be good for the eyes. The ſalt brought out of Cappadocia in little earthen pipes, hath the name to make the skin ſlicke and faire: But for to lay the ſame plaine and even, and make it looke full and plumpe without rivels, the ſalt which I called Cittieus hath no fellow. And therefore women after they bee newly delivered of child, uſe to annoint and rub their bellies with this ſalt, incorporat together with Gith or Nigella Romana. The drieſt ſalt is evermore the ſtrongeſt in taſt. The Tarentine ſalt is taken for to be moſt pleaſant, and whiteſt withall. Otherwiſe, the whiter that ſalt is, the more brittle it is and readier to crumble and fall to pouder. There is no ſalt but raine water will make it ſweet & freſh. The more pleaſant it will bee and delicat to the taſt, in caſe the deaw fall thereupon: but North-eaſt winds engender moſt plentie thereof. In a Southerly conſtitution of the weather, and namely, when the wind is full South, you ſhall ſee no ſalt engendered. The * floure of ſalt (commonly called Sperma-Ceti) is never bred but when the Northeaſt winds doe blow. The ſalt Tragaſæus will neither ſpit, crackle, leape, nor ſparkle in the fire; no more will Acanthius (ſo called of a towne of that name:) neither doth the ſome of ſalt, nor the gobbets & fragments, ne yet the thin leaves or flakes thereof. The ſalt of Agrigentum, a citie in Sicilie, will abide the fire and make no ſparkling: put it into water, it will keepe a ſpitting and crackling. Great difference there is in ſalt, in regard of the colour. At Memphis [*i.* Caire] in Ægypt, the ſalt is of a very deep red: but about the river Oxus in Bactriana, more tawnie or enclining to a ruſſet. And the Centuripine ſalt within Sicilie is purple. About Gela in the ſame Iſland, the ſalt is ſo bright and cleare, that it will repreſent a mans face, as in a mirroir. In Cappadocia, the Minerall ſalt which they dig, is of a yellow Saffron colour, tranſparent, and of a moſt redolent ſmell. For any uſe in Phyſicke, the Tarentine ſalt was in old time highly commended above the beſt: after which they eſteemed moſt, all the ſea ſalts; and of that kind the lighter, and that which eſpecially is of the nature of ſome. For the *eyes of horſes and Bœufes, they made great reckoning of the Tragaſæan ſalt, and that of Granado or Bœtica in Spaine. For dreſſing of viands and cates; for to bee eaten alſo with meat; the better is that ſalt, which ſooner melteth and runneth to water. That alſo which by nature is moiſter than others, they hold to bee better for the kitchin or the table (for leſſe bitterneſſe it hath) and ſuch is that of Attica and Euboea. For to pouder and keepe fleſh meat, the drie ſalt & quick at tongues end is thought to be meeter than other, as we may ſee in the ſalt of Megara. Moreover there is a certaine confite or condited ſalt, compounded alſo with ſweet ſpices and aromaticall drougs: which may bee eaten as a daintie kind of gruell or ſauce; for it ſtirreth up and whetteth appetite, eat the ſame with any other meats: inſomuch, as amongſt an infinite number of other ſauces, this carieth away the taſt from them all; for it hath a peculiar ſmatch by it ſelfe, which is the cauſe, that the pickle Garum is ſo much ſought after for to give an edge to our ſtomack. And not onely we men are ſollicited and moved by ſalt more than by any thing elſe to our meat, but muttons, Bœufes, and Horſes alſo have benefit therby in that reſpect: they feed the better, give more ſtore of milke, and the cheeſe made thereof hath a more daintie and commendable taſt by that meanes. And to conclude all in one word, the life of mankind could not ſtand without ſalt, ſo neceſſarie an element (if I may ſo ſay) it is for the maintenance of our life, that the very delights and pleaſures of the mind alſo are expreſſed by no better tearme than ſalt: for ſuch gifts and conceits

G H I K L M

of

* *Hálos-anthos*, which he rendreth *Flos-ſalis*: wheras indeed *Flos-ſalis*, *i.* the floure of ſalt, is another thing, as himſelf ſheweth elſwhere, by the name of *tenuiſſima favilla ſalis*.

* *Sandivere.*

A of the spirit as yeeld most grace and contentment, we use in Latine to call Salis. All the mirth of the heart, the greatest cheerfulnesse of a lightsome mind, and the whole repose and contentment that a man findeth in his soule, by no other word can bee better shewed. Moreover, this tearme in Latine of Sal, is taken up and used in warre, yea, and divers honors and dignities bestowed upon brave men for some worthie service, goe under this name, and bee called Salaries. And how highly our auncestours accounted thereof, it may appeare by the name of that great port-way or street Salariæ, so called, because all the salt that went into the Sabines countrey, passed that way. Moreover, it is said, That *Ancus Martius* king of Rome, was the first that erected the salt-houses, and gave unto the people a congiarie or largesse of 6000 Modij of salt: And *Varro* writeth, That our auncestours in times past used salt ordinarily in stead of an houshold gruell: for they
B were wont to eat salt with their bread and cheese, as may appeare by the common proverbe that testifieth so much. But most of all we may gather in what request and account salt was in sacrifices and oblations to the gods, by this, that none are performed & celebrated without a cake of meale and salt. Furthermore, where salt is truly made without any sophistication, it rendereth a certaine fine and pure substance (as it were) the most subtile cindres of ashes: which as it is lightest, so none is so white as it. There is that also which is called the Floure of salt, altogether different from salt, as beeing a kind of deaw, of a moister nature; resembling Saffron in yellow colour, or else enclining rather to a sad red or russet colour, and is as a man would say the rust of salt: the strong and unpleasant smell likewise, which commeth neare unto that of the pickle Garum, bewraieth that it is a distinct thing from salt, as well as from the froth thereof. This Floure of salt came first
C from Ægypt, and it seemeth as though it floted upon the river Nilus, and were caried downe the streame thereof. And yet there bee some fountaines which doe beare and put up the same, upon which it swimmeth aloft. Of this kind, the best is that which yeeldeth a certaine fattie and unctuous oile: For this you are to thinke, that salt is not without a kind of fattinesse, wonderfull though it be. This flour of salt is sophisticated and commonly coloured with red ocre, or els many times with potshards reduced into pouder: but this deceit may be quickly knowne and found by water; for if it be a false and artificiall colour, water will wash it off: wheras the true floure of salt indeed, will resolve by nothing but by oile, and verely the Apothecaries and confectioners of sweet oiles and ointments, use it most of all for the colour sake, when they would give a fresh & lively hue to their compositions. Being put up in any vessell, it seemeth white and hoarie aloft: but the middle
D part within, is as I have said, more moist ordinarily. As touching the properties of this Floure of salt, by nature it is biting, hot, and hurtfull to the stomacke; it moveth sweat, and looseth the belly taken in wine and water: good also it is for to enter into those ointments which are devised for lassitude and wearinesse: and by reason of the abstersive facultie that it hath, fit for sope and scouring balls. Nothing so effectuall to cause the haire to fall from the eye lids. As for the residence or grounds thereof, setling in the bottome of the pot where this floure is kept; they use to shog and shake the same together, to bring it againe unto the colour of Saffron. Over and besides, there is in salt-houses another substance like brine, which in Latine is called Salsugo or Salsilago, altogether liquid; salter in taste than sea-water, but in strength farre short of it and different. And yet is there one kind more of an exquisit and daintie liquor in manner of a dripping, called Garum,
E proceeding from the garbage of fishes, and such other offall as commonly the cooke useth to cast away as it lieth soaking in salt: so as if a man would speake properly, it is no other but the humor that commeth from them as they do lie and putrifie. In old time this sauce was made of that fish which the Greekes called Garon. Where by the way this commeth to my mind, that if a woman sit over the perfume or suffumigation of the head of this fish whiles it burneth, it is of power to fetch away the afterbirth that staieth behind when the child is borne.

Chap. VIII.

Of the fishes called* Scombri. Of fish pickle: and the fish sauce, named in old time Alex.

*Commonly taken for Maquerels.

F NOw adaies the most daintie and exquisit Garum is made of the fish called Scomber: and that in new Carthage, where there groweth such store of Spart or Spanish broome; and namely, in the stewes and ponds by the sea side where fishes are kept salted. In times past, and yet, it beareth the name of The *Allies sauce, or their Garum: so costly and so much in re-

*Garum sociorū

quest,

queſt,that every two gallons thereof might not be bought, much under the price of a thouſand Seſterces. Certes ſetting aſide ſweet perfumes and odoriferous ointments,there was not a liquor almoſt in the world that began to grow unto a higher rate & reckoning; inſomuch as ſome places and people caried the name thereof,and were ennobled thereby. And verely in all Mauritania,Granade in Spaine,and Carteia,the inhabitants lie in wait to fiſh for theſe Scombri,and to take them as they enter out of the Ocean into the ſtreights of Gilbretar, and all for this Garum, being indeed good for nothing elſe. The citie Clazomenæ in Aſia, the townes Pompeij and Leptis,are much renowned for this ſauce: like as Antipolis,Thurij, and of late daies, Dalmatia for their pickle. The groſſe grounds or dregs of this ſauce,before it be ſtrained,purified,and fully finiſhed,is called Alex,even the very defect and imperfection therof. Howbeit,of late time men have gone in hand to make the ſaid Alex or Garum of one kind of fiſhes apart by themſelves, which otherwiſe are good for little or nothing,and of all others be ſmalleſt. This fiſh we in Latin call Apua,the Greekes Aphye,for that it is engendered of raine and ſhowers. In the territorie of Foro-julium,the fiſh whereof they make this ſauce,they call*Lupus. But in proceſſe of time Garum aroſe to exceſſe,both in price and varietie of uſe; inſomuch as there grew an infinit number,of diverſe kinds: For one ſort there was of Garum that in colour reſembled old honied wine, and became ſo cleare and ſweet withall,that it might well ynough have ben drunk for wine: another kind there was,which our ſuperſtitious votaries uſe, for to keepe themſelves chaſt and continent; & the Iewes alſo in their holy ſacrifices employed the ſame,eſpecially that which is made of skalie fiſhes. In like maner,the other ſauce,Alex, is come to be made of Oyſters, ſea Vrchins, ſea Nettles,Crabfiſhes,Lobſtars,and the livers of ſea Barbles. In ſumme,thus we have deviſed a thouſand waies to diſſolve ſalt with the conſumption of the ſubſtance of fiſh, and all to procure appetite to meat and to content the bellie.

*Which ſome take to be our Pike.

Thus much I thought good to note curſarily, as touching thoſe ſauces which are ſo greatly longed after in the world; and the rather for that in ſome ſort they ſerve in the practiſe of Phyſick: For the groſſe liquor or ſauce Alex,healeth the ſcab in ſheepe, if the skin be ſcarified or skiced, and the ſame Alex poured thereupon. Alſo it is ſingular againſt the biting of a mad dog, or the pricke of the ſea dragon. The ſame likewiſe ſerveth to ſoake linnen wreaths to bee laid in wounds; or tents made of lint to bee put into ſores. As for Garum, it healeth any freſh burne, if a man drop it upon the place, without naming it,or ſaying that it is Garum: Good it is beſides for the biting of mad dogs, but eſpecially for the Crocodiles tooth: as alſo for running ulcers which be either corroſive or filthie. Of wonderfull operation & effect beſides for the ſores of the mouth, and eares,as alſo for their pains. The pickle Muria likewiſe,or that ſalt liquor that commeth from ſalt fiſh,called in Latin Salſugo,it is aſtringent,biting, diſcuſſive, and drying: ſingular for to cure the dyſenterie or bloudie flix, yea, though there were an eating ulcer within the guts: for the Sciatica and inveterat fluxes of the ſtomacke, it is ſoveraigne: and to conclude,thoſe that dwell farre from the ſea in the midland parts of a countrey, uſe to bath and foment themſelves with it in lieu of ſea water.

Chap. x.

The nature of Salt, and the medicinable vertues thereof.

Salt,by nature ſtandeth much upon fire,& yet an enemie it is and contrary unto fire, it flieth from it; eating & conſuming all things whatſoever: aſtringent it is, deſiccative, binding, and knitting. It keepeth from putrifaction, bodies that be dead, and cauſeth them to endure ſo a world of years. In Phyſick it is held for mordant, burning, cauſtike, and mundificative. It doth ſubtiliat, extenuat, and diſſolve. Contrarie it is unto the ſtomacke,& ſerveth not but only to provoke appetite. With origan, hony,& hyſſope, it is ſingular againſt the ſting of ſerpents: and more particularly of the horned ſerpent Ceraſtes, if it be applied with origan, cedar-roſin, pitch, or hony. Being drunke with vinegre, it helpeth thoſe that be pricked with the Scolopendre: and applied as a liniment with oile or vinegre, and a fourth part of line ſeed, it is good againſt the ſting of ſcorpions: likewiſe with vinegre alone, for the ſting of hornets or waſps and ſuch like. Incorporat with calves tallow, it ſerveth much to cure the migraim, skals in the head, ſmall pocks, meaſels,& werts which begin to breed: alſo for the accidents of the eies,& namely, the excreſcence of ſuperfluous fleſh in thoſe parts, or the turning up of the skin about the naile roots either of fingers or toes.

But

A But principally for the eyes: and therefore it entreth into collyries and eyeſalves. Howbeit, for theſe purpoſes abovenamed, it is thought that the ſalt named Tattæus, of the lake Tatta, is moſt commended, as alſo the other like unto it called Caunites. If the eyes bee bloudſhotten, or looke blacke and blew upon ſome ſtripe, applie ſalt with an equall weight of Myrrhe and with honey, or els with *Hyſſope and hote water: with this charge, to foment or bath the place afterwards with a kind of ſalt brine. But above all, Spaniſh ſalt would be choſen for this effect: & the ſame is good againſt cataracts and ſuffuſions of the eyes: if it bee ground with milke upon ſome touchſtone, whetſtone, or hard porphyrite marble. More particularly, it is ſingular for the black bloud gathered in the eyes, if it be folded within a little linnen cloth, and ſo applied: but the ſame ought to be dipped eftſoones in hote water, and ſo the place to be oftentimes patted withall. For the cankers B of ſores in the mouth, it is good to lay ſalt upon fine lint. In caſe the gumbs be ſwelled, it were not amiſſe to rub them therewith. Beeing beaten and reduced into ſmall pouder, it ſerveth for the roughneſſe of the tongue. Moreover, it is ſaid; That whoſoever hold every morning under his tongue while he is faſting a little ſalt untill it be melted, he ſhal by that meanes preſerve his teeth from being worme eaten or rotten. The ſame incorporat in raiſins without their ſtones, and in Bœufe ſuet, with a little origan, levaine, or bread, is ſoveraigne for the leproſie, fellons, tettars, ringwormes, and the wild ſcab. But in all theſe accidents, the ſalt of Thebais in high Ægypt is moſt commended: And of this they make choice alſo to kill the itch. A gargariſme or colluti- on thereof with honey, is paſſing good for the inflammation of the Amygdales and the Vvula. There is no kind of ſalt but it helpeth the Squinancie: and the rather, if it be uſed inwardly with C oile and vinegre, ſo as at the ſame time it bee applied without the throat alſo in a liniment with tarre. If a cup of wine be dreſſed therewith, it ſofteneth the bellie being coſtive. The ſame alſo taken in wine, chaſeth out of the bodie all wormes and any hurtfull vermine beſides. Held under the tongue, it enableth them that have been weakened with ſome long diſeaſe and newly recovered, to endure the heat of baines or ſtouves the longer. Singular it is for the greeſe of the ſinewes: but in the practiſe and uſe of this receit, it would be obſerved eſpecially that there bee applied about the ſhoulders and reines of the backe, ſachels or bags full of ſalt, and the ſame made hote oftentimes in ſeething water: for ſo it eaſeth the paine. Being given in drinke, or laid too exceeding hot in the ſaid bags, it aſſuageth the collicke & other wrings of the bellie, yea, and the Sciatica. Beaten ſmall, and applied in manner of a cataplaſme, with meale, honey, and oile, it is ſove- D raigne for the gout of the feet. Where I may not forget the obſervation of this ſoveraign receit which putteth us in mind, that there is nothing better for the whole bodie [of ſuch eſpecially as be ſubject to the gout] than *ſalt and Sunne together: For thus we ſee, that our fiſhers at ſea ordinarily have bodies as hard and tough as horne. A principall thing this is therefore to be nominated and ſet downe, for the gout in the feet. But ſalt moreover taketh away cornes of the feet, and kibes in the heels. Being chewed in the mouth and ſo applied, or els with oile, it healeth any burn or skald, and keepeth the skin from riſing into bliſters. With vinegre or hyſſope, it cureth S. *Anthonies* fire, and all ulcers that bee corroſive. It healeth likewiſe cankerous ſores, if it bee applied with wild Vine grapes. Reduced into fine pouder and laid too with Barley meale, it is ſoverain for ulcers corroſive, ſuch as be called Wolves, and doe eat deepe to the very bone; ſo there bee laid E over the ſame and the part affected, a linnen cloth well ſoaked and bathed in wine. A proper remedie it is for the jaundiſe, and riddeth away the itch occaſioned thereby, if the patient be rubbed all the bodie over with it, oile, and vinegre, againſt a good fire untill he ſweat. But with oile alone it ſerveth for thoſe that feele themſelves wearie. Many Phyſicians have cured thoſe that bee in a dropſie with ſalt; and have ordained to rub their bodies with oile and ſalt together who are in an ague, for to avoid the extremitie of heat: and they hold opinion, That there is not a better thing to diſpatch away an old cough, than to bee licking ever and anone of ſalt. They have given order likewiſe to miniſter ſalt by way of clyſtre up into the bodie, for the Sciatica. To applie the ſame alſo, for to eat away either prowd or dead fleſh in any ulcers. Being lapped within a linnen cloth, & applied to the biting of Crocodiles, it is ſoveraigne, ſo that the place affected were well patted F withall, and preſſed hard before. Moreover, good it is to be taken in honied vinegre againſt the daungerous Opiconi. Brought into a cataplaſme with honey and meale, it is of great effect to rectifie any diſlocation of bones which be out of joint: and in that ſort it taketh down all tumors or ſwelling bunches. A collution or fomentation therewith, allaieth rhe tooth-ach: and a liniment alſo made with it and roſin, worketh the ſame effect. For all theſe accidents beforenamed, the

*Hyſſopo. Some read Oeſypo.

*Sale & ſolè.

the fome of ſalt found ſticking to rocks or floting upon the ſea water, is thought to be more convenient than any other ſalt. But to conclude, any ſalt whatſoever it is, ſerveth well for thoſe medicines that bee ordained either to take away laſſitudes, or to enter into thoſe ſope-bals which are to poliſh the skin and to rid it from wrinckles. If either a bœufe or mutton be rubbed with ſalt, it will kill the skab or mange in them: for which purpoſe alſo they give it unto the ſaid beaſts for to licke: and more particularly, it is ſpurted out of ones mouth into horſes eyes. Thus you ſee what may be ſaid as touching Salt. G

Chap. x.

Of Nitre, and the ſundrie kinds thereof. The manner of making Nitre. The medicines and obſervations to it belonging. H

I May not put off the Treatiſe concerning the nature of Salnitre, approching ſo near as it doth to the properties of ſalt: and the rather am I to diſcourſe of it more exactly, becauſe it appeareth evidently, that the Phyſicians who have written thereof were altogether ignorant of the nature and vertues of it: neither is there any one of them who in that point wrote more adviſedly than *Theophraſtus*. In the firſt place this is to be noted, That among the Medians there is a little Nitre engendred in certain vallies, which in time of drought became all hoarie and grey therwith, and this they call Halmirrhaga. There is found alſo ſome of it in Thracia neare unto the citie Philippi, but in leſſe quantitie, and the ſame all foule and beraied with the earth, and this they name Agrion. In times paſt men have practiſed to make Nitre, of Oke wood burnt; but never was there any great ſtore thereof made by that deviſe: and long it is ſince that feat was altogether given over. As for waters and fountaines of nitre, there bee ynow of them in many places, howbeit, the ſame have no aſtringent vertue at all. But the beſt Nitre is found about Clytæ in the marches of Macedonie, where there is moſt plentie thereof, and they call it Chalaſtricum: White and pure it is, and commeth neareſt to the nature of ſalt. And verely, a lake or meere there is ſtanding altogether upon Nitre, and yet out of the midſt thereof there ſpringeth up a little fountain of freſh water: In this lake there is engendred Nitre about the riſing of the Dogge-ſtar for nine daies together: then it ſtaieth as long, and beginneth freſh againe to flote aloft: and afterwards giveth over. Whereby it appeareth, that it is the very nature of the ſoile that breedeth it: for it is knowne by experience, That if it ceaſe once, neither heat of Sun nor ſhowers of raine will ſerve or doe any good. Beſides, there is another wonderfull propertie obſerved in this lake, that notwithſtanding the foreſaid Spring or ſource do ſeeth and boile up continually, yet the lake neither riſeth nor overfloweth. But during thoſe nine daies wherein it is given to yeeld Nitre, if there chaunce to fall any ſhowers, they make the Nitre to taſt the more of ſalt. And ſay that the North-eaſt winds do blow the while, the Nitre is nothing ſo good and cleare, by reaſon of the mud mingled withall, which thoſe winds doe raiſe. Thus much of Nitre naturall. I K

As for artificiall Nitre, great abundance there is made of it in Ægypt, but farre inferiour in goodneſſe to the other: for browne and duskiſh it is, and beſides full of grit and ſtones. The order of making it, is all one in manner with that of ſalt, ſaving onely that into the ſalt-houſes they let in ſea water, whereas into the boiling houſes of Nitre they conveigh the water of the river Nilus. Whiles Nilus doth riſe and flow, you ſhall have the ſaid nitre-pits or workhouſes, drie: but as it falleth and returneth againe toward the channell, they are ſeene to yeeld a certaine moiſture, (which is the humor of Nitre) and that for the ſpace of fortie dayes together, with no ſuch reſt or intermiſſion betweene, as there is about Clytæ in Macedonie aboveſaid. Moreover, if the weather bee diſpoſed to raine during that time, they employ not ſo much of Nilus water to the making of nitre. Now ſo ſoone as the ſaid humor beginneth to thicken, preſently they gather it in all haſt, for feare it ſhould reſolve againe and melt in the nitre pits. In this nitre as well as in ſalt, there is to bee found, betweene whiles, a certaine oleous ſubſtance; which is held to bee ſingular good for the farcin and skab of beaſts. The nitre it ſelfe is laid up and piled in heapes, where it hardeneth and continueth a long time. But admirable is the nature of the lake Aſcanius, and of certaine fountaines about Chalcis, where the water above, and which floteth uppermoſt, is freſh and potable; but all beneath and under it toward the bottome, is nitrous. The lighteſt of the nitre and the fineſt, is reputed alwaies beſt; and therefore the fome and froth thereof is better than any other part. And yet for ſome uſes the groſſe and foule ſubſtance is very good, and namely, L M

for

A for the ſetting of any colour upon cloth, and eſpecially the purple die. As touching the vertues of nitre it ſelfe, and how it is emploied many waies, I will write in place convenient. But to return againe to our nitre-pits, and their boiling-houſes, there be of them verie faire and goodly in Ægypt. In old time, they were woont to be about Naucratis and Memphis only; but thoſe at Memphis were nothing ſo good as the other: for there, the nitre lying upon heaps, groweth to the hardneſſe of a ſtone; inſo much, as by this means, you ſhall ſee whole mountains therof like rocks. Of this nitre they uſe to make certain veſſels to uſe in the houſe: and many time they melt it with ſulphur, and boile it over the coles for to give a tincture unto the ſaid veſſels: look alſo when they would keepe any * thing long, they uſe this ſtone-nitre. Moreover, there be in Ægypt other nitre-pits alſo, out of which there iſſueth a reddiſh kind of nitre, reſembling the colour of the earth B from which it ſweateth and ooſeth out. As for the foame of nitre, (which is commended for the beſt of all) the auncient writers were of opinion, that it could not be made but when the dew fell: at what time as the nitre-pits were (if I may ſo ſay) great bellied and full of nitre within, but not readie to be delivered thereof: and therefore if they be neare (as it were) to their time, there can no ſuch froth be gathered, notwithſtanding the dew doe fall. Others there be of this mind, that the ſaid uppermoſt coat or cruſt aloft, is engendred by reaſon of the fermentation of the ſaid nitre: but the moderne Phyſicians of late daies have thought and taught, That * Aphro-nitrum is gathered in Aſia, and found within certain ſoft and grittie caves diſtilling out of rocks: [Theſe caves becauſe they be vaulted and arched over head, the inhabitants call * Cochlacas] which afterwards they doe drie in the Sun: and the beſt is thought that of Lydia. The true marke to know C good ſal-petre, Is to be verie light in hand, exceeding brittle and eaſie to crumble; enclining alſo much to the colour of purple: this is brought from thence to us in trochiſchs. As for the Ægyptian Aphro-nitre or Sal-petre, it commeth in veſſels well pitched, becauſe it ſhould not melt and reſolve into water. Thoſe veſſels alſo beforenamed, ought to be throughly dried and dreſſed in the Sun. As for nitre, the beſt is choſen by theſe marks; namely, if it be paſſing fine and cleare, but withall, ſpongious and verie full as it were of pipes & holes. Many do ſophiſticat it in Ægypt with quickelime; but this deceit may bee eaſily found by the taſt: for the good and true ſal-nitre will ſoone melt and diſſolve at the tongues end; whereas the other that is not right, pricketh and biteth in the mouth: moreover, if it have a ſprinkling of lime among, it carieth a ſtrong ſmell with it. When it is calcined in ſome earthen pot, it ought to be well covered with a lid, leaſt it leap D or flie out; otherwiſe, in the fire it ſelfe, it ſparkleth not nor leapeth foorth: neither groweth any thing elſe in thoſe places where ſal-nitre is engendred, whereas in ſalt-pits graſſe commeth up. As for the Sea, what a number of living creatures breedeth it? and what plentie of reike and weeds beſides? And not only by this argument appeareth it, that there is more acrimonie and ſharpneſſe in ſal-nitre than in ſalt, but alſo herein, That no ſhoes will abide the nitre pits, but preſently fret and weare; for otherwiſe holeſome they be and ſoveraigne for the eyes: neither was it ever ſeen, that any men who handled theſe pits of nitre, and wrought therein, were ever blind. Moreover, this commoditie they have, That if a man come thither having a ſore or ulcer upon him, the ſame will ſoone be healed up and skinned cleane: but if one chaunce to bee wounded or hurt there, long it will be ere he be cured thereof. Salnitre provoketh ſwet, if the bodie be anoin-E ted with it and oile togither; and it maketh the skin ſoft and tender. That which is called Chalaſtræum, ſerveth in lieu of ſalt, in making bread; whereas the Ægyptian nitre is uſed with radiſhes, for it maketh them more tender. As for cates and meats, if they be powdred withall, they will looke white and bee worſe for it: whereas all woorts either for pot or ſallad, will ſeeme the greener.

* As dead bodies.

* This is our Sal-petre.

* Some read *Colycas*.

To come now unto Phyſicke and the medicinable vertues of ſalnitre: hot it is of temperature, and doth extenuat; biting beſides and aſtringent: a great drier it is, and doth exulcerat. In regard of which qualities, emploied it is in thoſe accidents which require either drawing to the exterior parts, or to bee diſcuſſed and reſolved: ſuch alſo as need ſome gentle mordication, or would be lightly extenuated; as meazils, ſmall pocks, wheals, & pimples. Some for this purpoſe, firſt make F it red hot in the fire, and then quench it with ſome auſtere and aſtringent wine: which done, they beat and reduce it to powder, and therewith rub and chauſe the bodie in the bains, without any addition of oile to it: mixed with the pouder of dried flour-delis, & incorporat in green oile olive, it repreſſeth immoderat ſwets: a liniment made therwith & figs togither, doth extenuat the films in the eies; and the aſperitie of the eye-lids it doth ſubtiliat: the ſame operation hath it beſides,

if it bee ſodden in wine cuit to the conſumption of the one halfe: and ſo is it good for the ſpots G
that ariſe in the eyes. The decoction of nitre boiled within the rind of a pomegranat in wine cuit, cure the ſore nailes and the raggedneſſe thereof: and reduced into an ointment with honey, it cleareth the eyeſight: a collution made thereof, ſodden in wine with pepper, eaſeth the tooth-ach, if the mouth and gums be waſhed therwith: ſo doth the decoction thereof with leeks. Burne or calcine nitre into powder, it maketh an excellent dentifrice for blacke teeth, & reduceth them againe to their naturall whiteneſſe: annoint the head with nitre & Terra Samia incorporat togither in oile, it killeth the lice and nits that breed therein: diſſolved in wine, and poured into the ears that run attyr, it cureth them: dtopped into them with vinegre, it eateth and conſumeth the filthie excrements of that part: conveyed drie into the ſaid ears, it diſcuſſeth the ſinging and ringing therein. A liniment made of nitre and Fullers earth, of each a like weight, incorporat with H
vinegre, taketh away the foule morphew, if the skin be annointed therewith: mixed with roſin, or with raiſons of white grapes ſtamped ſtones and all, it draweth uncoms and fellons to an head, and breaketh them: reduced into an ointment with ſwines greace, it preſerveth the genetoirs from inflammation, & cureth them: good likewiſe for the meaſils and ſmall pocks which breake out in all parts of the bodie: put roſin thereto, and incorporat them both in a liniment with vinegre, it healeth the biting of a mad dog, ſo it be taken betimes at the beginning: & in this manner, it cureth alſo the ſores occaſioned by the ſting of ſerpents, eating ulcers, which conſume to the bone; ſuch likewiſe as be corroſive & apt for putrefaction, ſo it be mixed with quicklime and tempered with vinegre. Stampe nitre with figs, and bring it into the forme of a cataplaſme or liniment, it doth much good for the dropſie: the ventoſities cauſing wringings and painfull gripes I
of the belly, it diſcuſſeth, if the decoction thereof be drunke; namely, when to the weight of one dram, it is ſodden with rue, dill, or cumin. Annoint their bodies all over who are wearie, with nitre, oile, and vinegre, you ſhall ſee how effectuall it is to refreſh them and drive away their laſſitude. Rub and chauſe both hands and feet, with nitre & oile wrought togither, it is ſingular good againſt quaking and ſhivering cold: given with vinegre, eſpecially in a fwet, to thoſe who are painted with the jaundiſe, it repreſſeth the itch that troubleth them: if a man bee poiſoned with taking venomous muſhroms, he ſhall find means to avoid the daunger therof by drinking nitre in oxycrat or vinegre and water mingled togither. Hath one ſwallowed down the hurtfull flie Bupreſtis? let him take a draught of ſal-nitre in water, & it will ſave him, for it cauſeth vomit: to thoſe that have drunke bulls bloud, it is uſually given with the ſpice Laſer: incorporat with honey and K
cow-milke, it healeth the breaking out and the exulcerations in the face. Torrifie nitre untill it begin to looke blacke, beat it then to powder and caſt the ſame upon a raw place that is burnt, it will take out the fire and skin it up again: for the paine of the belly and the kidnies, for the ſtiffeneſſe and ſtarkeneſſe of the lims, the grievance alſo of the ſinews, it ſerveth verie well in a clyſtre: lay it to the tongue with bread, it is ſoveraign for the palſie or reſolution of the ſinews: it helpeth thoſe that be ſhort-winded, if they take it in a ptiſan, or with husked barley. The floure of nitre incorporat in Galbanum, and the roſin called terpentine, of ech an equall weight, and reduced into a lohoch, ſo as the patient ſwallow downe the quantitie of a beane at once, cureth an old cough.

* *Vritur*, not *Coquitur*, Ex *Dioſc.*

*Burne or calcine nitre, temper it afterwards with liquid pitch or tar, and give it to drinke, it cureth the ſquinancie. The floure of nitre incorporat with the oile Cyprinum, maketh a pleaſant L
liniment to annoint the bodie withall in the Sun, for the gout or any paine of joynts: drunke in wine, it doth exterminat and drive away for ever, the jaundiſe; it ſcattereth and diſcuſſeth ventoſities; it ſtoppeth bleeding at the noſe, if the patient receive into the noſthrils the vapour of it out of boiling water: mixed well with alume, it riddeth away an itch: foment or bath the arme-pits duly everie day therewith in water, it correcteth the ranke ſmell therof. Make a liniment or cerot of nitre & wax tempered togither, it healeth the ulcers occaſioned by fleame: after which maner, it is good alſo for the ſinews. Being injected by a clyſtre, it helpeth the flux of the belly, proceeding from a feeble ſtomacke. Many Phyſicians have given direction to annoint the bodie all over with ſal-nitre and oile, before the cold fitts of agues: which ointment ſerveth likewiſe for the leproſie, and the unſeemly ſpots or freckles that blemiſh the skin. To ſit in a tub of nitre within the bains, M
and therewith to bath the bodie, is a ſoveraigne thing for thoſe that have the gout, be in conſumption, and either draw backeward with the crampe, or ſtretched and plucked ſo ſtreight and ſtiffe therewith, that they ſeeme all of one entire peece. Sal-nitre, if it bee boiled togither with ſulphur, turneth to be as hard as a ſtone.

CHAP.

A

Chap. xi.

The nature of Spunges.

MAny sorts there be of Spunges, according as I have shewed alreadie more amply in my treatise of water-beasts, and those especially of the Sea, and their severall natures: howbeit some writers distinguish them after another manner, into male and female: for some of them they have thought to be of the male sex, to wit, those which have smaller pipes or concavities, and those growing thicker and more compact, whereby they sucke up more moisture; and these, our delicat and daintie people, die in colours, and otherwhile give them a purple tincture.
B Others they count of the female sex, namely such as have bigger pipes, and the same running throughout one continuitie without interruption. Of the male kind, some be harder than others, which they call Tragos; the pipes whereof are the finest, and stand thickest togither. There is an artificiall devise to make spunges looke white; to wit, if the softest and tendrest of them be taken whiles they be fresh in summer time, and so bathed and soked well in the some of salt: after which they ought to be laid abroad in the moon-shine, to receive the thicke dew or hoarie frosts (if any fall) with their bellies upward into the aire, I meane that part whereby they cleave fast to rocke or sand where they grew, that thereby they may take their whitening. That spunges have life, yea and a sensible life, I have prooved heretofore; for there is found of their bloud settled within
C them. Some writers report, that they have the sense of hearing, which directeth them to draw in their bodies at any sound or noise made, and therewith to squize out plentie of water which they contained within: neither can they easily be pulled from their rocks, and therefore must be cut away; wherby they are seene to shed a deale of bloud, or that which resembleth bloud very neare. Many doe prefer the spunges growing in places exposed to the North-wind, before any other: neither doe any hold and maintaine longer in any place their owne breath, as Physicians doe hold; who affirme, that for this regard they be good for our bodies, namely, If wee entermingle their breath with ours by application: for which purpose, the fresher taken and the moister they be, the better they are thought: but this their operation is lesse perceived, in case they be wet in hot water, and so applied: likewise if they be soked in any unctuous liquor, or bee laid upon any part of the bodie annointed. This also is observed by them, that the thickest of them, to wit, such
D as have the least pipes, sticke not so hard to a place as others. As touching the softest and finest spunges, called Penicilli, if they be applied unto the eyes after they have been soked in honeyed wine, they doe allay and bring downe any swelling in them. The same are abstersive and singular good to clarifie and cleanse the eyes that be given to bleerednesse: but those (I say) ought to be of the finest and softest kind. For to stay the violent flux of rheumaticke humors into the eyes, there is nothing better than to apply spunges of any sort with oxycrat, that is to say, vinegre and water: but with vinegre alone actually hot, they be singular for the head-ach: and otherwise, any spunge that is fresh gotten, doth discusse, mollifie, & mitigat. Old spunges do conglutinat & souder any wounds. Ther is a generall use of all spunges, to wipe & mundifie any place, to foment and bath withall: to keep off the aire also and cover it after fomentation, untill another medecine be
E made readie for to be laid on fresh. Moreover, they be deficcative, and therfore if they be applied unto rheumatick and moist ulcers, and namely in old folke, they drie up the superfluous humors that find a way thither: neither is there any thing so fit for to foment a fracture or greene wound, as spunges. Also, when any part of the bodie is cut off or dismembred, what is so handsom to suck and soke away the bloud quickly, (that the cure may be throughly seen, and the order therof) as a spunge? Furthermore, spunges themselves serve to be laid unto wounds, somtime drie, and sometime dewed or sprinckled with vinegre; one while wet in wine, another while moistned with cold water, and all to defend them from inflammation: but if they be bathed in raine water, and so applied to members new cut, they will not suffer them to swell & impostumat. They are besides laid usually to the sound parts, where no skin is broken, if there be any hidden and secret humor that
F runneth under the place, and putteth it to paine and trouble, such as needeth to bee discussed or resolved: also to impostumes, if they be first annointed with boiled honey. In like manner, for the pain of the joynts they are proper to be applied, one while wet in vinegre with salt, another while dipped in vinegre and water: and if the gout be hot, they would be laid too soked in water onely. The same spunges ought for the dissolving of hard callosities, to be wet with salt water: & against

the ſting or prick of ſcorpions, with vinegre. In the cure of wounds, ſpunges may be uſed in ſtead of unwaſhed greaſie wooll, ſometimes applied with wine and oile, and ſometimes alſo with the ſaid wooll: this onely is the difference, That ſuch wooll doth mortifie, whereas ſpunges doe reſtraine and ſmite back: and yet a facultie they, have to fetch out and ſucke away the filthie excrements, attyr, and quitter, that gather in ſores and wounds. They may bee bound about the bodie of thoſe that have a dropſie, either drie, or elſe wet in warme water of vinegre; according as need requireth, either to goe gently to worke, or to cover and drie the skin. Over and beſides, good it is to apply ſpunges to thoſe accidents and infirmities of the bodie which require evaporation; namely, if they be well ſoked and throughly wet in hote water, and then preſſed and ſtreined between two tables or bourds. After which manner, they are good to be laid unto the ſtomack; and G
in a fever, againſt extremitie of heat. For thoſe that be troubled with the oppilation or hardneſſe H
of the ſplene, there is not a more effectuall remedy, than to apply ſpunges to the place affected, wet in oxycrat or vinegre and water togither: like as for ſhingles and S. *Anthonies* evill, with vinegre onely. But in this application of them, conſideration muſt bee had that they cover the ſound parts alſo round about as well as the other. Spunges wet in vinegre or cold water, ſtaunch any flux of bloud. If there be any place of the skin blacke and blew, upon a freſh or new ſtripe, lay thereto ſpunges well drenched in ſalt water, chaunging them often one after another, & it ſhall recover the naturall colour againe: in which order, they bring downe the ſwelling of the cods, and allay their paine. Beeing hacked and cut ſmall, they ſerve to good purpoſe for to be laid to the biting of mad dogs; ſo that eftſoons and ever and anon they be wet and refreſhed with vinegre, cold water, or honey good ſtore, one with another. The ſpunges of Africke or Barbarie be- I
ing burnt or calcined, doe make ſoveraigne aſhes for to be drunke with the juice of unſet leeks in cold water (ſo there bee put unto a draught thereof, a quantitie of ſalt) by ſuch as caſt or reach bloud upward at the mouth. The ſame aſhes reduced into a liniment, either with oile or vinegre, and ſo applied as a frontall to the forehead, drive away tertian agues. Theſe African ſpunges have this peculiar qualitie, to diſcuſſe any tumors, if they be applied unto them well ſoked in oxycrat or water and vinegre mixed togither. The aſhes of any ſpunges whatſoever, burnt togither with pitch, ſtaunch the bleeding of any wound: and yet ſome there bee, who in this caſe burne thoſe onely with pitch which are of a groſſe and looſe making, and not ſo compact as the reſt. Moreover, for the accidents of the eyes, ſpunges are many times burnt and calcined, in an earthen pot unbaked: and the aſhes which come thereof, doe much good alſo unto the pilling and aſperitie of the eyelids, the excreſcenſe of fleſh, and whatſoever in thoſe parts needeth aſtriction, or otherwiſe to be united, ſowdred or incarnat: and for theſe effects, it is much better to waſh the ſaid aſhes. Furthermore, ſpunges, in friction and rubbing of craſie bodies, may well ſtand in ſtead of currying combs, and courſe linnen cloaths: beſides, they ſerve right handſomly and fitly, to cover and defend the head againſt the extreame heat of the Sun. Moreover, the ignorance of our phyſicians, is the cauſe that all ſpunges be reduced to two onely kinds, to wit, under the name of African, which be of a more tough and firme ſubſtance; and the Rhodiacke, which are ſofter, and therefore meet for fomentations. At this day, the tendreſt and moſt delicat ſpunges are found about the walls of the cittie Antiphellus. And yet *Trogus* writeth, that about Lycia, the ſofteſt ſpunges called Penicilli, do grow in the deep ſea, and namely in thoſe places, from whence other L
ſpunges beforetime had ben plucked and taken away. Finally, *Polybius* doth report, That if ſpunges be hung about the teſter or ſeeling of a bed over ſicke perſons, they ſhall take the better reſt and repoſe all night for it. Now is it time for me to return unto Beaſts of the Sea, and other creatures living and bred in the waters.

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THE

THE XXXII. BOOKE OF THE HISTORIE OF NATVRE, WRITTEN BY C. PLINIVS SECVNDVS.

¶ The Proëme.

Medicines taken from living creatures of the Sea.

HAving so far proceeded in the discourse of Natures historie that I am now arrived at the verie heigth of her forces, and come into a world of Examples, I cannot chuse but in the first place consider the power of her operations, and the infinitnesse of her secrets, which offer themselves before our eyes in the Sea: for in no part else of this universall Frame, is it possible to observe the like majestie of Nature: in so much as we need not seeke any farther, nay we ought not to make more search into her divinitie, considering there cannot be found any thing equall or like unto this one Element, wherin she hath surmounted and gone beyond her owne selfe in a wonderfull number of respects. For first and foremost, Is there any thing more violent than the Sea, and namely, when it is troubled with blustring winds, whirlepuffs, storms, and tempests? Or wherein hath the wit of man been more employed (seeke out all parts of the whole world) than in seconding the waves and billows of the Sea, by saile and ore? Finally, Is there ought more admirable, than the inënarrable force of the reciprocall tides of the Sea, ebbing and flowing as it doth, whereby it keepeth a current also, as it were the streame of some great river?

Chap. I.

Of the fish Echeneis, and her wonderfull propertie. Of the Crampe-fish Torpedo, and the Sea-hare. The wonders of the Red sea.

THe currant of the Sea is great, the tide much, the winds vehement and forcible; and more than that, ores and sailes withall to helpe forward the rest, are mightie and powerfull: and yet there is one little sillie fish, named Echeneis, that checketh, scorneth, and arresteth them all: let the winds blow as much as they will, rage the storms and tempests what they can, yet this little fish commaundeth their furie, restraineth their puissance, and maugre all their force as great as it is, compelleth ships to stand still: A thing, which no cables be they never so big and strong, no ankers, how massie and weightie soever they be, sticke they also as fast and unmooveable as they will, can performe. Shee bridleth the violence, and tameth the greatest rage of this universall world, and that without any paine that she putteth her selfe unto, without any holding and putting backe, or any other meanes, save onely by cleaving and sticking fast to a vessell: in such sort, as this one small and poore fish, is sufficient to resist and withstand so great power both of sea and navie, yea and to stop the passage of a ship, doe they all what they can possible to the contrarie. What should our fleets and armadoes at sea, make such turrets in their decks and forecastles? what should they fortifie their ships in warlike manner, to fight from them upon the sea, as it were from mure and rampier on firme land? See the vanitie of man! alas, how fooliish are we to make all this adoe? when one little fish, not above halfe a foot long, is able to arrest and stay perforce,

perforce, yea and hold as priſoners our goodly tall and proud ſhips, ſo well armed in the beake-head with yron pikes and braſen tines; ſo offenſive and daungerous to bouge and pierce any enemie ſhip which they doe encountre. Certes, reported it is, that in the navall battaile before Actium, wherein *Antonius* and *Cleopatra* the queene were defeited by *Auguſtus*, one of theſe fiſhes ſtaied the admirall ſhip wherein *M. Antonius* was, at what time as he made all the haſt & means he could deviſe with helpe of ores, to encourage his people from ſhip to ſhip, and could not prevaile, untill he was forced to abandon the ſaid admirall and goe into another galley. Mean-while the armada of *Auguſtus Cæſar* ſeeing this diſorder, charged with greater violence, and ſoone inveſted the fleet of *Antonie*. Of late daies alſo, and within our remembrance, the like happened to the Roiall ſhip of the Emperour *Caius Caligula*, at what time as he rowed backe and made ſaile from Aſtura to Antium; when and where, this little fiſh detained his ſhip, and (as it fell out afterward) preſaged an unfortunat event thereby: for this was the laſt time that ever this Emperor made his returne to Rome: and no ſooner was hee arrived, but his owne ſouldiours in a mutinie fell upon him, and ſtabbed him to death. And yet it was not long ere the cauſe of this wonderfull ſtay of his ſhip was knowne: for ſo ſoone as ever the veſſell (and a galliace it was, furniſhed with five banks of ores to a ſide) was perceived alone in the fleet to ſtand ſtill, preſently a number of tall fellows leapt out of their ſhips into the ſea, to ſearch about the ſaid galley, what the reaſon might be that it ſtirred not? and found one of theſe fiſhes ſticking faſt to the verie helme: which being reported unto *Caius Caligula*, he fumed and fared as an Emperour, taking great indignation that ſo ſmall a thing as it, ſhould hold him backe perforce, and checke the ſtrength of all his mariners, notwithſtanding there were no fewer than foure hundred luſtie men in his galley that laboured at the ore all that ever they could to the contrarie. But this prince (as it is for certaine knowne) was moſt aſtonied at this, namely, That the fiſh ſticking onely to the ſhip, ſhould hold it faſt; and the ſame being brought into the ſhip and there laid, not worke the like effect. They who at that time and afterward ſaw the fiſh, report, that it reſembled for all the world a ſnaile of the greateſt making: but as touching the forme and ſundrie kinds thereof, many have written diverſly, whoſe opinions I have ſet downe in my treatiſe of living creatures belonging to the waters, and namely in the particular diſcourſe of this fiſh. Neither doe I doubt but all the ſort of fiſhes are able to doe as much: for this wee are to beleeve, that Pourcellans alſo be of the ſame vertue, ſince it was well knowne by a notorious example, that one of them did the like by a ſhip ſent from *Periander* to the cape of Gnidos: in regard whereof, the inhabitants of Gnidos doe honour and conſecrat the ſaid Porcellane within their temple of *Venus*. Some of our Latin writers doe call the ſaid fiſh that thus ſtaieth a ſhip, by the name of Remora.

As touching the medicinable properties of the ſaid ſtay-ſhip Echeneis or Remora (call it whether you will) a wondrous matter it is to ſee the varietie of Greeke writers: for ſome of them (as I have ſhewed before) doe hold, that if a woman have it faſtened either about her neck, arme, or otherwiſe, ſhe ſhall goe out her full time if ſhe were with child: alſo, that it will reduce her matrice into the right place, if it were too looſe and readie to hang out of her bodie. Others againe report the contrarie, namely, That if it be kept in ſalt and bound to any part of a woman great with child and in paine of hard travaile, it will cauſe her to have preſent deliverance; for which vertue, they call it by another name * Odinolyon. Well, however it be, conſidering that mightie puiſſance which this fiſh is well knowne to have in ſtaying ſhips, who will ever make doubt hereafter of any power in Nature her ſelfe, or of the effectuall operation in Phyſicke, which ſhe hath given to many things that come up by themſelves. But ſay wee had no ſuch evidence by the example of this Echeneis; the Cramp-fiſh Torpedo, found and taken likewiſe in the ſame ſea, were ſufficient alone to proove the might of Nature in her workes, if there were nothing elſe to ſhew the ſame: for able ſhe is to benum and mortifie the arms of the luſtieſt and ſtrongeſt fiſhers that be; yea and to bind their leggs as it were, how ſwift and nimble ſoever they are otherwiſe in running: and how? even by touching onely the end of a pole, or any part of an angle rod, which they hold in their hands, although they ſtand aloft and a great way from her. Now if wee cannot will nor chuſe, but muſt needs confeſſe by the evident inſtance of this one fiſh, that there is ſome thing in nature ſo penetrant and powerfull, that the verie ſmell onely or breath and aire proceeding from it, is able thus to affect, or infect rather the principall lims and members of our bodie; what is it that wee are not to hope for and expect from the vertue of all other creatures that Nature (through her bountie) hath endued with medicinable power for the remedie of diſeaſes?

* *i.* Looſe-throws, or eaſe-paine.

And

A And in very truth, no leſſe admirable be the properties which are reſpected of the ſea-Hare: for to ſome a very poyſon it is, taken inwardly either in meat or drinke: to others againe, the onely aſpect and ſight thereof is as venomous. For if a woman great with child chaunce but to ſee the female onely of this kind, ſhe ſhall ſenſibly thereupon feele a ſicke wambling in her ſtomack, ſhe ſhall preſently fall to vomiting, and anone to untimely labour, and the deliverie of an abortive fruit. But what is the remedie? Let her weare about her arme in bracelets, any part of the male, which ordinarily for this purpoſe is kept drie and hardened in ſalt, ſhee ſhall paſſe theſe daungerous accidents. The ſame fiſh is hurtfull alſo in the ſea, if it be touched onely. Neither is there any living creature that feedeth upon this fiſh, but it dieth thereupon, unleſſe it be the ſea Barbell only: all the harme that this fiſh catcheth by eating of it is this, that the fleſh is more tender by that
B means, and nothing ſo faſt as it was before: beſides, the meat is more unpleaſant, & not ſo much ſet by in the market, nor bought up by Caters for the kitchin. If man or woman chance to be infected by eating of the ſea-Hare, they preſently ſmell and ſent of the ſaid fiſh; and this is the firſt ſigne and argument to prove that they be empoyſoned therby: howbeit, they die not immediatly, but may continue ſo many daies as the ſaid Hare lived after it came out of the ſea. And therefore (according as *Licinius Macer* hath left in writing) this poyſon hath no ſet and prefinit time wherein it killeth any bodie. As touching the ſea-Hares among the Indians, it is conſtantly affirmed, that taken they cannot be alive; and that by way of counterchange, a man is their poyſon: for if he doe no more but touch one of them with his finger in the ſea, it will forthwith die. And it is ſaid withall, that farre bigger he is there than in other ſeas: like as all other beaſts whatſoever.
C King *Iuba* in thoſe bookes which he wrote unto *C. Cæſar*, ſonne to *Auguſtus* the Emperor, as touching the hyſtorie of Arabia, ſaith, That their limpins, muskles, and cockles, are ſo big in thoſe ſeas, that one of their ſhels will containe a meaſure of three hemines. Alſo that there have beene
† knowne Whales ſix hundred foot long, and carrying a breadth of three hundred and ſixtie foot, to have ſhot themſelves out of the ſea into the great rivers of Arabia: the fat of which Whales, (like as the greaſe of all other ſea-fiſhes there) is much ſet by and ſought after by merchants, who in all thoſe quarters uſe it for to annoint their travelling cammels, for to drive away the Breeſe or Gad-bee from them, which indeed cannot abide the ſmell of that oile.

Chap. II.

D *The naturall wit, docilitie, and gentleneſſe of ſome fiſhes. Alſo where they be ſo tractable, that they will take meat at a mans hand. Finally, in what part of the world fiſhes give anſwere by way of Oracle.*

WOnderfull in my conceit is the wit and ſubtiltie of ſome fiſhes, if all bee true which *Ovid* the Poet hath reported of them, in that booke of his which he entituled Halieuticon: For firſt and formoſt he ſaith, That the Goldenie *Scarus* perceiving himſelfe to be taken in a weire, or encloſed within a wicker-net or leape, never ſtriveth to get out againe with the head forward, or to thruſt his muffle betweene the oiſiers, for feare hee ſhould bee caught by
E the head: but turning his taile unto them, keepeth ſuch a flapping therwith, that he maketh himſelfe way by that meanes, and ſo breaketh forth of priſon backward. Now, in caſe whiles he ſtrugleth and laboureth thus to get out, another Goldenie that is without happen to eſpie him thus a priſoner, the ſame will take hold with his mouth of his fellowes taile, and helpe to get him forth out of the ſaid net, which hee endevoured to breake through. Alſo that the ſea pike Lupus, when he ſeeth that he is compaſſed about with nets, maketh a furrow with his taile into the ſands, wherin hee coucheth and lieth cloſe, that when the fiſhers draw their nets unto them, they may glide and paſſe over him. As for the Lampreis, knowing what a ſmooth, round, and ſlipperie back they have, they make no more adoe, but ſeeing themſelves within the net, get betwene the very maſhes, which with their much winding and wrigling they will wreſt wider and wider ſtill, untill they
F be gotten through and eſcaped.

The Poulpe fiſh or Pour-cuttell, maketh at the very fiſh hookes which he ſearcheth after, and thoſe he biteth not at, but claſpeth hard and gripeth round about with his clees and armes that he hath: and never letteth he his hold goe, untill hee hath gnawne and eaten off the bait cleane, unleſſe before he have done, hee perceive that he is like to bee drawne up out of the water by the angle.

angle. The Mullet alſo knoweth that the bait hath a hooke within it, neither is he ignorant that it is laid for to entrap and catch him; howbeit, ſo greedie he is thereof by nature, that he never linneth beating it with his taile, untill he have ſhaken off the meat from the hooke. The Pike is not ſo warie and provident in forecaſt, as to keep himſelfe from the danger of the hook; but of great ſtrength and force he is, when he bethinketh himſelfe and repenteth that he was ſo fooliſh as to be caught: for no ſooner hangs hee by the hooke, but hee runneth and girdeth with it in his mouth too and fro, forcing and wreſting his wound ſo wide, untill the ſaid hooke which had faſt hold on him before, be fallen out of his mouth againe. G

The Lampreies devour the hookes, yea, they gobble in and ſwallow more than ſo, untill they come to the very lines, which they ſet their ſharpe teeth unto, and never reſt untill they have fretted and gnawne them aſunder. And *Pytheas* is mine Authour, who writeth thus of them beſides, That if they find themſelves to be once upon the hooke, they turne their bodies and wryth with their backs, as knowing the ſame to be armed with trenchant and keen edged fins like knives, and ſo with their very ſharpe chine and fins cut the lines atwo. *Licinius Macer* writeth of Lampries, that they be all of the female ſex onely, and doe conceive by ſerpents engendring with them, as I have heretofore obſerved: which is the cauſe, that fiſhers lure them with hiſſing like unto ſerpents, and by that means call them forth of their holes and catch them. He ſaith moreover, That they will feed fat with *milke: and if a man give them a good knocke with a cudgill, they will not die thereupon: rap them onely with a Fennell ſtalke or ſome ſuch wand, you ſhall ſee them dead forthwith. And verely it is held for certaine, that their life lieth in the taile: which if it be ſmitten, they are very ſoone gone and bereft of vitall breath: ſtrike them upon the head, you ſhall hardly and with much adoe kill them. H I

*Lactatu: ſome read *jactatu*, others *luctatu*, with much ſtriving and ſtrugling.

There is a fiſh called a Raſoir: looke whatſoever toucheth it, ſenteth preſently of yron.

Confeſſed it is and knowne for certaine, that the Lompe, Paddle, or ſea-Owle, a fiſh called in Latine Orbis, of all others hath the toughеſt and hardeſt body. Shaped round it is without skales: a man that looketh upon it, would ſay it were all head.

Trebius Niger mine authour affirmeth, That ſo often as the ſea Kite is ſeene to launce himſelfe and flie without the water, *it threateneth tempeſts.

The Sword-fiſh, called in Greeke Xiphias, that is to ſay in Latine Gladius, *i.* a ſword, hath a beake or bill ſharpe pointed, wherewith hee will drive through the ſides and plankes of a ſhip, and bouge them ſo, that they ſhall ſinke withall. The experience whereof is ſeene in the ocean, neare unto a place in Mauritania called Gotta, which is not farre from the river Lixos. And the foreſaid writer *Trebius Niger* reporteth, That the ſea-cats or Cuttle fiſhes, called Loligines, will flie out of the ſea, and ſettle upon ſhips in ſuch multitudes, that they force them under water, and ſo drowne them. K

The Emperour *Cæſar* had many faire houſes of pleaſure in the countrey, where hee kept fiſhes that would ordinarily come to hand and take meat. Our aunceſtors made no ſuch marvell therat, namely, that they ſhould be ſo gentle and tractable in ſmall ſtewes and fiſh-ponds where they be kept to feed: but they have written the like of fiſhes in great lakes and ſtanding pooles: And namely, about Florus, a caſtle in Sicilie, not farre from Syracuſa: Likewiſe, in a well or fountaine of *Iupiter Labradius*, there be yeels will take meat at ones hand, & theſe weare ear-rings alſo about them. Semblably, in Chios neare unto the chappell of the auncients or elders called Veterum Delubrum: as alſo in a certaine ſpring of Meſopotamia, called Cabura, whereof I have alreadie written. As for the fiſhes which keepe about Myræ in Lycia, within the well or fountain of *Apollo*, called Curius, they will ſhew themſelves of purpoſe to give preſage and foreknowledge of things to come: and the manner is, to call them to the top of the water with three whiſtles of a fife or ſuch like pipe. The order is among thoſe that come to be reſolved by them in ſome future events, to caſt peeces of fleſh unto them: if they ſnatch the ſame and ſwim away therewith, it is a luckie and fortunat ſigne, preſaging a good iſſue of their affaires about which they come; but in caſe they reject the ſame, and flurt the meat from them with their taile, that is an ominous token, and foreſheweth ſome unhappie event to follow. About Hierapolis, a citie in Syria, the fiſh within the lake or poole of *Venus*, obey the voice of the wardens or ſextons who have the keeping of her chappell there; and orderly they come at their call, garniſhed with their ornaments of gold about them: they will abide to be ſcratched and clawed, they will wag their tailes like a dogge in a fawning and flattering manner; nay, they will gape with their mouths wide open, and ſuffer them L M

to

A to thruſt their hands or fingers into them. At Stabianum neare to the rocke or cape of *Hercules*, the blacke-tailed ruffles or ſea-breames, which the Greekes name Melanuri, if a man caſt crums of bread into the ſea unto them, they will catch the ſame, and ſcud away withall: throw them any other meat or bait with a hooke in it, they will not once come neare thereto. Neither are theſe to bee reckoned among the leaſt wonders and in the laſt place, namely, That about the Iſland Pele and the citie Clazomenæ, all the fiſh that is, taſteth bitter: Contrariwiſe, thoſe that keepe about the rock Scylla in Sicilie be ſweet, as alſo at Leptis in Affrick, Eubœa, and Dyrrhachium. Again ſome are ſo ſalt, that they may well bee taken for ſalt fiſh that hath lien in brine or pickle, to wit, neare the Iſlands Cephalenia, Ampelos, and Paros: likewiſe about the rockes and cliffes of Delos; and yet in the Bay or haven of the ſaid Iſland, their meat is ſweet ynough. This difference in
B the taſt of fiſh, proceedeth no doubt from the diverſitie of their food. Moreover, *Apion* ſaith, That the greateſt of all other fiſhes is the Mole-bout, which the Latines call Porcus, the Lacedæmonians Orthragoriſcos; and that when he is taken, hee will grunt like an Hog, whereupon it ſhould ſeeme he tooke the name Porcus. But as touching the foreſaid accident of the varietie in the taſt of fiſh, how ſome be ſweet, others ſalt, that it ſhould be a naturall thing (and therefore the more to be marvelled at) appropriat to certaine places, it may appeare by this inſtance, which fitly prooveth the ſame: For take the ſalt fiſh of Italie, what kind ſoever you will, for certaine it is knowne, That at Beneventum they may bee made freſh againe, as if they had never beene ſalted.

That ſea-fiſh hath been uſed at Rome from time to time, and ever ſince the very foundation
C of the citie, it may appeare by the teſtimonie of *Caſsius Hemina*: which I will ſet downe word for word as touching that point, in this very place. King *Numa* (quoth hee) ordained, That fiſhes without skales ſhould not be bought up by Caters for the furniſhing of any ſolemn funerall feaſt. By which inhibition his pollicie and purpoſe was, that the great dinners, as well publicke as privat; the feaſtivall ſuppers alſo which were kept at the ſhrines of the gods, ſhould not bee ſo coſtly and chargeable: for feare alſo leaſt the caters who made proviſion for ſuch ſumpteous feaſts, ſparing for no coſt, nor ſticking at the price were it never ſo high, might foreſtall the markets and buy the ſame up beforehand.

As touching Corall, we (here at Rome) ſet not more by the Indian orient pearles (whereof I have written at large in place convenient) nor eſteeme them at a greater price than thoſe Indians
D doe our Corall. And verely, if we deeme aright, it is the opinion and perſuaſion of people only, that ſetteth the price of theſe and ſuch like things. True it is verely, that there is Corall bred in the red ſea, but blacker it is than that which we have: likewiſe in the Perſian gulfe, and that is named Iace. Howbeit, the beſt ſimply is that which is found in the gulfe of Marſiles in France, about the Iſlands Stœchades: as alſo in the narrow ſeas of Sicilie, toward Helia and Drepanum. There is alſo thereof growing at Graviſcæ, and juſt before Naples in Campaine. But the reddeſt of all other, ſoft and tender withall, and therefore moſt commodious, is engendered about Erythræ in Barbarie. Corall reſembleth a buſh or ſhrub in forme, and of it ſelfe within the water, is of colour greene. The berries thereof under the water be white and ſoft: no ſooner be they taken forth, but preſently they wax hard, and turne red: much like both in ſhape and in bigneſſe to the grains or
E fruit of the gentle garden Corneil tree. It is ſaid that this plant whiles it groweth and is alive, if a man touch it never ſo little, becomes as hard immediatly as a ſtone. The fiſhers therefore to prevent that inconvenience (as knowing the nature thereof) either pluck it up with their nets, or cut it with ſome ſharpe edged yron tooles: which is the cauſe that it is commonly called * Curalium, as ſome make interpretation of the word. The reddeſt Corall is taken to be the beſt: the ſame alſo brauncheth moſt, is not rough and ragged under the hand to feele unto, or ſtone-hard: ſolide likewiſe it is and maſſie, not void and hollow. The berries or beads which it beareth, is of no leſſe account and price with the men of India, than the Indian pearls with our coſtly dames here. And verely among them, their Wiſards, Southſaiers, Prieſts, and Prophets have a religious opinion of them, and attribute great holineſſe to the uſe thereof; as being perſuaded, that whoſoever
F weare them, ſhall be ſecured againſt all perils and daungers whatſoever: and therefore a ſpeciall reckoning they make of them, as well in regard of beautie as devotion. Before that it was known in what eſtimation Corall was with the Indians, the Frenchmen adorned & ſet out their ſwords, targuets, ſhields, morrions, and head peeces therewith: But ſince time that there was a vent into India of this commoditie ſo vendible, great ſcarſitie there is of it, and hardly ſhall a man meet with

* ὅτι ἡ ἀλι κοπεῖ, because it is cut and ſhorne (as it were) in the ſea.

with any Corall, even in that part of the world where it groweth naturally. The branches of Corall hanged about the neckes of infants and young children, are thought to bee a ſufficient preſervative againſt all witchcraft and ſorcerie. Calcined by fire, and ſo reduced into aſhes or pouder and given to drinke in water, it helpeth thoſe who are troubled with the wringing paines of the belly, the greeſe of the bladder, and the diſeaſe of the ſtone. The like effect it hath if it be drunk in wine; or if the patient have a feaver upon him, in water, for to procure ſleep. This would be noted, that Corall doth withſtand the power of fire, and long it is before it be burned and reduced into aſhes. But ſurely a ſingular medicine it is, ſo prepared and uſed, inſomuch as (by report) if a man keepe to it ſtill and continue it long, the ſame will conſume the hardneſſe and ſchirroſitie of the ſpleene. The pouder of Corall is ſoveraign for ſuch as reach and caſt up bloud at the mouth. The aſhes enter into many mixtures and medicines for the eyes: for aſtringent they be, & cooling withall. Hollow ulcers and fiſtulaes they incarnat and fill up againe with new fleſh. Skars and cicatrices they doe extenuat. G H

If I ſhould ſpeake of the repugnancie and contrarietie in Nature (which the Greekes call antipathie) found in many creatures, there is not to be ſeene in the whole world any thing more venomous and adverſe to plants than the Puffens or Forkefiſh of the ſea, called Paſtinaca: for as I heretofore noted, it hath a prick in the tail, which is able to kill any trees that be perced or wounded withall. And yet a concurrent and enemie this hath, which doth perſecute and plague it, and namely the Lamprey called Galeos; ſo eager is it and greedie of the venome and poyſon of that fiſh. There be other fiſhes alſo which it purſueth, but thoſe Puffins eſpecially: and no Weazill hunteth more after ſerpents. In ſumme, whoſoever be hurt or wounded by the ſaid Puffin, this Galeos is a preſent remedie; ſo is the Barble alſo, and the gum Laſer or Benjoin. I

Chap. III.

Of certaine creatures which live as well upon the land as the ſea. Of Caſtoreum, or the genetoirs of a Bever: the medicinable vertues thereof, and other properties obſerved therein.

THe power and majeſtie of Nature is very conſpicuous and viſible, even in thoſe creatures alſo which live indifferently on land and in the water: and namely in the Bevers, which commonly the Phyſicians call Caſtores, like as their ſtones alſo Caſtorea. Some hold, that theſe Bevers when they be neare driven and preſſed by hunters, and at the point to be taken, bite off their owne ſtones. But *Sextius*, who hath written moſt exactly in Phyſicke, denieth it flatly. He ſaith moreover, that theſe cods be ſmall, knit ſhort and truſſed up, ſo as they ſticke cloſe unto the chine bone, and cannot poſſibly be taken from the beaſt but the life goes away withall. By his ſaying alſo they are ſophiſticated; and the kidneies of the Bever which are big, be obtruded and foiſted to us many times in ſtead of their ſtones, which indeed are never found but very little and ſlender. Furthermore hee affirmeth, That they bee not the right ſtones of a Bever when they are ſeene without a twofold burſe or skin, which no living creature hath beſides. In theſe two bags there is found (ſaith he) a certaine oleous liquor, which ordinarily is kept and preſerved with ſalt: And therefore among other markes to know falſe and ſophiſticat Caſtoreum is this, If you ſee a paire of cods, hanging (as it were) knit together by one ſtring in one bag. And yet the beſt may be falſified by the fraud and cunning of ſuch as put gum thereto with ſalt Ammoniack, becauſe the true Bevers ſtones ought to beare the colour of Ammoniacke; to bee encloſed alſo within their ſeverall tunicles; and to lie in a certaine liquour reſembling cereous honey, ſtanding much upon wax; to have a ſtrong and ranke ſmell, a bitter, hote and fierie taſt; and withall, apt to crumble betweene the fingers. The beſt Caſtoreum and moſt effectuall, is brought out of Pontus and Galatia: next to it is that of Affricke or Barbarie. The vertue of Caſtoreum is to provoke ſneeſing, if a man hold it to his noſe and ſmell thereto. If the head bee annointed with Caſtoreum incorporat with oile of roſes and Harſtrang, it will procure ſleepe: ſo will it doe alone by it ſelfe given in water to drinke: in which reſpect, proper it is for the phrenſie. And yet the perfume or vapor thereof will raiſe thoſe that lie in a ſleepie lethargie: like as a ſuffumigation* or peſſarie put up into the naturall parts of women, is ſoveraigne for the riſing of the mother; in which fit they lie as it were in a traunce and out of the world. Caſtoreum given to the weight of two drams with Peniroyall in water to drinke, moveth womens monthly ſickneſſe, and forceth the afterbirth to come away. It K L M

* *Vulvarumque examinationes vel ſubdici.* We practiſe the contrarie.

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A helpeth those that have the dizzinesse or swimming of the braine; bee drawne backward with crampes, tremble and shake: are plucked with spasmes and convulsions, diseased in their sinewes, troubled with the Sciatica, sicke of a weake and feeble stomacke that keepeth nothing which it takes, and lie bedred of the palsie, if they be annointed throughly therwith in parts convenient. Or if Castoreum be reduced into pouder, and together with the seed of Agnus Castus, bee incorporat with vinegre or oile rosat, and so reduced to the consistence of honey: which beeing taken as an electuarie, is singular not onely for the former maladies, but also for the falling sickenesse: and if the same be given in drinke, it discusseth ventosities, appeaseth the wrings and torments of the bellie, yea, and represseth the mallice of any poysons. But in this case of poysons it ought to be prepared, mixed, & used diversly, according to the sundrie kinds thereof: for against
B the venome of scorpions it would be drunke in meere wine: to withstand the danger of the Phalangia and such venomous spiders, it ought to be given in honied wine especially, if the intention be to cast up the said poysons by vomit; or with Rue, if the drift and purpose bee to hold and retaine all still. To prevent the perill of the Lizards or venomous wormes Chalcidicæ, it should be taken in Myrtle wine. Against the sting of the horned serpent Cerastes, or the fierie vermine Prester, with Panax or Rue in wine. But generally for all other serpents, the only liquor to receive it in, is wine. Two drams at a time is thought to bee a sufficient dose of Castor it selfe, in any of these compositions: but of other drougs that are put thereto, there ought to be a proportion of the halfe, to wit, one dram. Moreover, a peculiar vertue it hath, if it be drunke in vinegre, to resist the venomous gum Ixias, growing upon the plant Chamæleon: but soveraigne it is for the poy-
C son of the hearbe Aconitum or Libard bane, in milke or faire water. Against white Ellebore it is good to be taken with mead of honied water and salnitre. Also, if it bee pulverized and incorporat with oile, a soveraigne remedie it is to ease the toothach, if it bee dropped or poured into the eare of the same side where the greefe is: but better it were to temper it with the juice of Poppie for paine of the eares. Mix Castoreum with the best honey of Attica, and bring it into an eye-salve, it is passing good for to cleare the sight. Given in vinegre, it staieth and keepeth downe the yex or hicquet. Furthermore, the urine of a Bever is a good countrepoyson: and therfore it goeth to the making of antidots and preservatives. But the best way of keeping it (as some thinke) is in the owne bladder.

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Chap. IIII.

Of the Tortoise. The medicines taken from many fishes, and diverse observations to them pertaining.

Semblably, Tortoises live in two places, and haunt both land and waters. Their effectuall properties besides are such as deserve like honour, as well in regard of their manifold uses in sumptuous buildings (whereby they carie a great price) as of their sundrie vertues & operations which Nature hath given them. Now of these Tortoises there be many kinds, to wit, land Tortoises, and sea Tortoises. Tortoises found in muddie waters and marraies: Tortoises also that keepe in fresh river water; and these last named, some Greeke writers call Emydes. The flesh of
E land Tortoises serveth well in perfumes & suffumigations, for so it is as good as a countercharme to put by and repell all sorceries and enchantments: a singular countrepoyson also to resist any venome whatsoever. Great store of Tortoises bee found in Affricke: where they use to cut away the head and feet, and then employ the rest of the bodie as a soveraigne remedie against all poysons. If their flesh be eaten together with the broth wherein they are sodden, it is held to be very good for to discusse and scatter the wens called the kings evill, and to dissipat or resolve the hardnesse of the swelled spleene: likewise to cure the falling sickenesse, and to drive away the fits therof. The bloud of Tortoises clarifieth the eyesight & dispatcheth the cataracts, if they be annoin-
ted therewith. Many incorporat the said bloud in meale, and keepe them reduced into the forme of pils; which when need requireth, they give in wine as a present helpe for the poyson of all ser-
F pents, spiders, and such like, yea, and the venome of toads. The gall of Tortoises mixed with Atticke honey, serveth to cure the fierie rednesse of the eyes, if they bee annointed therewith: the same is good to be dropped into the wounds inflicted by the prick of scorpions. The ashes of the Tortoise shell incorporat with wine and oile and so wrought into a salve, healeth the chaps & ulcers of the feet. The skales scraped lightly from the upper part of the shell given in drinke, coole

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the heat of luſt. And I marvell the more hereat, becauſe the pouder of the whole ſhell indeed G
hath the name to heat the appetite and deſire to venerie. As touching their urine, I hold it unpoſſible to meet with the ſame, unleſſe it bee found in their bladder when they bee cut in twaine. And yet the Magicians hold this to be one of the moſt rare things in the world, and that which worketh wonders, ſaying it is right ſoveraigne for the biting or ſtinging of the Aſpis, howbeit, much more effectuall (ſay they) if punaiſes bee mixed with it. Tortoiſe egges dried and hardened, are good to be applied to the wens called the kings evill; to any exulcerations, cauſed either by extreame cold or burning: The ſame being ſoft, are ſingular to be ſupped off in the pain of the ſtomacke.

The fleſh of ſea Tortoiſes mixed and incorporat with the fleſh of Frogs, is a ſoveraign remedie againſt the venome of Salamanders: neither is there any thing more contrarie in nature to H
the Salamander, than is the Tortoiſe. The bloud of the ſea Tortoiſe ſerveth to recover haire in places naked and bare, by occaſion of the diſeaſe called Alopecia: it riddeth away likewiſe the ſkales and dandruffe, yea, and healeth all the ſkalds of the head: But the ſame muſt drie upon the head and be waſhed off at leaſure by little and little. If it bee dropped into the eares with breaſt-milke, it eaſeth their paine. If it be chewed or eaten, tempered with the fine flower of Wheat, it cureth the falling ſickneſſe. But for the better preparing and ordering of this bloud in theſe caſes, it ought to be mingled in three hemines of vinegre, one hemine of wine put thereto, with an addition alſo of Barley meale, and the ſame tempered with vinegre: Of which compoſition the patient is to take and ſwallow downe the quantitie of a Beane every day, morning and evening; and after ſome daies paſt, in the evening onely. This bloud is likewiſe ſingular to be dropped into I
the mouths of thoſe that be fallen of the epilepſie or falling ſickneſſe, ſo the fit be but ſmall, for which purpoſe they muſt be forced to gape. In caſe of crampes and convulſions, the ſame is to be clyſterized with Caſtoreum. Whoſoever rubbeth their teeth with Tortoiſe bloud and uſe ſo to doe a whole yeare together, ſhall bee freed from the paine thereof for ever. If it bee mixed with Barley groats, and given to them that draw their wind ſhort, it diſcuſſeth the cauſe of that difficultie, yea, helpeth ſuch as cannot breath but ſitting upright. The gall of Tortoiſes cleareth the eyeſight, it dooth ſubtiliat the cicatrices and filmes that grow in the eyes: the inflammation of the tonſils it repreſſeth, aſſuageth the ſquinancie, and helpeth all the accidents of the mouth: and more peculiarly, a propertie it hath to heale the cankerous and corroſive ſores there breeding: as alſo to cure the inflammation of the genetoirs. The ſame conveighed up into the noſthrils, fetcheth thoſe againe to themſelves who are in a fit of the falling ſickneſſe, and ſetteth them upright upon their feet. And with the ſlough of a ſerpent incorporat in vinegre, and dropped into the eares that run, it is an excellent medicine to ſcoure them. Some put a Bœufes gall among, together with the broth of the Tortoiſe fleſh ſodden, and an addition of a ſnakes ſlough in equall quantitie; but firſt they ſeeth the ſaid Tortoiſe a long while in wine. Moreover, the gall of Tortoiſes mixed with honey, amendeth all the imperfections incident to the eyes, if they be annointed therewith: yea, if it were a cataract, the gall of a ſea Tortoiſe tempered with the bloud of a river Tortoiſe and womans milke, riddeth and ſcoureth it away. The ſaid gall is very proper to give a yellow die or colour to womens haire. Againſt the poyſon of Salamanders, ſufficient it is to drinke the broth or decoction of a Tortoiſe. K L

As touching thoſe kind of Tortoiſes that live and breed in mud and moorie waters, which I reckoned to be the third kind: broad they be and flat in the backe as well as upon the breaſt; neither doth their ſhell ariſe archwiſe in manner of a vault: Theſe are illfavoured to ſee to, and yet as loveleſſe as they be, they are not without ſome medicinable vertues and remedies: for take three of them and throw them into a fire made of Vine twigs, or their cuttings; when their ſhels or covers begin to devide in ſunder and part one from another, pull them haſtily out of the fire, plucke the fleſh out of their ſhels, ſeeth them in a gallon of water, with a little quantitie of ſalt put thereto; thus let them boile untill a third part of the liquor be conſumed: This broth or decoction if it be drunken, is thought to bee ſoveraigne for thoſe that bee troubled either with the palſie, gout, or paine of joints. The gall of theſe Tortoiſes purgeth alſo phlegmatick humors and M
corrupt bloud out of the bodie. And after that this medicine hath done his part, and ſet the bellie in a looſeneſſe, a draught of cold water knitteth it againe and ſtaieth all.

To come now unto the fourth kind of Tortoiſes which keepe in freſh rivers, they affourd an excellent remedie for to rid away a quartane ague, in this manner prepared and uſed: Firſt take

certaine

A certaine tortoiſes, devide one peece from another and take out the fat within, ſtampé the ſame with the hearbe called houſleeke and lineſeed; incorporat all into an ointment; let the patients be annointed herewith before the fit commeth, all over the bodie ſave the head only; and when they be well lapped with cloaths about them, give them ſome hot drinke: This (I ſay) is thought to be a ſoveraigne medicine againſt the ſaid ague. But a tortoiſe to be emploied for this purpoſe, ought to be taken at the full of the moone, becauſe there may be more fat found in her: marry the ſicke bodie muſt not bee annointed (men ſay) at any time, but two daies after. The bloud of tortoiſes which are of this fourth kind, if it be dropped upon the head by way of embrochation, appeaſeth the head-ach that uſeth to returne and come often by fits: the ſame alſo applied unto the kings evill, cureth it. Some are of opinion, that the better to let tortoiſes bloud and accor-
B ding to Art, (as requiſit it is in theſe caſes of phyſicke) they ought to be laid along with their bellies upward, and ſo their heads to bee cut off with a braſen knife: and then they give order, to receive the bloud in a new earthen veſſell, never occupied before: which bloud, is excellent to annoint the ſhingles, or any kind of S. *Anthonies* fire: likewiſe the running ſcalls of the head, and alſo werts. The ſame authours doe promiſe and warrant, that with the dung of all ſorts of tortoiſes, the biles called Pani may bee diſcuſſed and reſolved. And although it bee incredible and not to be ſpoken, yet ſome there be who have written, That any ſhip maketh way more ſlowly at ſea, that carrieth within it the right foot of a tortoiſe. And thus much ſhall ſuffice as touching tortoiſes.

And now from henceforth as touching the fiſhes and other water creatures, I meane to diſ-
C courſe of them and their medicinable properties, according to everie diſeaſe which they ſerve for: And yet I am not ignorant, that many a one will be deſirous to know all at once, the vertues of ech living creature, which indeed maketh them to ſeeme more admirable a great deale. Howbeit, this courſe that I meane to take, I hold to bee more expedient and profitable to this life; namely, to ſet downe receits and remedies digeſted by order, of each diſeaſe and maladie: conſidering that one thing may be good for this patient, and another for that; and ſome medicines are ſooner found and gotten, than others.

Chap. V.

D *Sundrie medicines and receits taken from thoſe living creatures which converſe in waters, and the ſame digeſted orderly into diſeaſes. And in the firſt place, ſuch as be appropriat to poiſons and venomous beaſts.*

HEretofore have I written of venomous honey, and the countries wherein ſuch is gathered and made: now, if any be poiſoned therewith, good it is to eat the fiſh called Aurata, *i.* a Guilt-head: or ſay that one bee glutted with pure honey, or have taken a ſurfet thereof, which of all other is moſt daungerous, whereby the appetit is cleane gone, and the ſtomacke oppreſſed with crudities: for to prevent farther daunger, *Pelops* ordained for a ſpeciall antidot or
E detenſative, the meat of tortoiſes boiled, after the head, feet, and taile, were cut away: But *Apelles* in this caſe attributeth as much to Scincus. Now what this Scincus is, I have declared heretofore. Shewed alſo I have often times in many places, how venomous the monthly fleurs of women are: but yet (as hath been ſaid alreadie) the fiſh called a Barble, is a ſingular remedie againſt the venome thereof: like as, both applied outwardly in a liniment, and taken inwardly as meat, it is a ſoveraigne thing for the pricke of the Puffin or Forkfiſh, of Scorpions as well of the land as the ſea, and of the malicious ſpiders Phalangia. The aſhes of a Barble, freſh taken and calcined, is a generall countrepoiſon; but more particularly it helpeth thoſe who have eaten deadly muſhroms. Moreover, it is ſaid, That if the fiſh called a Sea-ſtar, well beſmeared and annointed all over
F with the bloud of a fox, be faſtened to the lintell, or hanged to the braſen naile or ring of a dore, it will put by all charms, ſorceries, and witchcrafts, that none ſhall come into the houſe; or if any doe, yet they ſhall not worke any harme. As for the prick or ſting of ſea-dragons and ſcorpions, a cataplaſme of Sea-ſtars fleſh applied thereto, healeth them: ſo it doth alſo the venomous bit of ſpiders. In ſum, the broth of their decoction is thought to bee a ſoveraigne remedie againſt all

manner of poiſons; whether it be that a man have taken it by the mouth, or bee ſtung and bitten G
by any venomous beaſt.

As touching fiſhes kept in ſalt, they are not without their medicinable vertues: for to eat ſalt-fiſh, is verie good for them who are ſtrucken with ſerpents, or otherwiſe bitten or ſtung by any venomous beaſt, ſo they drinke to it eftſoons pure wine of the grape, and withall be ſure to caſt up againe by vomit toward evening their foreſaid meat which they did eat that day. The ſame ſaltfiſh more peculiarly ſerveth for them who have been hurt and wounded with the venomous
* or *Chalcidica.* lizard * Chalcis, the horned ſerpent Ceraſtes, or the venomous horne-fretters called Sepes: being otherwiſe ſingular to heale thoſe who have ben ſmitten with the ſerpent Elops, or bitten with the thirſtie tooth of the worme Dipſas: but if a man be pricked by the ſcorpion, good it is for him to feed fully of ſaltfiſh, howbeit in no wiſe to vomit the ſame up again, but rather to endure H
the drineſſe and thirſt occaſioned thereby: and many hold, that it is a proper remedie to applie unto the ſore, a cataplaſme made of the foreſaid ſaltfiſh. Verely againſt the biting of crocodiles, there is not thought to be a more preſent and effectuall remedie, than it. But to grow unto particulars, Sprots ſalted have a ſpeciall propertie to heale the biting of the beetle or venomous flie Preſter: alſo in caſe a man be bitten with a mad dog, it is verie good to lay ſaltfiſh unto the ſore: yea though the wound were not cauterized with a red hot yron, nor the patients bodie emptied by a clyſtre, this cataplaſme alone of ſaltfiſh is thought ſufficient to cure it: the ſame ſoked in vinegre, ſerve alſo to be laid unto the place that is hurt with a ſea-dragon. Of the ſame operation
* *Cybium.* and effect is a * ſquare peece or canton of the fiſh Tunie ſalted and condited. And ſince I have named the ſea-dragon, this would be noted, That himſelfe outwardly applied, is a remedie for I
the venome inflicted by the pricke or finne of his ridge-bone, wherwith his manner is to ſtrike: yea and his verie brains alſo, if you take nothing els, are as effectuall. The decoction of ſea-frogs ſodden in wine and vinegre, is a ſoveraigne drinke for all poiſons, but eſpecially for the venome of the hedge-toad and ſalamander. As for the froggs of rivers and freſh waters, if a man either eat the fleſh or drinke the broth wherein they were ſodden, he ſhall find it verie good againſt the poiſon of the ſea-hare, or the ſting of ſerpents abovenamed: but more particularly againſt the pricke of ſcorpions, they would bee boiled in wine. Moreover, *Democritus* ſaith, that if a man take out the tongue of a frog alive, ſo that no other part thereof ſticke thereto, and after he hath let the frog goe againe into the water, apply the ſaid tongue unto the left pap of a woman whiles ſhe is aſleepe, in the very place where the heart beateth, ſhee ſhall anſwer truly and directly in K
her ſleepe, to any interrogatorie or queſtion that is put unto her. But the magicians tell more woonders than ſo of the frogg; which if they bee true, certes froggs were more commodious and profitable to a common-wealth, than all the poſitive written lawes that wee have: for they would make us beleeve, that if the husband take a frogg and ſpit her (as it were) alength upon a reed, ſo as it goe in at the skut or mature behind and come foorth againe at the mouth; and then pricke the ſaid reed or broch in the menſtruall bloud of his wife, ſhe will never have mind afterwards to entertaine any adulterers, but deteſt and loath that naughtie kind of life. Certein it is, that if frogs fleſh be put within a net, or that a hooke be baited therewith, Purple fiſhes above all others, will come flocking thither. Moreover, it is commonly ſaid, that a frog hath a double liver, which ought to be laid before ants; and looke which of the two lobes or flaps there- L
of they make unto and ſeeme to gnaw, the ſame is a moſt ſingular antidot againſt all poiſons whatſover.

Some frogs there be that live onely among buſhes and in hedges, which thereupon wee call
Our toads. in Latine by the name of * Rubetæ, and the Greeks tearme them Phrynos: the biggeſt they are of all other, with two knubs bearing out in their front like horns, and full of poiſon they be. They that write of theſe toads, ſtrive a-vie who ſhall write moſt wonders of them: for ſome ſay, that if one of them be brought into a place of concourſe where people are in great number aſſembled, they ſhall be all huſht, and not a word among them. They affirme alſo, that there is one little bone in their right ſide, which if it be throwne into a pan of ſeething water, the veſſell will coole M
preſently and boile no more, untill it be taken forth againe. Now this bone (ſay they) is found by this means: If a man take one of theſe venomous froggs or toads, and caſt it into a neſt of ants for to bee eaten and devoured by them, and looke when they have gnawed away the fleſh to the verie bones, each bone one after another is to be put into a kettle ſeething upon the fire, and ſo

A it will be ſoone knowne which is the bone, by the effect aforeſaid. There is another ſuch like bone (by their ſaying) in the left ſide; caſt it into the water that hath done ſeething, it will ſeeme to boile and waulme againe preſently: this bone (forſooth) is called Apocynon: and why ſo? becauſe ywis, there is not a thing more powerfull to appeaſe and repreſſe the violence and furie of curſt dogs, than it. They report moreover, that it inciteth unto wanton love; and yet natheleſſe if a cup of drinke bee ſpiced therewith, it will breed debate and quarrels among thoſe that drinke thereof: alſo, whoſoever carrieth it about him, ſhall be provoked to fleſhly luſt: and contrariwiſe, if the bone in the right ſide bee likewiſe uſed, it will coole as much, and take downe the pride of fleſh and heat of concupiſcenſe. Others there be who are of opinion, that if it bee but worne about one, either hanging to the necke, or faſtened unto any other part of the bodie, enB folded within a little peece of a new lambs skin, it will cure a quartan ague, or any other fever beſides. The ſame alſo repreſſeth the affection of love. Moreover, they beare us in hand, that the milt of theſe toads is a countrepoiſon againſt their owne venome: but the heart (ſay they) is much more effectuall.

There is a certaine kind of ſerpent or ſnake haunting the water, called in Latine Coluber; the fat and gall of which ſerpent, if they have about them who uſe to hunt after crocodiles, it is woonderfull (ſay they) how they bee armed and defenced againſt them; for they will not attempt to turne againe upon the hunters and give any aſſault: and yet of greater effect and force they ſhall find it, in caſe there bee incorporat withall, the pond-weed or water-ſpecke called Potamogiton.

C The river Creifiſhes, if they be taken freſh, ſtamped and given in water to drinke, are ſoveraigne againſt all poiſons: ſo is their aſhes alſo a countrepoiſon; but more particularly againſt the ſting or pricke of ſcorpions, if it bee drunke in aſſes milke; or for default thereof, in goats milke, or any other whatſoever: but then the patient ought to drinke wine upon it. And verely, ſo adverſe and contrarie are they unto ſcorpions, that if they bee punned with baſill into a certaine compoſition, it will kill them, if the ſame bee but laid upon them. Of the ſame force they are againſt the ſting or biting of any other venomous beaſt beſides, and more eſpecially of the pernicious hardiſhrew Scytale, of ſnakes, ſea-hares, and hedge-toads. Many there be who uſe to ſave the aſhes of Creifiſhes calcined, as a ſoveraigne remedie for all ſuch as be in daunger to fall into the ſymptome of fearefulneſſe to drinke, incident to thoſe that are bitten by mad dogs:
D ſome add thereto the hearbe Gentian, and give both togither in wine to drinke: but if the ſaid ſymptome of Hydrophobie have ſurprized them alreadie, then the ſaid aſhes or powder ought to be reduced (by the means of wine) into troſches or pills, which they preſcribe unto their patients for to be ſwallowed downe. The magicians proceed farther and affirme, that if a man take ten Creifiſhes and tie them all togither with a good bunch or handfull of baſill, all the ſcorpions that bee thereabout, will aſſemble togither to that one place: and they give order, that if a man be hurt alreadie with a ſcorpion, there ſhould bee a cataplaſme made of them, or at leaſtwaies of their aſhes mixed with baſill, and ſo applied to the place affected. The Sea-crabs are nothing ſo good of operation in all theſe cauſes, as the Land-crabs or Creifiſhes aforeſaid, according as *Thraſillus* mine author doth report. Howbeit, hee ſaith nevertheleſſe, that there are
E no ſuch enemies to ſerpents, as Crabs: and hee affirmeth moreover, That if ſwine be ſtung or hurt by ſerpents, they helpe and cure themſelves by feeding upon Sea-crabs onely, and ſeeke for no other helpe or remedie. Hee addeth furthermore and avoucheth, that ſerpents are ill at eaſe yea and much tormented with paine when the Sun is in the ſigne of the Crab, called commonly Cancer.

To come now to the river ſhell-ſnailes: moſt certaine it is, that their fleſh, whether it bee raw or boiled, is ſingular good to reſiſt the venome of ſcorpions inflicted by their pricke or ſting: and ſome there be, who for to have them in a readineſſe to ſerve in theſe caſes, keepe them in ſalt: and they ordaine them to be applied unto the very ſore it ſelfe, occaſioned by their fore-
F ſaid ſting.

As for the [blacke] fiſhes named Coracini, they are peculiar and appropriat unto the river Nilus: howſoever my determination and purpoſe is to deliver medecines profitable and beneficiall to all parts of the earth in generall. Their fleſh is good to be applied unto the ſores cauſed by ſcorpions.

The Sea-ſwine or Porpuis, hath prickie finns upon his backe, and thoſe are counted among other venomous things that the ſea yeeldeth, putting them to much paine that are wounded or hurt thereby: but what helpe therefore? ſurely the verie muddie ſlime that gathereth about the bodie of the ſame fiſh, is the onely remedie. G

The Sea-calfe, otherwiſe named a Seale, hath a certaine greace, wherewith it is good to annoint the face or viſage of thoſe, who by reaſon that they are bitten with a mad dog, are afraid to drinke and cannot away with water: but it will worke the better, if there be mingled therewith the marrow of an Hyæna, the oile of the maſtich tree and wax, that all may bee reduced into a liniment.

As for the biting of a Lamprey, there is not a better thing to heale it than the aſhes of a lampreys head. The Puffin likewiſe or Forke-fiſh, cureth the wound that himſelfe inflicted; namely, if the place be annointed with his owne aſhes, tempered with vinegre, or mixed with the aſhes of any other fiſh. If a man would make meat of this fiſh, there ought to be taken out of the backe whatſoever is there found like unto ſaffron: likewiſe the head all and whole would be taken away: and yet to maintaine and keepe the taſt thereof, the ſame muſt be waſhed but a little and no more than all ſhell fiſhes, for otherwiſe all the pleaſantneſſe in the eating would be cleane gone. H

The miſchievous venome of the Sea-hare, [called otherwiſe Imbriago] is quenched cleane and mortified, by taking the fleſh of the Sea-horſe any way in drinke.

Againſt the poiſon of deadly dwale, the meat of ſea-urchins is ſoveraign: and whoſoever have drunke the daungerous juice of * Carpaſum, find much eaſe and helpe eſpecially by ſupping their decoction. To conclude, the broth of ſea-crabs likewiſe taken, is thought to be effectuall againſt the foreſaid dwale, named Dorycnium. I

*Named afterward *Opocarpaſum*.

Chap. vi.

Of Oiſtres and Purple ſhell-fiſhes: of Sea-moſſe, or Reits: and the remedies which they affourd.

MOreover, Oiſters have a ſpeciall vertue to reſiſt the venome of the Sea-hare. And albeit I have written already of Oiſters, yet me thinks I cannot ſpeake ſufficiently of them, ſeeing that for theſe many yeers they have ben held for the principall diſh & daintieſt meat that can be ſerved up to the table. This fiſh loveth to have freſh water, and joyeth to be in thoſe coaſts where moſt rivers doe run into the ſea: which is the reaſon, that few of them are found in the deep, called thereupon Pelagia; and thoſe thrive not, but are in compariſon very ſmall. Howbeit, they breed and engender otherwhiles among rocks, & in ſuch holes which want the recourſe of ſweet waters; as for example, about Grynia and Myrina. They wax big and full according to the encreaſe of the moone, as I have ſhewed alreadie in my treatiſe of creatures living in waters: but principally about the ſpring prime, when they be full of a certaine humor or moiſture like unto milke; and in thoſe ſhallow places where the Sun pearceth with his beams to the very bottome of the water. And this ſeemeth to be the reaſon, that in other coaſts and parts of the ſea, they be found far leſſe: for ſhade hindreth their growth, and for want of the cheerefull ſight of the Sun, they have leſſe appetit to meat and feed not. Moreover, this is to be noted, that oiſters differ one from another in colour. In Spaine they be reddiſh; whereas in Sclavonia they be browne & duſkiſh: but about the cape Circeij in Italie, their ſhell and fleſh both, bee blacke. In what coaſt or countrey ſoever they be found, the beſt and principall thoſe are held to be, which be maſſie and compact; not glib and ſlipperie without, with their owne humor and moiſture: and rather bee they choſen which are thicke, than broad and flat: ſuch alſo as be taken neither in muddie nor yet in ſandie places, but upon the ſound and firme ground in the bottome; having their white meat truſſed up ſhort and round, and not flaggie as fleſh: the ſame not jagged and fringed about in the edges with ſmall ſtrings, but lying all cloſe united togither as it were couched within the belly. They that be more expert and practiſed in the choice of oiſters, add one marke more to chuſe them by, namely, if there be a purple thread or ſtring that compaſſeth them about the edges: and by this ſigne they know the oiſters of the beſt kind and race, from others, and call them by a proper name Calliblephara. Oiſters delight (as I may ſo ſay) to travaile into ſtraunge quarters, to be tranſported from their naturall ſeat into other unknowne waters. Thus the oiſters bred about Brindis, and remooved from thence to the lake Avernus; and beeing there fed, are ſuppoſed K L M

A posed by that means to keepe ſtill their own native juice and humiditie, and beſides to gain nouriture by the moiſture of Lucrinus. Thus much as touching the ſubſtance and bodie of Oiſters: it remaineth now to ſpeake of thoſe parts and tracts where the beſt oiſters are to be had; to the end that ſuch coaſts may not be defrauded of the honour due and appertaining unto them. But of this point ſpeake I will by the tongue of another, and alledge his ſpeech who is thought to have written hereof with beſt judgement of any man in our time. Theſe therefore bee the verie words of *Mutianus*, which I will put downe as followeth: The oiſters (quoth he) of Cyzicum taken about the ſtreights of Callipolis, bee the faireſt of all other, and bigger than thoſe which are fed or bred in the lake Lucrinus, ſweeter than thoſe of Britaine, more pleaſant in the mouth than the Edulian, quicker in taſt than theſe of Leptis, fuller than the Lucenſian, drier than thoſe
B of Coryphanta, more tender than the Iſtrian, and laſt of all, whiter than the oiſter of Circeij: and yet there have not been found any oiſters either more ſweet or tender than theſe laſt named. The hiſtoriographers who wrote of *Alexanders* voiages and exploits, have left in writing, That within the Indian ſea there be oiſters found a foot long every way. Moreover, there is among us a certain Nomenclator or Controller belonging to one of our prodigall and waſtfull ſpendthrifts here at Rome, who have given a proper name to certaine oiſters, and tearmed them Tridacna; his deſire was by that ſignificant name, to expreſſe thus much, That they were ſo big as that they would make three good bits or mouths-full apeece.

Now proceed I will to their medicinable vertues, and before I goe any further, in this verie place ſet downe how far forth they ſerve in phyſicke. Firſt and foremoſt, they bee the onely meat
C to comfort and refreſh a decaied ſtomacke: they recover an appetit that was cleane gone. But ſee the practiſe of our delicat wantons! to coole oiſters forſooth, they muſt needs whelme and cover them all over with ſnow; which is as much as to bring the tops of mountains and bottom of the ſea togither, and make a confuſed medley of all. This good moreover doe oiſters, that they gently looſe the belly, and make a bodie ſoluble: ſeeth the ſame with honyed wine, they cure the Tineſmus, which is an inordinat and bootleſſe deſire to the ſtoole without doing any thing, eſpecially if the tiwill (which is the place affected) be not exulcerat. Oiſters likewiſe ſo prepared, clenſe and mundifie the ulcers of the bladder: eat them in their ſhell with their water, as they came cloſed and ſhut from the ſea, you ſhall find them wonderous good for any rheums or diſtillations.
3 The aſhes of an oiſter ſhell calcined, and incorporat with honey, be ſingular for the paine of the
D uvula, and aſſuage the inflammation of the tonſils: ſemblably, they repreſſe the ſwelling kernels that riſe under the ears, aſſuage the biles and botches called Pani, mortifie the hard tumours of womens breaſts, and heale the ſores or ſcalls of the head, if they be applied accordingly with water: and in the ſame order prepared, they rid away wrinkles, and make womens skin to lie ſmooth and even. Theſe aſhes are a ſoveraigne powder to be caſt upon any place that is raw, by reaſon of a burne or ſcalding: and the ſame is commended for an excellent dentifrice to cleanſe and whiten the teeth withall: temper the ſaid aſhes with vinegre, it killeth the itch, and healeth angrie wheals; the ſmall pocks alſo and meazils. Oiſters punned raw and reduced into a cataplaſme, heale the kings evill, and kibed heels, if they be applied accordingly.

Moreover, the ſhell-fiſhes called Purples, are verie good againſt poiſon.

E As for the reits Kilpe, Tangle, and ſuch like ſea-weeds, *Nicander* ſaith, they are as good as treacle. Sundrie ſorts there be of theſe reits, going under the name of Alga, as I have alreadie declared: ſome are long leaſed, ſome large; others of a reddiſh colour; and ſome have curled and jagged leaves. The beſt ſimply of all others, be they of the Iſland Creta, which gow near the ground upon rocks; and namely for to die wooll and woollen cloth: for they ſet ſo ſure a colour, as never will ſhed or be waſhed off afterwards. *Nicander* giveth direction, to take the ſaid treacle in wine.

Chap. VII.

Medecines againſt the ſhedding of haire. For to colour the haire of the head. Alſo againſt the accidents of the ears, teeth, and viſage.

F

IF by occaſion of ſome infirmitie the haire be falne off or grow verie thin, the aſhes of the fiſh called the Sea-horſe, mingled with ſal-nitre and ſwines greace, or applied ſimply with vinegre, repleniſh the bare places with new haire, and cauſe it to come up thicke againe: and for to apply ſuch medicines for this purpoſe, the powder of a cuttle-bone prepareth the skin well before-

Muris marini. hand. Alſo the aſhes of the *ſea-tortoiſe incorporat with oile: of a ſea-urchin likewiſe burnt and G
calcined fleſh and all togither: as alſo the gall of a ſcorpion, be appropriat medicines to recover
haire that was loſt. In like manner, take the aſhes of three frogs burnt togither alive in an earthen
pot, meddle them with honey, it is a good medecine to cauſe the haire to grow: but the opera-
tion will be the better, in caſe the ſame be tempered with liquid pitch or tar. If one bee diſpoſed
to colour the haire of the head blacke, let him take horſe-leeches which have putrified and been
reſolved togither in ſome groſſe red wine for the ſpace of threeſcore daies, hee ſhall find this to
be an excellent medecine. Others there be who give order, to put as many horſleeches as a ſextar
will hold, in two ſextars of vinegre, and let them putrifie within a veſſell of lead as many daies to-
gither; and when they bee reduced into the forme of a liniment, to annoint the haire in the ſun-
ſhine for the ſame purpoſe. And *Sornatius* attributeth ſo much power unto this compoſition, H
that unleſſe they that have the annointing of the haire with it hold oile in their mouths all the
while, their teeth alſo (by his ſaying) who have the doing of it, wil turn black. The aſhes of Burrets
or Purples ſhells incorporat in honey, ſerve paſſing well in a liniment to heale ſcald heads: and
the powder of the foreſaid fiſh ſhells (although they be not burnt and calcined) tempered with
water, is as good for the head-ach. Of the ſame operation is Caſtoreum, incorporat with Har-
ſtrang in oile roſat. The fat or greaſe of all fiſhes whatſoever, as well thoſe of the ſea as rivers, be-
ing diſſolved in oile and tempered with honey, is ſoveraigne for to cleare the eies: and of the like
effect is Caſtoreum, applied with honey. The gall of the fiſh Callionymus, healeth the cicatri-
ces or skars that overgrow the skin about them: and the ſame eateth and conſumeth the excreſ-
cenſe of ſuperfluous fleſh in the corners of the eyes. And verely there is not a fiſh that hath more I
gall than it, as teſtifieth *Menander* the Poët in his comœdies. The ſame fiſh is otherwiſe called
** i.* Looking up to heaven. *Vranoſcopus, by reaſon of the eyes which he hath in the uppermoſt part of his head. Semblably the gall of the blacke fiſh Coracinus quickeneth the eye-ſight. Alſo the gall of the reddiſh ſea ſcorpions, mixed with old wine or the beſt honey of Athens, ſerveth to diſcuſſe the filmes of the eyes like to breed a cataract: and thrice muſt the eyes be annointed therewith, letting a day goe ever betweene. The ſame cure ſerveth likewiſe to take away the pearle in the eye. As for Barbles, it is commonly ſaid, that if one doe feed ordinarily upon them, hee ſhall ſenſibly feele his eyes to decay and wax dim therby. The Sea-hare it ſelfe verely is venomous; but his aſhes keepe the diſorderly and hurtfull haires of the eye-lids from growing any more, if they bee once plucked up by the roots: and for this purpoſe, the leaſt of this kind are the beſt. In like manner, the lit- K
tle Scallops kept in ſalt, and ſtamped togither with the roſin or oile of cedar: the ſmall frogs like-
wiſe which uſually they call Diopetes and Calamitæ, have the like effect to hinder the comming
up of hairs in the eyelids, after they be once pulled up; in caſe their bloud be tempered with the
gum of the vine tree, and therewith the edges of the ſaid eyelids be annointed. The ſwelling and
redneſſe of the eyes is by nothing better delaied and diſcuſſed, than by a liniment made of a cut-
tle bone pulverized and mixed with womans milke. And in verie truth, the ſaid cuttle-bone ſim-
ply by it ſelfe, cureth the aſperitie and roughneſſe of the ſaid eyelids. But for to worke this cure,
the chirurgian uſeth to turne up the ſaid eye-lids, and to apply thereto the medicine, which hee
ſuffereth not to ſtay there long, but taketh it away within a while: hee annointeth the place alſo
with oile roſat, and over night layeth thereto white-bread crumbs [with breaſt-milke] for to aſ- L
ſuage the paine. The ſelfeſame ſhell or cover of the cuttle-fiſh beaten to powder and brought in-
to a liniment with vinegre, cureth thoſe who can ſee never a whit towards night. The aſhes of the
ſaid cuttle-bone draw forth the ſcales or films which grow in the eyes: the ſame incorporat with
honey, heale the skars of the eies; but tempered with ſalt and braſſe ore, of each one dram, they
rid away the pin and web growing in the eye: the ſame helpe horſes of the haw that offendeth
their eyes. Some ſay moreover, that the little bones within the cuttle, if they be ſtamped to pow-
der, heale the eyelids of any ſore or accident befalling unto them. The Sea-urchins fleſh applied
with vinegre, taketh away the accidents of the eies called Epinyctides. The magicians give dire-
ction to burne the ſame with vipers skins and froggs, and to ſpice the drinke with the aſhes that
come thereof, aſſuring thoſe who uſe to drinke the ſame, that they ſhall have a verie cleare ſight. M
[A fiſh there is named Ichthyocolla, which hath a glewiſh skin, and the very glue that is made
thereof, is likewiſe called Ichthyocolla. The ſame glue taketh away the night-toes, commonly
named in Greeke Epinyctides. Some affirme, That the ſaid glue Ichthyocolla is made of the
belly and not of the skin of the ſaid fiſh, like as Buls glue. This fiſh glue is thought to be beſt, that

is

A is brought out of Pontus: the ſame alſo is white without any veines, ſtrings, or skales, and verie quickly melteth and reſolveth. Now the ſame ought firſt to be cut or ſhred ſmall, and then to lie infuſed or in ſteepe a whole day and a night in water or vinegre, which done, to be punned and beaten with the pebbles found about the ſea ſhore, that the ſame may the ſooner melt and diſſolve. This glue thus ordered, is held to be ſoveraigne for the headach: and a good thing to enter into thoſe medicines or compoſitions which are deviſed to ſmooth the skin and rid away the wrinckles.] Take the right eye of a Frog, lap it within a peece of ſelfe ruſſet cloth (ſuch as is made of blacke wooll as it came in the fleece from the ſheepe) and hang it about the neck, it cureth the right eye, if it be enflamed or bleared. And if the left eye be ſo affected, doe the like by the contrarie eye of the ſaid Frog, &c. Now, if it were poſſible to plucke out theſe eyes as the Frog is en-
B gendring, it would heale alſo the white cicatrices or skars in the eie, if it were hung about the neck of the patient in like ſort within an eggſhell. The reſt of the Frogs fleſh applied unto the eye, ſucketh out and conſumeth the bloud that is congealed under the tunicles of the eye, & lieth there blacke and blew. They affirme moreover, That the eyes of a crab or craiſiſh being hanged about the necke, are a ſoveraigne remedie for bleared eyes.

A little Frog there is, delighting to live moſt among graſſe and in *reed plots: mute the ſame is and never croaketh, greene alſo of colour: If Kine or Oxen chaunce to ſwallow one of them downe with their graſſe, it cauſeth them to ſwell in the bellie, as if they were deaw blowne. And yet (they ſay) that if the ſlime or moiſture wherewith their bodies be charged outwardly, bee ſcraped off with the edge of ſome penkniſe, it cleareth the ſight, if the eyes bee annointed therewith.
C As for the fleſh it ſelfe, they lay it upon the eyes for to mitigat their paine. Furthermore, ſome there are who take fifteene Frogs, pricke them with a riſh, and draw the ſame through them, that they may hang thereto, which done, they put them in a new earthen pot: and the humor or moiſture that paſſeth from them in this manner, they temper with the juice or liquor which in manner of a gum iſſueth out of the white vine Brionie, wherewith they keep the eyelids from having any haires growing upon them. But firſt they plucke up thoſe diſorderly haires which grew there to offend and hurt the eyes: and with a fine needle point drop the foreſaid liquour into the very places where the haires were fetched out by the roots. *Meges* the Chyrurgian deviſed another depilatorie for to hinder the growing of haires, made of Frogs which hee killed in vinegre, & permitted them therein to putrifie and reſolve into moiſture: and for this purpoſe his manner was
D to take many freſh Frogs, even as they were engendred in any raine that fell during the Autumn. The ſame depilatorie effect, the aſhes of Horſeleeches are ſuppoſed to have, if they bee reduced into a liniment with vinegre, and uſed accordingly: Now muſt they bee burnt and calcined in a new earthen veſſell that never before was occupied. And of the like operation is the liver of the ſea-fiſh Tænia, if the ſame be dried, and thereof the weight of foure deniers Romane incorporat in oile of Cedar to the forme of a liniment, for to annoint the haires of the eielids by the ſpace of nine months together.

*Calamarij.

The freſh gall of a Ray or Skeat, yea, and the ſame preſerved and kept long in old wine, is an excellent medicine for the eares: ſo is the gall likewiſe of the fiſh * Banchus, which ſome call Myxon: alſo of Callionymus the fiſh aforeſaid, if it be dropped into the eares with oile roſat: ſem-
E blably, Caſtoreum with the juice of Poppie. There be alſo in the ſea certaine creepers engendred, called Pedunculi, *i.* ſea-lice, which being ſtamped and tempered with vinegre, they give counſell to drop into the eares. Alſo a locke of wooll died in the bloud of the purple ſhellfiſh Conchylium, of it ſelfe alone is a very good thing to be applied unto the eares: howbeit ſome doe wet the ſame in vinegre and ſalnitre mixed together. But the ſoveraigne remedie in the opinion of moſt Phyſicians for any greevance and infirmitie of the eares, is this, namely, *Recipe* of the beſt ſauce or pickle called Garum Sociorum that may be gotten, one cyath, of honey one cyath and an halfe, of vinegre one cyath, ſeeth them all together gently over a ſoft fire in a new pot, eſtſoones skimming it in the boiling with a feather; and when it hath left caſting up a skum and is ſufficiently purified, take it from the fire: and of this decoction warme drop into the pained eares. If the eares be
F ſwelled withall, they ordaine and preſcribe to mitigat and aſſuage the ſame firſt, with the juice of Coriander. The fat of Frogs dropped into the eares, allaieth their paine preſently. The juice or decoction of craiſiſhes incorporat with fine Barly meale, is a ſingular and moſt effectuall ſalve to heale the wounds of the eares. As for the ſwellings or inflammations riſing behind the ears: there is not a better thing to cure them, than to applie thereto the aſhes of Burrets ſhels tempered with

*Banchi. Some read *Bacchi.*

honey,

honey,or of the Purples Conchylia,with honied wine. G

If the teeth ake,the readie meanes to assuage them,is to scarifie the gums and let them bloud with the sharpe bones of the sea dragon: and withall,to make a collution with the braines of the sea dogfish boiled in oile and saved for the purpose,to wash the mouth and teeth therewith once in a yeare. Likewise in the paine of the teeth,found it is most soveraigne to scarifie the gums with the prickie bone or finne of the Puffin or Forkefish,untill they bleed againe. The same also being pulverized,brought into a liniment with white Ellebore,and applied to the teeth,causeth them to fall out of the head without any great paine. Moreover,the ashes of salt fish burnt in a new earthen vessell,and mixed with the pouder of the marble stone,is reckoned among the remedies for the teeth. In like manner the quadrants or square cantons of the old Tunie fish,*burnt to a coale in a new earthen pan,and afterward beaten to pouder,are thought to be good for the tooth-ach. H Of the like operation and effect (they say) be the prickes and finnes of all kinds of salt fish, if they be first burned to a coale,then pulverized,and therewith the teeth well rubbed. Furthermore, to make a collution to wash the teeth withall,& to hold the liquor in the mouth, some seeth Frogs in vinegre,with this proportion,that to every Frog they take one hemin of vinegre. But because many a mans stomack lothed & abhorred such a medicine,*Sallustius Dionysius* found the means to hang many of them by the hinder legs over a vessell or pan of seething vinegre, that out of their mouth there might fall the humour within their bodies into the said vinegre. But to those who had good stomackes and were of stronger complexions,he prescribed to eat the very Frogs broth and all wherein they were sodden. And in very truth,many are of this opinion,That if the grinders and great jaw teeth doe ake,this is a speciall medicine for them; but in case they be loose in the head,then the best way to confirme and set them fast,is a collution with the vinegre aforesaid. I And for this purpose some there bee,who after they have cut off the feet of two Frogs, lay their bodies to infuse and steepe in one hemine of wine, and so advise their patients to wash their unsteedie teeth with the said infusion. Others applie them whole as they be,legs and all outwardly to the chawes,and keepe them fast thereto. Whereas some againe seeth ten of them in three sextars of vinegre,untill a third part of the liquor bee consumed, and with this decoction thinke to fasten the teeth sure that shake in their sockets. Moreover, others you shall have who take the hearts of six and thirtie Frogs,& bake or boile them in one sextar of old oile under a pan or oven of brasse; the gravie or liquor whereof they poured into the eare of that side where the cheeke or jaw doth ake: whereas many other besides seeth the liver of a Frog, and when they have stamped and incorporat it with honey,put it into the hollow teeth,or applie it thereto. K But all these medicines abovesaid you must thinke to be more effectuall,if they be made of sea Frogs. Now if the teeth be worm eaten and stinke withall, they give order to drie a hundred of them in an oven all night long: afterwards to put unto them as much salt in proportion as they come to in weight, and therewith to rub the said faultie teeth. There is a kind of serpent or water-snake called in Latine Coluber,and of the Greekes Enhydris; divers there be,who with foure of the upper teeth of this serpent,scarifie the gums of the upper chaw,in case the teeth therein doe ake: and semblably with foure of the nether teeth, if the other bee in paine: And yet some there bee who content themselves with the eyetooth onely. They use also the ashes of sea-Crabs, and no marvaile: for the ashes of Burrets is a dentifrice well knowne for to keepe the teeth clean,and make them neat and white. L

Exusta,not *Eluta*, according to *Galen*.

The fat of a sea-Calfe or Seale taketh away the foule tettars called Lichenes, and the filthie leprosie: so doe the ashes of Lampreies, if the same bee incorporat with honey to the weight of three oboli. The liver also of the Puffin boiled in oile. Finally,the ashes of a sea-Horse and a Dolphin mixed with water,so that the part affected be well rubbed withall untill it blister. Now, when it is thus exulcerat,it must be followed with that manner of cure which is appropriat therto, and namely,untill it be healed and skinned againe. Some take the liver of a Dolphin,and frie or torrifie it in an earthen pan,untill there come from it a kind of grease in manner of oile, and therewith annoint the patients in the cases abovesaid.

If women desire to be rid of the foule freckles, spots, and morphew that doe injurie to their beautie; if they would looke young, and have their skin plumpe and void of all rivels, let them M take the ashes of Burrets and Purple shells calcined, incorporat the same with honey into the forme of a liniment: within one weeks space if they plie it with annointing, they shall see the effect thereof; namely, the skin cleare and neat,even and smooth without wrinkles,and the cheeks

not

A not hollow,but faire and full. Marie upon the eight day they muſt not forget to foment & bath the place with the white of an egg well beaten. Among the kinds of Burrets called Murices, are to be raunged thoſe ſhell-fiſhes which the Greekes ſome call Colycia, others Corythia, ſhaped in the ſhell like to the reſt in manner of a turbant, but that they be farre leſſe, howbeit more effectuall: for that beſides the other properties abovenamed this ſpeciall gift they have, to maintain a ſweet breath. As for the fiſh or glue called Ichthyocolla, it hath vertue to lay the skin even without rivels, and to make it riſe and appeare trim, but then it ought to boile in water the ſpace of foure houres, afterwards to be ſtamped, *ſtrained, and wrought to the liquid conſiſtence of hony and no more. Thus prepared, it muſt be put up into a new veſſell never occupied, and there kept. When time ſerves to uſe it, to every foure drams weight thereof proportion two of brimſtone, of
B Orchanet as much, of litharge of ſilver eight drams: put them all together, and ſtamp them, with ſome ſprinckling of water among. Herewith let the face bee annointed, and after foure houres waſh it off againe. For the ſpots and pimples in the face, called Lentils, as alſo for all other deformities, the aſhes of Cuttill bones are thought ſingular, if the skin bee rubbed therewith: and the ſame conſume the excreſcence of proud and ranke fleſh, like as they drie up any moiſt and rheumaticke ulcers.

*Colata.

Chap. viii.

& Diverſe receits, ſet downe diſorderly one with another, for ſundrie maladies.

C ONe Frog boyled in five hemines of ſea-water, is ſingular for to cauſe the skurfe of the mange or wild ſcab to fall off: but ſodden ſo long it muſt be, untill the decoction bee riſen to the height of honey.

There is engendred in the ſea alſo that which is called Halcyoneum, made as ſome thinke of the neaſts of the birds Halcyones and Ceyces: but as others ſuppoſe, of the filthie ſome of the ſea thickened and indurat: and according to the opinion of ſome, it proceedeth from the muddie ſlime or a certaine *hoarie drie ſcum or froth of the ſea. Foure kinds there be of it. The firſt of an aſh colour, thicke and maſſie, of a quicke and hote ſmell. The ſecond is ſoft and more mild ſavouring in manner like to ſea weeds. The third reſembleth the whiter kind of checquer worke in marquetrie. The fourth is more hollow and fuller of holes in manner of a pumiſh ſtone, and in
D that reſpect reſembleth a rotten ſpunge, enclining much to the colour of purple: & this is ſimply the beſt, called alſo by the name of Halcyoneum Mileſium; yet in this kind the whiter that it is, the worſe is it to be liked. The propertie of them all in generalitie, is to exulcerat and mundifie. Vſed they are being torrified, even without any oile. Wonderfull is their operation, if they be tempered with Lupines, and the weight of two oboli in ſulphur, for to take away the wild ſcab or leproſie, the foule tettars Lichenes, and the pimples or ſpots of the skin called Lentils. Halcyoneum alſo is commonly emploied about the skars or thicke filmes appearing in the eyes. *Andreas* the Phyſician uſed much the aſhes of a ſea-crab incorporat with oile in curing the leproſie. *Attalus* occupied as uſually the fat of a freſh Tunie, new taken, for the healing of ulcers. The pickle of Lampreies, together with the aſhes of their heads calcined, and brought into a liniment with honey, healeth the kings evill. And many are of opinion, That to pricke the wens named the kings evill aforeſaid, with the ſmall bone or pricke that ſticketh in the taile of that ſeafiſh which is called *Rana marina, with this gage and rule of the hand that it wound not deepe, is very good for that diſeaſe: but the ſame muſt bee done every day untill they bee throughly cured and whole. Of the ſame operation is the ſharp prick in a Puffen: of the ſea Hare alſo applied unto them, ſo as neither the one nor the other bee ſuffered to lie long unto the place, but bee ſoone renewed. Alſo the ſhellie skin of the ſea Vrchin ſtamped to pouder and brought into a liniment with vinegre: as alſo the aſhes of the ſea Scolopendre incorporat with honey: and the river craifiſh either pulverized or calcined, and the duſt or aſhes thereof likewiſe tempered with hony, are
F good to be applied unto the ſame diſeaſe. Wonderfull effectuall be the bones alſo of the Cuttill fiſh beaten to pouder, and with old ſwines greaſe brought into the forme of a liniment: And in this manner they applie this medicine to the tumors behind the eares: like as the livers of the ſea fiſh Scarus. Moreover, the ſheards of ſuch earthen veſſels wherein ſalt fiſh was poudered & kept, beaten to pouder and tempered with old ſwines greaſe: the aſhes alſo of Burrets ſhels incorporat in oile, ſerve in right good ſtead for the ſwellings behind the eares, and the tumours or wens

*Halofachnum.

*The Frenchmen tearme it *Diable de mer*, i the devill of the ſea.

called

called the kings evill. The ſtiffe cricke in the necke is mollified and made pliable againe, ſo as it may turne which way a man would have it, with drinking of one dram weight of thoſe creepers or inſects which be called ſea-lice; and yet ſome take for the ſame Caſtoreum in honnied wine, adding thereto a little Pepper, and drinke this compoſition in the broth of Frogs boiled in oyle and ſalt. After which manner, many Phyſicians cure the crampe that draweth the necke backeward: the generall convulſion alſo that ſtretcheth the bodie ſo, as if it were of one peece: and other particular ſpaſmes and crampes of any part, ſo there be ſome Pepper put thereto. The aſhes of ſalt Cackerels heads burnt and reduced into a liniment with honey, diſcuſſe and reſolve the Squinancie cleane, like as the broth of Frogs boiled in vinegre; and the ſaid broth is ſingular alſo for the inflammation of the tonſils. The Creifiſhes of the river dried and beaten to pouder, then put into water (ſo as there be to every one a hemine of water) make a good liquor to gargarize withall for the ſquinancie. The ſame alſo drunke in wine or hote water, worke the like effect. The ſauce made of Maquerels called Garum, put with a ſpoone under the uvula, and there held a while, putteth it up and reduceth it again to the right place. The fiſh *Silurus eaten at the table either freſh or poudered, helpeth the voice much. The barbles kept untill they be dried, & then pulverized, provoke vomit, if a cup of drinke be ſpiced with the pouder. If a man or woman bee ſhort winded, there is not a medicine againſo good to helpe that difficultie of breath, as to drink whiles they be faſting, Caſtoreum, with a little quantitie of Ammoniack in honied vinegre. The ſame potion taken likewiſe with honied vinegre hot, allaieth the convulſion of the ſtomack proceeding from exceſſive yexing or hicquets. *Item*, it is ſaid, That Frogs boiled in ſome broth betweene two platters after the manner of fiſhes, are good for a cough: And being hanged by the heels, after that their ſalivation and humiditie is dropped from them into a pan or platter underneath, they are to be rid of their garbage, and when the ſame is flung away, they ought to be kept and preſerved for the purpoſe aforeſaid. There is a little Frog that uſeth to climbe trees, & from thence crieth and croaketh: if a man ſpit into the mouth of one of them, and then let her goe again, it is thought he ſhall be deliverd by that means from the cough. To conclude, many give counſell for the cough that bringeth up bloud withall, to drinke in hote water the fleſh of a raw perwinckle well punned.

*Some take it for the Sturgeon, but untruly

G H I

Chap. ix.

Proper receits for the accidents of the liver and the ſides: for the infirmities alſo of the ſtomacke and bellie. Beſides other medicines huddled together confuſedly.

K

MAny uſe to ſuffocat and kill in wine a ſea Scorpion, and to drinke thereof for the paine of the liver. For the ſame purpoſe many are wont to take in honied wine and water of each a like quantitie, the fleſh of the long muskles or ſhell fiſhes: or if they have a fever, in honied water. In caſe of pleuriſie or pain of the ſides, the fleſh of the ſea horſe roſted, eaſeth the ſame: ſo doth the fiſh Tethea, which reſembleth an Oyſter, taken as meat. The pickle of the fiſh Silurus injected by way of clyſter, allaieth the paine of the Sciatica. To the like effect there are given for fifteene daies together, Cockles or Muskles, to the weight of three oboli infuſed in two ſextars of wine. The broth of Silurus ſofteneth the bellie: like as the crampefiſh Torpedo, eaten as meat. The *ſea-wort is like unto that of the garden, hurtfull to the ſtomacke, but moſt eaſily it purgeth the belly. In regard of the acrimonie that it hath, they uſe to ſeeth it with ſome fat fleſh. The broth of any fiſh whatſoever is laxative: The ſame provoketh urine, eſpecially if it be made of wine. The beſt fiſh broth commeth from the ſea ſcorpions, and thoſe which they call Iulides: of ſtone fiſhes alſo that keepe about rockes, and have no ranke or ſtrong taſt; and ſuch muſt be ſodden with dill, parſely, coriander, and leekes, putting thereto oile and ſalt. The ſquares alſo or cantons of the Tunie, that have been old kept, are purgative: for particularly they evacuat crude and wateriſh humors, beſides fleagme and choller. The ſhell fiſhes alſo named Myaces, have a qualitie purgative: as touching whoſe nature I purpoſe to write fully in this verie place. They gather together by heapes after the manner of Burrets; they live in places given to breed reits and ſea moſſe; moſt delicat and pleaſant meat they be in Autumne, and eſpecially in thoſe coaſts where good ſtore of freſh water is entermingled in the ſea, which is the reaſon that thoſe of Ægipt be moſt commendable. As winter groweth on, they begin to gather a kind of bitterneſſe, and a red colour beſides.

*Olus marinum: haply he meaneth *Braſica marina*, i. *Soldanella*, yet it is nothing like to our Colewort.

L M

The

A The broth of theſe fiſhes hath the name to evacuat both the bellie and the bladder, to ſcour and mundifie the guts, to open any obſtructions whatſoever, to purge the reines, to take down the rankeneſſe of bloud and fat: In which regards, they be ſoveraigne for the dropſie, for the monthly tearmes of women, the jaundiſe, all gouts and diſeaſes of the joints whatſoever, and ventoſities: Singular they are holden to bee for to cleanſe the humours either chollericke or phlegmaticke; which annoy or ſtuffe the lights, or which engender obſtructions about the liver: Likewiſe to cure the infirmities of the ſpleene, and all rheumes or deſcent of humors to any place. Onely they be hurtfull to the throat, and make a man to looſe his voice, this is all the harme they do. The ulcers that corrode and be full of filthie matter, and require mundification, they heale: ſo doe they all cankerous ſores. Being calcined after the order of Burrets, they cure the biting both of dog and
B man, if their aſhes be incorporat with honey: and ſo they cleanſe the leproſie, and rid away the pimples or ſpots in the skin called Lentils. Their aſhes *taken in drinke, have a vertue to diſcuſſe the dimneſſe and miſtineſſe of the eyeſight, to cure the accidents of the gums and teeth; & beſides to drie up the ſmall pockes, and ſuch like breaking forth of wheales, by occaſion of fleagme. Furthermore, they are as good as a countrepoyſon againſt the juice of the deadly Dwale, called Dorycnium, or of Carpaſum, which is commonly named Opocarpaſum. Moreover, this would be noted, that they grow all to be of two kinds of them: the one *Mituli, [i. Limpins] which have a taſt of ſalt, and carie a ſtrong ſavour; the other *Myſcæ, which differ from the other in roundneſſe: leſſe alſo they be a good deal and hairie: and as their ſhels be thinner, ſo their fleſh is more firme and hard. The ſaid Limpins alſo, as well as Burrets, yeeld aſhes when they be calcined, which
C have a cauſticke qualitie, whereby they ſerve properly to mundifie the skin from leproſie, lentils, and other pimples and illfavoured ſpots. The ſame being waſhed after the manner of lead, be ſingular for to ſubtiliat the thicke eye-lids, to ſcatter and diſcuſſe the pearles in eyes, to diſſipat the cloudie and miſtie dimneſſe: to cleanſe filthie ulcers in any part of the body, and namely the puſhes and bliſters that ariſe in the head. As touching the fleſh that they have, it ſerveth in a cataplaſme to be laid unto the biting of mad dogs. The Palours alſo doe mollifie and ſoften the bellie: ſo doth Caſtoreum, beeing drunke to the weight of two drams in honied water. They that would have this medicine more quicke in operation and to worke throughly, put thereto of the garden Cucumber root dried one dram, and of ſal petre two drams. As for the fiſhes named Tetheæ, they are ſingular againſt the wringing torments of the bellie and all ventoſities. Theſe fiſhes
D be found ordinarily about the rockes of the ſea, ſucking the leaves of Reits and ſuch like weeds, more like indeed to Muſhromes and Puffes than to fiſhes: But the ſame have a ſpeciall propertie to cure the Tineſme and the accidents of the kidneies.

Moreover, there groweth in the ſea a kind of Wormewood, which ſome call Seriphium, and principally toward * Tapoſiris in Ægypt, the which is more ſmall and ſlender than that of the land: it looſeth the bellie, killeth the wormes in the guts, and expelleth them. The Cuttill fiſh alſo is laxative: And ordinarily given it is to be eaten, after it hath beene ſodden with oile, ſalt, and meale. Salt Cackerels likewiſe provoke unto the ſtoole, in caſe they bee reduced into a liniment with Buls gall, and therwith the navill annointed. Generally, the broth of fiſh ſtewed between two platters with Lectuce, diſpatcheth thoſe ſharpe and fretting humours which are the cauſe of the
E Tineſme. The crai-fiſhes of the river ſtamped and drunke in water, ſtop a lask, and be diureticall: but yet in wine they move appetite to the ſiege. Take away their feet and armes whereby they crawle, then pun and incorporat the reſt of their bodie with Myrrhe, they drive out the ſtone. But this proportion muſt bee obſerved, that to every dram weight of them there be put three oboli of Myrrhe.

To appeaſe the painefull paſſion called Iliaca, to allay and reſolve ventoſities alſo and inflations, there is not a better thing than to take in foure cyaths of mead or honied wine hote, Caſtoreum, with Carot & Parſely ſeed, as much as may be comprehended with three fingers. The ſame is ſingular to allay the wrings and torments of the belly, with vinegre and wine mingled together. The fiſhes named Erythini eaten as meat, doe ſtay the looſeneſſe of the bellie. For to cure the dy-
F ſenterie or bloudie flix, ſeeth Frogs with the ſea Onion commonly named Squilla, and thereof make certaine trochisks, to bee given unto the patient in that caſe. The ſame effect hath their gall or heart ſtamped and incorporat with honey, as *Niceratus* mine author doth teſtifie. Eat ſalt fiſh with Pepper, ſo as you abſtaine from all fleſh beſides, if you would bee cured of the jaundiſe. Lay the fiſh named a Sole, to the region of the ſpleene, it cureth the opilation and hardnes there-

of:

* *Potus*, rather *illitus*, that is, brought into a liniment, & ſo uſed outwardly.

* *Salem.* Some read *Scilla*, i. ſea Onion or Squilla.

* or Muskles.

* Haply Cockles.

* *Taphoſiris.*

of: ſo doth the crampefiſh Torpedo: and a Turbet in like manner, being applied alive; but afterwards you muſt let it looſe againe into the ſea. A ſea ſcorpion killed in wine, healeth the infirmities of the bladder, it breaketh and expelleth the ſtone. The ſame effect hath the ſtone which is found in the taile of a ſea ſcorpion, if it bee drunke to the weight of one obolus: the liver alſo of the water ſnake Enhydris: and the aſhes likewiſe of thoſe kind of Mullets which be called Blennij, if they be taken with Rue. Moreover, there be found alſo in the head of the fiſh Banchus, certaine little ſtones as it were, which if they be drunke in water, are ſoveraigne for them which bee troubled with the gravell and the ſtone. And it is commonly ſaid, That the ſea fiſh named a Nettle, taken in wine, is very good therefore: like as another knowne in Latine by the name of Puluco Marinus, boyled in water. The egges or ſpawne that the Cuttill fiſh doth caſt, bee diureticall, and provoke urine, whereby alſo they cleanſe the kidneies from the phlegmaticke humours there gathered. River crabs or craifiſhes ſtamped and taken in aſſes milke eſpecially, doe cure ruptures and inward convulſions. And as for ſea Vrchins, if they be ſtamped prickes and all, and ſo drunke in wine, they expell ſtone and gravell: but to every Vrchin there muſt bee taken one hemine of wine, and the patient ought to drinke it continually untill he find help: and otherwiſe their meat is very good to be eaten ordinarily for this purpoſe. To feed alſo upon Cockles and Scalops, is holeſome for to ſcoure the bladder. Of theſe ſhell fiſhes, thoſe of the male ſex be called by ſome Donaces, by others Auli, whereas the female are named Onyches. The male doe provoke urine: but the female are the ſweeter in taſt, and of one colour. The egges or ſpawne alſo of the Cuttill fiſh, move urine as hath been ſaid before, and purge the reines. For that rupture wherein the guts fall downe into the cods, it is ſaid, That the ſea Hare punned and applied to the place in forme of a cataplaſme with honey, is ſingular to reduce them up into their place. The liver alſo of the water ſnake or adder, called otherwiſe Hydrus or Enhydris, beaten to pouder and put in drinke, helpeth thoſe that be given to breed the ſtone and gravell. The pickle that commeth of the fiſh Silurus ſalted, infuſed or injected by a clyſtre into the guts, ſo that the bellie were before emptied from the groſſe excrements, cureth the Sciatica. The aſhes of Barbles and Mullets heads calcined, heale and skin up the gals and frets of the fundament. Now the manner of burning or calcining them, is in an earthen pot: and reduced they ought to be into a liniment with honey, before the place bee therewith annointed. The aſhes alſo of Cackerels heads burnt, doe cure and cloſe up againe the chaps in the ſeat: which alſo are good for the ſwelling piles and bigs in thoſe parts: Like as the aſhes of the young Tunies heads ſalted, called Pelamides: or the Squares named Cybia, with honey. If the tiwill be ſlipped downe and readie to hang out of the bodie, applie thereto the crampefiſh Torpedo, it preſently reduceth it and ſtaieth it up. The aſhes of craifiſhes broght into a liniment with oile and wax, healeth the chaps and fiſſures in thoſe parts: ſo dooth the fine pouder of the ſea crab dried and pulverized. The pickle alſo of the fiſhes Coracini, diſcuſſeth and reſolveth the biles called Pani: The ſame effect worke the aſhes of the garbage and skales of the ſhadow like Sciæna: The ſea ſcorpion alſo boiled in wine, ſo that the ſaid biles or impoſtumes be fomented therewith. But the hard and ſhell-like skins of ſea Vrchins being well ſtamped and with water brought into a liniment, keepe the ſaid biles downe, and repercuſſe them in the beginning. The aſhes likewiſe of Murrets or purple fiſhes ſerve both waies whether it bee needfull to diſcuſſe them in the beginning, or to ripen them, and after they be brought to maturation, for to breake them and let them forth. Some Phyſicians for this intent compound a medicine or ointment in this manner, *Recipe* of Wax and Frankincenſe twentie drams, of litharge of ſilver fortie drams, of Burrets aſhes ten drams, of old oile one hemin, *Fiat unguentum*. The very fiſhes alone by themſelves ſalted, ſodden, and ſo applied, ſerve in this caſe. Craifiſhes of the rivers punned into a cataplaſme and applied unto the ſecret parts, reſolve and diſcuſſe the puſhes that there ariſe: ſo doe the aſhes of Cackerels heads: their fleſh alſo boiled and laid to the place affected. In like manner, the aſhes of Perches heads ſalted and reduced into a ſalve with honey. The aſhes of young Tunies heads, whiles they are Pelamides, or the rough skin of the fiſh called * Squatina, burnt: This is the skin, which as I ſaid before, is proper to poliſh wood and make ſmooth any workes made thereof: whereby you may ſee, that even the ſea alſo dooth affourd inſtruments to fit the Ioiners and Carpenters hand. The ſmall fiſhes named Smarides applied unto the puſhes of the ſaid privie parts in the forme of a liniment, doe much good: as alſo the aſhes of Burrets or Purples ſhels incorporat with honey: and the ſame would be more effectuall, in caſe that the fiſhes bee burnt whole, ſhell, fleſh and all. Salt fiſh ſodden in honey, and applied, ſerve particularly

G H I K L M

*Some take it for a Sole, others for a Skeat.

A larly to extinguiſh the heat of carbuncles and botches in the ſaid ſecret parts. If one of the cods hang downe flagging unſeemely lower than his fellow, ſome would have it annointed with the froth that commeth from ſhell-ſnails or periwinkles. The fleſh of the Sea-horſe roſted, helpeth them that cannot hold their urine, in caſe they uſe ordinarily to eat thereof: likewiſe the little fiſh called Ophidion, ſo like unto a Congre, if it be taken with a Lillie root. The ſmall fiſhes found in the bellies of the greater who have devoured and ſwallowed them downe, taken forth and burned to aſhes, are good in this infirmitie to be drunke in water. The aſhes of ſhell-ſnails, meat and all, burnt, are preſcribed by ſome phyſicians to be given in Signine wine againſt incontinency of urine; but principally of Barbarie ſnails. For the gout in the feet, and the diſeaſes of other joints, the oile wherein a frog was boiled, is ſoveraigne: ſo are the guts of the ſaid frog, and the aſhes of
B a toad incorporat with old oile: ſome put thereto the aſhes of all the three kinds of barly, of each an equall weight. And they give direction to rub alſo the goutie feet, with a Sea-hare: alſo to be ſhod with the skinns of Bevers, eſpecially thoſe which are bred in Pontus: like as, to weare ſhoes made of Seals skin: the fat of which fiſh, is likewiſe verie good. Alſo the ſea-moſſe or reits called Bryon, like to lettuce, but that the leaves be more riveled, and grow to no ſtalke; whereof I have written heretofore: of a ſtypticke and aſtringent nature it is; no marveile therefore, if being applied unto the gout, it mitigat the furie and violence thereof. Moreover, the common ſea-weeds named Alga, of which alſo I have treated alreadie: but this caution there would be in the application thereof, That it be not drie. The ſea fiſh called Pulmo Marinus, cureth the kibes in the heels: the aſhes alſo of the Sea-crab, tempered with oile: yea and the river Crabs or Creifiſhes burnt and calcined to aſhes, if the ſame be incorporat with oile: like as the fat of the fiſh Silurus. Moreover, if other joynts be diſeaſed, it were verie good for the eaſement of their griefe, eftſoons to lay thereto frogs, freſh and new taken: mary the beſt way, by the direction of phyſi-
C cians, is to ſplit them through, and ſo to apply them warme. The broth of Limpins, Muſcles, Cockles, and Wilkes, is verie nutritive, and maketh them fat that uſe it. Thoſe that bee ſubject to the falling ſickneſſe, uſe ordinarily (as it hath been ſaid before) to drinke the rennet of the Seale or Sea-calfe, either with mares milke or aſſes milke, or els with the juice of the pomgranat: and ſome are woont to take it in oxymell or honeyed vinegre: and yet there be others that ſwallow the ſame downe by it ſelfe in forme of pills. And for the ſame purpoſe, Caſtoreum is uſually given unto ſuch patients faſting, to bee drunke in three cyaths of honeyed vinegre or oxymell
D aforeſaid: but thoſe that eftſoons be ſurprized with the fitts, and oftentimes fall therof, find wonderfull much good by this clyſtre following: Take of Caſtoreum two drams, of honey and oyle one ſextar, and of water as much. But ſay that one be preſently in a fitt, the readie means to raiſe him and ſet him upright upon his feet againe, is to preſent unto his noſthrills Caſtoreum with vinegre, for to ſmell unto. The liver alſo of the fiſh named the Sea-cat or Weazill, is given in like caſe: even as the bloud either of Sea-mice or Tortoiſes.

Chap. X.

Remedies for fevers of all ſorts: alſo for divers other infirmities.

E THe liver of a Dolphin eaten before the acceſſe, cureth all thoſe agues which be not continuall, but returne by fitts and keepe their courſe. Oile roſat wherein the fiſhes called Sea-horſes were ſuffocated and killed, is ſingular good to annoint thoſe that be ſicke of ſuch agues as come with a cold fitt: and the very fiſh it ſelfe is moſt effectuall to rid away the ſame, in caſe it bee hanged about the necke, or to the arme of the patient. Semblably, the little ſtones which are found in a Haddocks head at the full of the moone, if they bee taken foorth and hung about the patient, lapped handſomly in a little linnen bag, ſerve to drive away ſuch fevers. Moreover, it is ſaid, that the longeſt tooth in the head of a river fiſh called Pagrus, tied to one of the hairs of the patients head, ſo as he doe not ſee the partie who faſtened or hung it thereto, in five daies ſpace, will doe the deed: as alſo that the oile wherein a frog hath been boiled in ſome carre-
F four or croſſe ſtreet turning three waies, cureth thoſe who are ſicke of a quartan ague, if they be all over annointed therewith; provided alwaies, that the fleſh be firſt thrown away. And yet ſome ordaine, that they ſhould be ſtrangled or ſtifled in oile, and then the bodies hung privily about ſome part of the patient without his knowledge; and that he be afterwards well rubbed and annointed with the foreſaid oile. If one carrie about him the heart of a frog either hanging by his

necke or tied to his arme, ſurely it will diminiſh and ſhorten the cold fitt of an ague: like as the oile will doe no leſſe, wherein the entrails of the ſaid frog were boiled, in caſe hee be annointed therewith. But above all, either frogg or toad (the nails whereof have been clipped) hanged about one that is ſicke of a quartan ague, riddeth away the diſeaſe for ever: alſo, whoſoever have about him hanging to any part of his bodie the heart of a toad, enfolded within a peece of cloth of a white ruſſet colour, hee ſhall be delivered from the quartane ague. Stampe river-crabs or creifiſhes, concorporat them with oile and water, and herewith annoint the patient all over before the fit of any ague, you ſhall find it to doe very much good; but ſome put pepper thereto: other for the quartan particularly, boile the ſame in wine untill a fourth part be ſodden away, and then give counſell unto the ſicke parties to drinke of that broth, preſently after they be come out of the baine. You ſhall have ſome adviſe, for to ſwallow downe whole, the left eye of a creifiſh in this caſe. Moreover, the magicians ſeeme to aſſure us, that whoſoever bee ſicke of a tertian ague, ſhall be rid of it, in caſe the eyes of the ſaid creifiſhes bee tied or hanged about them one morning before the Sun be up; ſo as withall, they that have the doing hereof, let them goe againe blind as they are, into the water: and they would beare us in hand, That if the ſaid eyes plucked out of the head of a creifiſh, be wrapped togither with the fleſh of a nightingale, within a peece of a ſtags skin, and ſo worne either about the necke, or otherwiſe tied faſt to ſome part of the bodie, they will cauſe him or her that weareth them, to be watchfull and not enclined one whit to ſleepe. They uſe likewiſe the rennet of a Whale or elſe of a Seale, giving it unto thoſe that bee growing into a lethargie, for to ſmell unto: and ſome of them annoint thoſe that be alreadie in a lethargie, with the bloud of tortoiſes. The fiſh likewiſe called Spondylus, is ſaid to rid away the tertian ague, in caſe the patient weare one of them without any thing elſe, about the necke: like as the river ſhell-ſnails eaten freſh and new gathered, cure the quartan: howbeit, ſome there be, who for that purpoſe keepe them condite in ſalt, & give them after they be punned, for to drinke. The wilks alſo or wrinkles called Strombi, ſuffered to lie and putrifie in vinegre, doe with their verie ſmell awaken and raiſe thoſe that lie in a lethargie. The ſame are good likewiſe for ſuch as be readie to faint and fall into cold ſweats, through feebleneſſe of the heart and ſtomacke. The fiſhes named Tetheæ, eaten with rue and honey, are ſoveraigne for to reſtore them whoſe fleſh is falne away in a conſumption. The fat of a dolphin melted and drunke in wine, cureth ſuch as bee in a dropſie. In caſe the head be heavie and readie evermore to * fall aſleepe, there is not a better thing than to rub the noſthrils with ſome convenient ointment, or to hold therto ſome perfume, or elſe to ſtop the ſame any way it makes no matter how. Alſo, the meat of the foreſaid wilkes or wrinkles, ſtamped and given in three hemins of honeyed wine, with as much water, or in mead or honeyed water if the patient have a fever withall, is ſingular good againſt the ſaid drowſineſſe: likewiſe the juice or decoction of creifiſhes with honey. Moreover, water-froggs boiled in old wine with the red wheat Far, and eaten as meat; ſo as the patient drinke alſo of the broth out of the ſame veſſell where they were ſodden, are thought to bee ſoveraigne for ſuch ſleepie diſeaſes: or elſe take a tortoiſe, cut away his head, feet, and taile, plucke out his guts and garbage; the reſt of the fleſh condite, ſo as it may be taken without any loathing or riſing of the ſtomacke; for this is held to bee ſingular in this maladie. Moreover, freſh-water creifiſhes eaten with their broth, have the name to reſtore ſuch as be in a phthyſicke or conſumption of the lungs. The aſhes either of a ſea-crab or river-creifiſh, be excellent either for burne or ſcald: and this manner of eure alſo ſerveth for to reſtore haire againe; but then they hold opinion, that togither with the aſhes of the river creifiſhes, there be wax uſed and bears greace. Alſo the aſhes of frogs gall is thought good for a fever. As for ſhingles and S. *Anthonies* fire, the bellies of live froggs applied to the place, doe extinguiſh and quench the extremitie of their heat: but in any caſe order is given, that they be tied by the hinder leggs with their mouths bending forward; to the end, that their often breathing alſo upon the place, may coole and doe good. Furthermore, many there be who uſe for that purpoſe, the aſhes of the heads of the fiſhes called Siluri: as alſo of ſaltfiſh with vinegre, and apply the ſame to ſuch wildfires and inflammations. The liver of a Puffen or Forkefiſh ſodden in oile, beeing outwardly applied, killeth not onely the itch and ſcab of men, but alſo the ſcurfe and mange of foure-footed beaſts, moſt effectually. The calloſitie or thicke skin wherwith Purple fiſhes cover their heads and hollow concavitie, if it bee punned and applied unto wounded ſinews, doth conſolidat and ſowder them againe though they were cut aſunder. The rennet of a Seale or Sea-calfe taken in wine to the weight of one obolus, helpeth thoſe that lie

* *Gravitati ſoporis.*

A in a lethargie: ſo doth fiſh-glew Ichthyocolla. Such as are given to the ſhaking and trembling of their lims, find much benefit by Caſtoreum, if they bee rubbed and annointed with it and oile togither. I read, that Barbles are hurtfull meat for the ſinews: and many are of opinion, that as much feeding upon fiſh * cauſeth bleeding, ſo the ſame may be ſtaunched with the poulpe or pourcuttle, if it bee ſtamped and applied to the place: of which fiſh, thus much moreover is reported, That of himſelfe he yeeldeth a certaine ſalt pickle, and therefore there ſhould be no ſalt put into the liquour while hee is ſeething: *Item*, that it ought to bee ſliced and cut with an edged reed; for with an yron knife it will take infection, and the nature of it is ſuch as to * keepe and retaine it ſtill. For the ſtaunching of bloud, they uſe alſo the aſhes of frogs, or elſe their bloud dried, to be applied accordingly. But ſome would have the aſhes to be made of that kind of frog, which

B the Greeks name Calamites, becauſe it liveth among reeds, buſhes, and ſhrubs, and of all others is the leaſt and greeneſt: and yet many doe ordaine, if the flux of bloud be from the noſthrils, to take the aſhes of young frogs breeding in the water, whiles they be tadpoles and have little wriggling tailes, (and thoſe muſt be calcined for that purpoſe in a new earthen veſſell) and to put up the ſaid aſhes into the noſe. On the contrarie ſide, the horſleeches which wee call in Latine Sanguiſugas, [*i.* Bloudſuckers] are uſed for to draw bloud. And verily it is judged, that there is the ſame reaſon of them, as of ventoſes and cupping-glaſſes uſed in phyſicke, for to eaſe & diſcharge the bodie of bloud, and to open the pores of the skin. But here is all the harme and diſcommoditie of theſe horſleeches, That if they be once ſet too for to draw bloud, the bodie will looke for the ſame phyſicke againe everie yeere after, about the ſame time, and be ill at eaſe for want thereof. Many phyſicians have thought it good to uſe them for the gout of the feet alſo. Well, ſet them to the hæmorrhoids, and where you will, they fall off lightly when they are full and ſatisfied, even with the verie weight of the bloud which pulleth them down; or elſe by ſtrewing ſome ſalt about the place where they ſticke too: and otherwhiles it falleth out, that they leave their heads behind them faſt fixed in the place where they ſettled, and by that means make the wound incurable and mortall, which hath coſt many a man his life: as it happened to *Meſſalinus* a noble man of Rome, and who in his time had been a Conſull, whoſe fortune it was to die thereupon, having ſet them to his knee: whereby we may ſee, that oftentimes they bring a miſchiefe for a remedie: and the red ones are they that in this reſpect ought to be feared. To prevent therfore this daungerous inconvenience, they uſe with a paire of ſizzers to clip them at the verie mouth

D as they be ſucking; and then ſhall you ſee the bloud ſpring out, as it were at the cocke of a conduit, and ſo by little and little as they die, they will gather in their heads, and the ſame will fall off, and not tarrie behind to doe hurt. Theſe horſleeches naturally are enemies to Punaiſes, in ſo much as their perfume killeth them. Furthermore, the aſhes of Bevers skins burnt and calcined togither with tar, ſtaunch eth bloud guſhing out of the noſe, if the ſame bee tempered and mingled well with the juice of porret. The ſhells of cuttles applied to the bodie with water, draw forth arrow heads, pricks, or ſpills, that ſticke deepe within the fleſh: ſo doth any ſaltfiſh if the fleſhie ſide be laid thereto; yea and freſh-water creifiſhes have the ſame effect: likewiſe the fleſh of the freſh-water Silurus (for this fiſh breedeth in other rivers beſides Nilus) applied to the place, either freſh or ſalted it makes no matter, worke with the ſame ſucceſſe. The aſhes of the

E ſame fiſh, and the fat, bee of the ſame operation, and verie attractive. As for the aſhes of their ridge-bone and prickie finns, they are taken to bee as good as Spodium, and are uſed in ſtead thereof. As touching thoſe ulcers which bee corroſive, as alſo the excreſcence of prowd fleſh growing in ſuch ſores, there is not a better thing to repreſſe and keepe them downe, than the aſhes of Cackerels or the fiſh Silurus aforeſaid. The heads of ſalted Pearches be ſingular good for cancerous ulcers: and the more effectually they will worke, in caſe there be ſalt mingled with their aſhes, and togither with knopped Majoram or Savorie and oile, be incorporat into a liniment. The aſhes of the Sea-crab burnt and calcined with lead, repreſſe cancerous ſores: and for this purpoſe, ſufficient it were to take the aſhes onely of the river creifiſh, medled with honey and lint: but ſome chuſe rather to mingle alume and honey with the ſaid aſhes. As for the ea-

F ting ſores called in Greeke Phagedænæ, they may be healed well with the fiſh Silurus, kept untill it be dried, and ſo togither with red orpiment, reduced into a powder. Likewiſe morimals, and other conſuming cankers, and thoſe ſores which be filthie and growing to putrefaction, are commonly healed with the old ſquares of the Tunie fiſh. Now if there chaunce to bee wormes and vermine breed in the ſaid ulcers, the onely means to cleanſe them is with the gall of froggs.

* *Sanguinem cieri.*

* *Retinente.*

But the hollow ſores commonly knowne by the name of Fiſtuloes, are enlarged, kept open, yea and brought to drineſſe, with tents made of ſaltfiſh conveyed into them within fine linnen rags: and within a day or two at moſt, they will rid away all the calloſitie, togither with the dead and putrified fleſh within the ſores, yea and repreſſe the eating and corroſive humor in them, if they be wrought into the forme of a ſalve or emplaſtre, and ſo applied. To mundifie ulcers, there is not a fitter thing than ſtockfiſh made into a tent with fine lint of rags, and ſo put into the ſore. Of the ſame effect are the aſhes of the ſea-urchins skin. The peeces of the fiſh Coracinus ſalted, diſcuſſe and reſolve the hote apoſtems named carbuncles, if they be applied: ſo doe the aſhes of the Barble ſalted and calcined. Some uſe the aſhes of the head of the ſaid fiſh onely with honey, or els the verie fleſh of Coracinus. The aſhes of Murrets tempered with oile, delay and take down any ſwelling. The gall likewiſe of the Sea-ſcorpion, taketh off the rouſe of ſores, and bringeth skars that overgrow the fleſh unto the levell of the other skin. The liver of the fiſh Glanus, cauſeth werts to fall off, if they be rubbed withall. Alſo, the aſhes of Cackerell heads doe the like, if they be tempered with garlick: but for the thyme werts particularly, they uſe them raw: the gall likewiſe of the reddiſh ſea ſcorpion, and the ſmall ſea fiſh Smarides, punned and brought into a liniment, doe the like. The groſſe pickle ſauce called Alex, if it be made through hot, cureth the raggedneſſe of nails: the aſhes alſo which come of Cackerell heads, do extenuat and make them fine. The fiſh Glauciſcus eaten in the owne broth, cauſeth women to have ſtore of milke: ſo doe the ſmall fiſhes called Smarides, taken with ptiſan or barley grewell; or els boiled with fennell: and in caſe they have ſore breaſts, the aſhes of Burrets or Purple ſhells incorporat with honey, doe heale effectually. A liniment made of Sea-crabs or freſh-water Creifiſhes, taketh away the offenſive hairs that grow about womens nipples or breaſt heads: the fleſhie ſubſtance alſo of the Burrets applied unto them, worke the ſame effect. A liniment made of the fiſh called a Skate, will not ſuffer womens paps to grow big. A candle-wieke or match made of lint, and greaſed all over with the oile or fat of a dolphin, and ſo ſet a burning, yeeldeth a ſmoake which will raiſe women againe, lying as it were in a traunce and dead upon a fit of the mother: the ſame doe Macquerels putrified in vinegre. The aſhes either of Pearch or Cackerell heads tempered and incorporat with ſalt, ſaverie, and oile, ſerve for all the accidents of the matrice, and more particularly in a perfume, bring downe the after-birth. Semblably, the fat of a Seale or Sea-calfe, conveighed by means of fire in a perfume up into the noſthrils of a woman lying halfe dead upon the riſing and ſuffocation of the matrice, bringeth her to her ſelfe againe: ſo doth it alſo, if with the rennet of the ſame Seale, it be put up in wooll after the manner of a peſſarie, into the privie parts. The aſhes of the Sea-fiſh called Pulmo, applied conveniently to the region of the matrice, and kept faſt thereto, purgeth women paſſing well of their monethly fleurs: of the ſame operation are Sea-urchins ſtamped alive, and drunke in ſome ſweet wine: but the river Creifiſhes likewiſe punned and taken in wine, doe contrariwiſe ſtay the immoderat flux thereof. Likewiſe it is ſaid, that a ſuffumigation of the fiſh Silurus, eſpecially that which breedeth in Africa, cauſeth women to have more ſpeedie and eaſie deliverance in childbirth: as alſo, that Crabfiſhes drunke in water, doe ſtop the exceſſive overflowing of their monethly terms; whereas with * hyſſop they ſet them a going and purge them away. Say that the infant ſticke in the birth, and by reaſon of painfull labour be in daunger of ſuffocation, let the mother drinke the ſame in like maner, there will preſent helpe enſue. Women with child uſe alſo either to eat them freſh, or drink them dried, that they may goe out their full time, and not ſlip an abortive fruit. *Hippocrates* uſeth the ſame, and preſcribeth unto women for the bringing downe of their ſickneſſe, and likewiſe to thruſt out the infant dead in their wombs, to drinke them in honeyed wine with five docke roots, ſtamped togither with rue and ſoot: and in verie truth, ſodden with ſorrell or docks and parſley, they force womens months to come downe ſpeedily, if the broth be drunke; and withall, bring plentie of milke into nources breaſts. If women have an ague, and the ſame accompanied with head-ach and much twinkling or inordinat palpitation of the eyes, it is thought they ſhall find much good by drinking them in ſome hard and auſtere wine. Caſtoreum taken inwardly in honeyed wine, is ſingular to helpe forward womens monthly purgation: the ſame beeing held to their noſthrills with vinegre and pitch to ſmell unto; or put up beneath in manner of a ſuppoſitorie, after it is reduced into the forme of trochiſques, helpeth them when by riſing of the mother they are in daunger of ſtrangulation. For to bring away the after-birth, it availeth much alſo for women to drinke the ſaid Caſtoreum with Panaces in foure cyaths of wine: as alſo it is certaine, that whoſoever

G H I K L M

*Hyſſopo, otherwiſe *Oeſypo*, i. the tried greace of unwaſhed wooll.

A ſoever take the weight of three oboli thereof, ſhall avoid the daunger that may come unto them by extremitie of cold. Moreover, if a woman great with child chaunce to goe over a place where lieth Caſtoreum, or to ſtep over the Bever it ſelfe (which is the beaſt that beareth it) ſhe ſhall be delivered before her time; yea ſhee ſhall be in great daunger upon her deliverance, if the ſame be but borne over her where ſhe lieth. A wonderfull thing it is that I read of the crampfiſh Torpedo, namely, That if it bee taken while the moone is in the ſigne Libra, and be kept for three daies togither abroad in the open aire; ſo often afterwards as it is brought into the roume where a woman is in travaile of childbirth, ſhe ſhall have eaſie and ſpeedie deliverance. In this buſineſſe alſo it is thought expedient, that the pricke which a Puffin or Forkefiſh hath in the taile, be ap-
B plied and tied faſt to the navell of a woman; provided alwaies, that it be taken foorth of the fiſh alive, and then the ſame fiſh be let goe againe and throwne into the ſea. I read in ſome writers of that which they call Oſtracium, to be the ſame that others name Onyx; but call it what you will, a ſuffumigation made thereof, is of woonderfull effect to eaſe the paine and griefe of the matrice. I find, that it hath the ſmell of Caſtoreum, and if it be burnt togither therewith in a perfume, the more good will enſue: as alſo that the aſhes thereof calcined, heale all inveterat ulcers, and ſuch as are morimals and ſcorne any ordinarie cure. And verely, the ſame authors doe report, that for carbuncles, cancres, and ſuch untoward ſores, as ariſe ſometimes about the privities of women, the moſt preſent and aſſured remedie that is to heale them, is the female Sea-crab, ſtamped after the full of the moone with the fineſt powder of ſalt, called the floure thereof, and water togither, and ſo reduced into the forme of a ſalve or liniment. The bloud, gall, and liver, of the
C fiſh Tunie, either taken freſh or old kept, be all of them depilatories, for they fetch away hair and hinder it from growing: the liver thereof punned, and togither with the roſin or oile of cedar incorporat and kept in a leaden box, hath the ſame effect. This was the deviſe that the famous midwife *Salpe* had for boies, to make them beardleſſe and appeare alwais young, and to ſet them out the better for ſale. Of the ſame operation is the fiſh called Pulmo Marinus, the Sea hare likewiſe, I meane the bloud and gall of them both: and as for the ſaid Sea-hare, being but ſtifled & killed in oile, it is as effectuall. The aſhes of the Sea-crab and Scolopendre both; the Sea-nettle [a fiſh ſo called] incorporat with vinegre ſquilliticke; the brains of the crampfiſh Torpedo tempered with alume, be all depilatories, if the place be annointed therewith the morrow after the moon is at the full. The bloudie moiſture that commeth from the little frog, which I deſcribed heretofore
D in the cure belonging to eies, is the ſtrongeſt depilatorie that is, and worketh moſt effectually, in caſe the part be dreſſed therwith while it is freſh and new: and the frog it ſelfe dried and ſtamped, and anon after boiled in three hemins of vinegre untill one of them be conſumed; or in oile after the ſame manner in ſome braſen pan, is a ſure medicine to take away haire, & hinder the comming up of it againe. In the ſame meaſure of liquor, ſome put fifteen frogs, and make therof an excellent depilatorie; like as I have ſaid alreadie among the remedies appropriat to the eyes. Moreover, horſleeches torrified in ſome earthen pan, and brought into a liniment with oile, work the ſame effect in the hairs: the very perfume or ſmoke which they caſt as they be burnt or torrified, killeth Punaiſes, if they either flie or be brought into the aire thereof. Furthermore, divers have been knowne to uſe Caſtoreum and honey in a liniment for many daies togither, as a nota-
E ble depilatorie. But in uſing any depilatorie whatſoever, this one point is generally to be obſervad, That the haires be firſt pulled up by the roots, in any place, where you would not have them to grow.

To come now unto the gumbs of children, and their breeding of teeth: the aſhes of dolphins teeth mixed with hony, is a ſoveraign medicine: yea or if you doe but touch their gumbs with a dolphins tooth all whole as it is, the effect thereof is admirable: the ſame hanged about their necks, or tied to any part of the bodie, riddeth them of ſodain frights, whereunto infants are much given. Of the ſame effect is the tooth alſo of a dogfiſh. As for the ulcers or ſores incident to their ears, or any other part of their bodie, the broth of river creifiſhes thickned with barly meale, healeth them. For other diſeaſes alſo of breaking out, a liniment made of them and oile incorporat
F togither in a mortar, is ſingular good, if they be annointed all over therewith. Touching the hot diſtemperatures and inflammations of the head, whereto little babes be much ſubject, a ſponge actually cold applied to the place, & oftentimes wet, is a good means to cure the ſame: but a frog turned inſide outward hath no fellow, if it be bound faſt unto the head: for they ſay, that it may be found all drie upon the head with drawing the heat ſo forcibly to it.

A Barble drowned in wine, or the fiſh called a Rochet, or elſe two Eels; likewiſe the fiſh named G
the Sea-grape putrefied in wine, doe infuſe this vertue into the foreſaid wine, That whoſoever drinke thereof, ſhall have no mind afterwards to any wine beſides, but fall into a diſlike and loathing thereof.

The ſtay-ſhip Echeneis, the skin of a Sea-horſe forehead, eſpecially toward the left ſide, wrapped within a little linnen cloth, and ſo hanged about one; or the gall of a live Crampe-fiſh, applied unto the genitall members in manner of a liniment, bee all means to coole the wanton luſt of the fleſh: contrariwiſe, the fleſh of river Creifiſhes powdred and kept in ſalt, given in wine to drinke, doe ſtir and provoke the appetit unto venerie. Moreover, to feed upon the fiſhes called Erythrines ordinarily at the table; to hang about the necke the liver of the frog called Diopetes or Calamita, within a little peece of a cranes skin; or the jaw-tooth of a Crocodile faſtened H
to any arme; either elſe the Sea-horſe, or the ſinews of a Toad, bound to the right arme, incite greatly to wantonneſſe and lecherie. Put a toad within a peece of a ſheeps skin newly flayed, and let one weare it tied faſt about him, he ſhall forget all love and amitie for ever.

The broth of froggs boiled in water, doe extenuat the ſcurvie thicke rouſe in the farcins or mange of horſes, and make way that they may be bathed and anointed: and verely it is credibly affirmed, that if they be cured after this manner, the skab will never returne againe. The expert midwife *Salpe* affirmeth for certein, That doggs will not barke, if there be given unto them in a morcell of bread or gobbet of fleſh, a live frog.

In this diſcourſe of Water, and the things concerning it, ſomewhat ought to bee ſaid as touching Calamochnus, which otherwiſe in Latin is named Adarca: it groweth about ſmall canes I
or reeds, and is engendred of the froth of ſea water & freſh water togither, where they both meet and are intermingled: a cauſticke qualitie it hath; in regard whereof, it entreth into the compoſitions called Acopa, which ſerve for laſſitude, and thoſe that are benummed with cold. It is emploied alſo in taking away the pimples or ſpots in womens faces like to lentils.

As for Reeds and Canes, this is their verie proper place alſo, wherein they ſhould be treated of. And to begin with that reed or cane called Phragmitis, which is ſo good for mounds & hedges; the root thereof greene gathered and punned, is ſingular for diſlocations, and the paine of the backebone, if the place affected be annointed with it, incorporat in vinegre. But the rind of the Cyprian cane, which alſo is named Donax, burnt into aſhes, is ſingular for to recover haire againe where it was ſhed by occaſion of ſickneſſe, and to heale old ulcers. The leaves alſo ſerve K
verie well to draw forth any ſpills, pricks, or arrow heads that ſtick within the fleſh, yea and to extinguiſh S. *Anthonies* fire. As for the floure or downe of their catkins, if it chaunce to enter into the ears, it cauſeth deafeneſſe. The blacke liquour reſembling inke which is found in the cuttle-fiſh, is of that force, that if it be put to the oile of a lampe burning (*Anaxilaus* ſaith) it will drown and put out the former cleare light, and make all thoſe in the roume to looke like blackamores or Æthiopians. The hedge-frog, otherwiſe called a toad, boiled in water & given to ſwine among other draffe to drinke, cureth all their diſeaſes: and of the ſame effect are the aſhes of any other frogs beſides. Rub a peece of wood with the fiſh called Pulmo Marinus, it will ſeeme as though it were on a light fire; in ſo much as a ſtaffe ſo rubbed or beſmeared with it, may ſerve in ſtead of a torch to give light before one. L

Chap. xi.

That there be of fiſhes and other creatures living in the Sea, one hundred ſeventie and ſix ſeverall and diſtinct kinds.

HAving thus treated before ſufficiently of the natures and properties of Fiſhes, and ſuch creatures as the water doth yeeld; it remaineth now for a finall concluſion, to preſent under one view, all thoſe fiſhes name by name, which are engendred and nouriſhed not only in thoſe mediterranean and inland arms of the ſea, which for many a mile take up a great part of the continent and firme land, but alſo in that vaſt and wide ocean without the main, bounded as M
it were and limited only by the compaſſe and circumference of the heaven: and thoſe, namely as many as be knowne, may be reduced all into 176 kinds: a thing which cannot bee done either in the beaſts of the land or foules of the aire. For how is it poſſible to decipher and particularize the wild beaſts and foules of India and Æthyopia, of the deſarts, and of Scythia, which we are not come

A come to the knowledg of, seeing we have found so many different sorts in men, of whom we have some notice and intelligence? To say nothing of Taprobane, and other Islands lying within the Ocean, whereof so many fabulous reports are delivered: certes, there is no man but hee must needs confesse and agree to this, that it was not possible in this hystorie of Nature to comprise al sorts of creatures which the earth and aire doe yeeld. Howbeit, those that are bred in the Ocean, as huge and vast as it is, may bee comprehended under a certaine number: a woonderfull matter that we should be better acquainted with those, considering how Nature hath plunged and hidden them in the deepe gulfes of the maine sea!

To begin then with the greatest monsters and beasts that this unruly element of the water doth breed: we find therin the sea-Trees, Whirlepooles, greater Whales, Pristes, Tritons [*i.* sea
B Trumpetters] Nereides [*i.* Meremaids] Elephants, sea Men and Women, Wheeles, sea Tuns or Pipes, [1] Rams, and smaller Whales accompanying the bigger. Besides, other [2] Rams that resemble the ordinarie shape of fishes; Dolphins, and the sea Calves or Seales, whereof the Poët *Homer* writeth so much. Furthermore, the sea Tortoises, which serve for [3] roiot, wantonnesse, and excesse: the Bevirs, which are so much in request among [4] Physicians. As for the Otters, albeit a kind of Bevers they are, yet because I never heard that they came into the salt water, I make no great reckoning of them; for my purpose is to rehearse those onely which inhabit or haunt the sea: moreover, the sea Dogs: the Curriors, Posts, or Lacquies of the sea: the horned fishes: the Swordfish or Emperour of the sea, and the Sawfish. Over and besides, those which live indifferently in the sea, the land, and the river, to wit, the water Horses and the Crocodiles: others again
C that ordinarily keepe in the sea, and yet come up into the rivers, but never land, to wit, the Tunies, as well the browne Thunnies, as the younger sort, [5] Thunnides or Pelamides. The Siluri, the blacke Coracini, and Perches. As touching those that never came forth of the sea, the [6] Sturgeon, the Guilthead, the Kod, the Acarne, Aphya, Alopecias, the Yeels, and [7] Araneus. The bellowing fish Box, Batis, Banchus, [8] Barrachus, and Belone, with all the kind of those which wee call Needle fishes, and also Balanus. The sea Raven Corvus, and [9] Cytharus: all the sorts of the Chrombi: the Carpe, Chalcis, and [10] Cobio: Callarias of the Cods kind, but that it is lesse: Colias, whether it be Parianus [of Parium the Colonie] or Sexitanus, so called of a citie in Granado or Bætica, a fish *resembling Lizards: of which and of the young Tunie Pelamis (both bred in Mœotis) being chopped and cut into peeces and so salted, are made those Quadrants or Square-
D rands, called Cybia. For this you must understand, that the Tunie is called Pelamis, *when after 40 daies he returneth out of Pontus or the Euxine sea into Mœotis: wheras the said small Pelamis taketh the name of Cordyla, when it goeth first forth of the said great lough or lake Mœotis, and entreth into the sea beforenamed. Moreover, in the said meer Mœotis be these fishes besides, to wit, Cantharus, Callionymus, otherwise named Vranoscopus, and Cinædi, which bee the onely fishes that be all over yellow; Cnide, which we in Latin call Vrtica, *i.* the Nettle: all the sorts of Crabs, the gaping small Cockles and Muskles, whether they bee the rough Chamæ-trachaæ, the smooth Chamæ-leoi, or the Chamæ-pelorides: which be of divers kinds distinct one from another, both in forme of roundnesse, and varietie of colours: as also the Cockles named Chamæ-glycymerides, which be bigger than the former Pelorides, together with those that the
E Greekes call Colycia or Corophya. Moreover, sundrie sorts of other shell fish, and among them those that engender and beare pearles, and thereof be called Mother-pearls. The wilkes also and winckles which resemble shell-snailes: of which kind are the Pentadactyles, Melicembales, and the prickly Echinophoræ, whose shels serve to sound or wind withall. Over & besides these shell fishes, are those winckles of a round forme, the shels whereof are much used to lade up oyle. Furthermore, the sea Cucumber and Cynopus, the sea Craifish Cammarus, Cynosdexia, and the sea Dragon. As for that which is named Dracunculus, some are of opinion, That it differeth from the foresaid Draco; and like it is to the Chough-fish Gracculus: sharpe prickes it hath in the gils, and those pointing toward the taile: like as the sea scorpion, which thereby woundeth and hurteth those that would seeme to take it up in their hands. There is besides the Erythinus,
F the stay-ship Echeneis, and the sea Vrchin. The black Elephants also, which be the blacke kind of the Lizards, having foure feet, and those cloven and two-forked; besides two arms with two joints apeece, and each of them armed with a little forked cley, and closing in manner of teeth. Then have you the fish called Faber or Zeus, that is, the Goldfish or Doree. All the sorts of Glauciscus, the Glanis, the Gonger or Conger, the Hearing or Pilchard Gerries, Galeos, and *Garus. Also the

[1] So called of the forme of warlick engins of batterie, called in Latin *Arietes*.
[2] And yet have some proport ō of the land beast so called.
[3] *Luxuriæ*, haply because the form of a Lute was devised first by the shel thereof: or sumptuous buildings either framed archwise according to the, or els adorned & fecled with their shels by Marquetage.
[4] By reason of their stones, which yeeld Castoreum.
[5] Some take *Thunni* for the Milters, and *Thunnides* for Spawners.
[6] *Acipenser*.
[7] A kind of Crab, which some cal S. *Bernard* the Heremite.
[8] *Diable de mer*.
[9] A kind of Turbot.
[10] A Gougeon.
* *Lacertorum æmulus*, as *Dalechampius* readeth.
* *Dalechampius* readeth it contrariwise, and correcteth the place out of *Aristotle*.

* Which some take for the Pikerell.

the coaſt Crabfiſh called Hippeus, or Stay-horſeman Hippuros; the ſea Swallow fiſh, Halipleumon, or Pulmo Marinus; the ſea-lights, heart-fiſh, the liver of the ſea, and Helacathenes. All the ſorts of the ſea-Lizards: the flying Calamarie: the Locuſts and Lanternes of the ſea, Lyparis, Lamyrus, the ſea Hare and ſea Lions, which have cleſes or armes in manner of Crabfiſhes, but in other reſpects reſembling Locuſts. The Barble, the Merling or Whiting (among ſtone-fiſhes well eſteemed) and the Mullet: the blacke taile Perch [which ſome take for a Ruffe, others for a ſea Breame:] the Cackerell, the Meryx, the Lamprey, the little Muskle, the Limpin, the Myſcus, and the Burret. The ſeven-eye Oculata, the Ele-port Ophidion, the Oyſtre, the *eares of the ſea called Otia, and Orcynus. This fiſh of the Tunie kind named Pelamides is the biggeſt, and never returneth againe into Mœotis, like unto a Triton; and the meat therewith is the better for age. The Lompe, Puddle, or ſea Owle, and the grunting Molebout: moreover, the fiſh Phager, the Mole or Lepo counted among ſtonefiſhes, and the Pelamis, the greateſt of which kind is called Apolectus, and harder it is than the Triton: alſo the ſea-god Phorcus, and Phtitharus: the Plaice or Hallibut, and the Puffin: all the kinds of Pulpes or Pourcuttils. The greateſt Scallops alſo, and thoſe which during Summer bee blackeſt, whereof the beſt ſort bee thoſe which are taken about Mytelenæ, Tyndaris, Salonæ, Altinum, Antium, and the Iſland Pharos neare to Alexandria in Ægypt. Alſo the little Scallops, the Purples, & the ſea Perches, named Percides: the Nacres and their hunters, called Pinnotheræ. Over and beſides, the fiſh called Skate, which ſome will have to be Rhina in Greeke, and named by us in Latine Squatus, and the Birt or Turbot: the Guilthead Scarus, which at this day is thought to be a principall fiſh: the Sole, the Sargus, the Shrimp, and the Sarda, for ſo they call the long Pelamis when he commeth out of the Ocean. The Maquerel or Scomber, the Stockfiſh, the Sparus, Scorpæna, Scorpios, Sciadeus, Sciæna, the Scolopendra, the ſerpent fiſh Smyrus, the Scepines: the ſhell-fiſh pointed like a Turbant, Strombus: & Solen, otherwiſe called Aulus, Donax, Onyx, or Dactylus, all ſhell-fiſhes made like knives: the aſſe-houſe oyſtre Spondylus, and the ſhell-fiſh Smarides, the Starre, and the Spunge. Then follow the noble ſtonefiſh Turdus, and the Thomus Thurianus, ſold in peeces or rands cut forth, which fiſh ſome call Xiphia, or the Sword fiſh. The Theſſa, Torpedo or Crampefiſh, and Tethea. Triton alſo, which is reckoned among the greater kind of the Pelamides, whereof are made thoſe ſquare taile-peeces of the Tunie, called Vræa Cybia. Laſt of all, the Vrenæ, the ſea Grape or the Emperour with a ſword, called Xiphias. And here I thinke it not amiſſe to annex the names of diverſe fiſhes ſet downe by the Poët *Ovid*, which are not to be found in any other Authour: But haply thoſe breed in the great ſea of Pontus, in which realme he began that booke *De Ponto* in his latter daies. In the firſt place he nameth *Bopgyrus, which liveth among the rockes: the red Orphus, and the blacke Rhacinus, the painted and ſtreaked Mormyræ, and the golden coloured Chryſos. Moreover, the little Teragus, and Labrus with the faire and pleaſant taile. Likewiſe the Epodes, which are of the broad or flat kind, named Lati. All theſe be notable fiſhes: but over and beſides, he reporteth the ſpeciall properties & nature of ſome: as namely that the Chaune dooth conceive of it ſelfe without a male: that the Glaucus never is to bee ſeene in Summer: that Pompilus alwaies accompanieth the ſhips under ſaile: and Chronius buildeth a neaſt in the very water. He ſaith moreover, That Helops is a ſtranger to us in this part of the world, and not knowne in our ſeas: whereby it is evident that they be deceived who take it for the Sturgeon Acipenſer; and yet many reckon this Elops to have the daintieſt taſt, and to be the moſt delicat meat of all fiſhes. There are over and beſides other fiſhes, named as yet by no writer, to wit, that which in Latine wee call Sudis, the Greekes Sphyræna, which (as it ſhould ſeeme by the name) hath a ſnout or muſſle reſembling a ſharpe ſtake or ſpit, and may for quantitie be counted among the biggeſt: a rare fiſh, but of no baſe and baſtard kind. There bee alſo of the Nacres thoſe which are called Pernæ, taken and gathered in exceeding great plentie about the Iſlands of Pontus: their manner is to ſtand or ſticke faſt planted upon the ſea ſand, and made they are in faſhion of the long ſhanke of a Swine; they gape alwaies toward the coaſt which is cleare; and never doe they hunt for their food, but they yawne at leaſt a foot wide. Teeth there bee growing round about the edges of the ſhell, and thoſe ſtand thicke together, and when they ſhut or cloſe their ſhels, the foreſaid teeth run one betweene another in manner of a combe. In ſtead of a calloſitie within, they have a great lumpe of fleſh. As for the fiſh Hyæna, I my ſelfe have ſeene one of them taken in the Iſland Ænaria, which uſed to put forth and draw in his head at his pleaſure.

* Which are a kind of oyſtres

*Some read *Bos-piger.*

Thus

A Thus much of Fishes worth the naming. For besides these, I am not ignorant that there bee other base excrements that the sea voideth and purgeth, which I hold to be verie unfit and not worthie to be ranged among Fishes and living creatures, but rather to be reckoned as Kilpes, Reike, and other sea weeds.

B

THE XXXIII. BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

C

Of Mettals and Minerals, and their natures.

¶ The Proëme.

NOw is it time to enter into the discourse of the Mettals and Minerals, the very riches and precious treasure of the world, which men so curiously and carefully seeke after, as that they sticke not to search into the verie bowels of the
D *earth by all the meanes they can devise: for some you shall have (to enrich themselves) for to dig into the ground for mines of gold and silver, base mettall Electrum, Copper and Brasse: others again, upon a desire of daintie delights and braverie, to lay for gems and precious stones, for such minerals (I say) which may serve partly to adorne their fingers, and partly to set out the walls of sumptuous buildings with costly colours, rich marbles, and perphyries. Lastly, there bee many, who to maintaine rash quarrels and audacious attempts, spare for no labour to get yron and steele, and esteeming it better than gold, for cruell warres and bloudie murthers. In summe, there is not a veine in the whole earth but wee prie and search into it: we follow it also as farre as it goeth. Thus having undermined the poore ground, wee live and goe aloft upon it, as over hollow vaults and arches under our feet: and yet wee would seeme to wonder, that otherwhiles she cleaveth asunder into wide and gaping chinkes, or else trembleth and quaketh againe: and we will not see how these be apparent signes of the*
E *wrath of this our blessed mother, which wee wring and force from her, to expresse the indignation that she taketh for this wrong and misusage. We descend into her entrailes: we goe downe as far as to the seat and habitation of the infernall spirits, & all to meet with rich treasure: as if the earth were not fruitfull ynough and beneficiall unto us in the upper face thereof, where she permitteth us to walke and tread upon her. Howbeit, in all this paines that we take to ransacke the mines thereof, the least matter of all other is to seeke for any thing that concerneth Physicke and the regiment of our health: For among so many maisters as there be of mines, where is there one that would bee at such expence of digging, in regard of any medicines. And yet I must needs say, that as the earth otherwise is no niggard, but bounteous and liberall, readie also and easily entreated to bring forth all things good and profitable for us: so in this behalfe she hath furnished us sufficiently with holesome drougs and medicinable simples growing*
F *above and fit for our hand, without need of digging deepe for the matter. But the things that shee hath hidden and plunged (as it were) into the bottome, those be they that presse us downe, those drive & send us to the devill in hell: even those dead creatures (I say) which have no life nor doe grow at all. In such sort, as to consider the thing aright, and not to captivat our spirits to such base matters, How far thinke we, will covetous minded men pierce & enter into earth? or when will they make an end of these mines,*

hollowing

hollowing the ground as they doe in all ages from time to time, and making it void and emptie? Oh how innocent a life, how happie and blessed, nay, how pleasant a life might we lead, if we coveted nothing else but that which is above the ground: and in one word, if we stood contented with that which is readie at hand and even about us. But now, not sufficed with the gold which we fetch out of the mines, we must seeke for the greene earth Borras also, which lieth hard by, yea, and give it a name respective unto gold, whereby it might be thought more deare and precious. For why? we thought not the invention and finding out of gold alone to be ynough for to infect and corrupt our hearts, unlesse we made great account also of that vile and base minerall, which is the very ordure of gold, and no better. Men upon a covetous mind would needs seeke for silver, and not satisfied therewith, thought good withall to find out Minerall vermillion, devising meanes how to use that kind of red earth. Oh the monstrous inventions of mans wit! What a number of waies have we found to enhaunce the price and value of every thing! for painters of the one side with their artificiall painting and enamelling: the gravers on the other side with their curious cutting and chasing, have made both gold and silver the dearer by their workemanship: such is the audacitie of man, that he hath learned to counterfeit Nature, yea, and is so bold as to challenge her in her workes. And wherein is the art and cunning of these artificers so much seene, as in the workmanship of such pourtraitures upon their gold and silver plate, which might incite & provoke men to all kind of vices: for in processe of time we tooke pleasure to have our drinking bols and goblets engraven all over with those works which represent lust and wantonnesse: and our delight was to drink out of such beastly cups which might put us in mind of sinfull and filthie letcherie: but afterwards these cups also were cast aside and laid away, men began to make but base account of them; gold and silver was so plentifull and common, that we had too much thereof. What aid we then? Forsooth wee digged into the same earth for Cassidonie and Crystall, and we loved to have our cups and other vessels of such brittle minerals; and the more precious we held them, as they were more subject to breaking: so as now adaies he is thought to have his house most richly furnished, who hath his cupbourds best stored with this tickelish ware: and the most glorious shew that we can make of excesse and superfluitie, is this, To have that which the least knocke may breake, and being once broken, the peeces thereof might bee worth nothing. Neither is this all, for stay we cannot here, we are not yet at cost ynough, unlesse we may drink out of a deale of precious stones. Our cups otherwise chased, engraved, and embossed in gold, must be set out with hemerealds besides: to maintaine drunkennesse, to make a quarrell to carouse and quaffe, we must hold in our hand and set to our mouth the riches of India. So as, to conclude, our golden plate comes behind precious stones and pearles, and we count it but an accessarie and dependant, which may be spared.

*Chrysocolla, i. Gold-soder.

Chap. I.

When mines of gold grew first into request. The beginning of gold rings. The quantitie of gold in treasure among our auncestors in old time. Of the Cavallerie and Gentrie of the Romanes. The priviledge of wearing golden Rings.

OH that the use of gold were cleane gone: Would God it could possiblie be quite abolished among men, setting them as it doth into such a cursed and excessive thirst after it, if I may use the words of most renowned writers: a thing that the best men have alwaies reproched and railed at, and the onely means found out for the ruine and overthrow of mankind. What a blessed world was that, and much more happier than this wherein wee live, at what time as in all the dealings betweene men, there was no coine handled, but their whole trafficke stood upon bartering & exchanging ware for ware, and one commodity for another; according as the practise was in the time of the Trojane war, as *Homer* (a writer of good credit) dooth testifie. And in that manner (as I take it) began first the commerce of negotiation among men for the maintenance of their societie and living together: for so hee reporteth, That some bought that which they stood in need of, for Bœufes hides; others, for yron or such commodities as they had gotten in bootie from their enemies. And yet I must needs say, that even *Homer* himselfe esteemed gold of great price, as may appeare by the æstimate that he made thereof in comparison of brasse, when hee saith, That *Glaucus* exchaunged his golden armour, worth 100 *oxen, for the [brasen] harneis of *Diomedes*, which

*It is thought that hereby are meant certaine peeces of silver coine, stamped with the portraiture of a bull or ox, called *Didrachma*, & were worth two drams or deniers Romã. χρύσια χαλκεῖα, ἑκατόμβοια ἀντιτύπων.

A which was valued but at nine Bœufs: according to which manner practiſed in thoſe daies, even at Rome alſo (as it may appeare by the old records) there were no other penalties and fines impoſed upon thoſe that tranſgreſſed the lawes, but ſuch as conſiſted in Bœufes and Muttons, and under that name paſſed all the amercements that were levied. Well, a bad example and precedent gave he unto the world, who firſt deviſed to weare rings upon the fingers: But who hee was that did this harm unto mankind, it appeareth not for certaine upon any record. For as touching the reports that goe of *Prometheus*, I hold them all but fabulous tales: and yet in all the auncient pictures and portraitures of him, he is to be ſeene by a generall conſent of antiquitie, with a ring of yron: howbeit, I ſuppoſe that they repreſented thereby his bonds and impriſonment, rather than any cuſtome that hee had to weare a ring as an ornament upon his finger. And verely con-

B cerning the ring of king **Midas*, which if the collet were turned about toward the palme of the hand, cauſed them to goe inviſible that ſo wore it: is there any man (thinke you) that judgeth it not more fabulous than the other of *Promotheus*? But to come more particularly unto gold, the greateſt credit and authoritie that it got, was by wearing it in rings upon the fingers, and thoſe onely and altogether of the left hand. And yet this was no faſhion at firſt among the Romanes, whoſe manner was to uſe no other but of yron, to ſhew that they were good ſouldiours, skilfull and expert in feats of armes. Whether the ancient kings of Rome were wont to have gold rings upon their fingers, I am not able to ſay for certaine. Sure it is, that the ſtatue of king *Romulus* in the Capitoll hath none. Neither is there any to be ſeene in the other ſtatues of the Roman kings, ſave onely of *Numa*, and *Servius Tullius*; no nor in that of *Lucius Brutus*: Whereat I marveile

C much, and eſpecially at the two *Tarquines* kings of Rome, conſidering that they were deſcended of the Greeks, from whence came up the firſt uſage of theſe gold rings, howſoever yet at this day in Lacedæmon there be none worne but of yron. Howbeit, this is recorded and knowne for a truth, That *Tarquinius Priſcus*, the firſt of all the *Tarquins*, honoured a ſon of his with a brooch or tablet of gold pendant at his necke, for that whiles he was under ſixteene yeares of age, and as yet in his Prætexta, he had killed an enemie in plaine fight. And therupon was taken up the maner firſt (which alſo continued afterward) to hang that *ornament about the necks of thoſe gentlemens ſonnes who were men at armes and ſerved in the wars on horſeback, in token of knighthood and chevalrie: whereas other mens ſonnes ware a ribband onely. And therefore great marveile I have at the ſtatue of the ſaid prince king *Tarquine*, ſurnamed *Priſcus*, that it ſhould bee

D without a ring on his finger. And yet beſides all this, I read, that there hath beene ſome variance and difference in old time about the naming of rings: The Greeks impoſed a name derived from the finger, and called it Dactylios. The Latines here with us in old time named it Vngulus: but afterwards, as well we as the Greekes, tearmed it Symbolum. Certes, long it was firſt (as appeareth evidently by the Chronicles) ere the very Senatours of Rome had rings of gold. For plaine it is, that the State allowed and gave rings only to certain eſpeciall lieutenants when they were to go in embaſſage to forraine nations: and in mine opinion, it was for their credit and countenance, for that the moſt honourable perſonages in ſtrange countries were diſtinguiſhed from others by that ornament. And verely, no perſon (of what degree ſoever) was wont to weare rings, but ſuch as had received them firſt from the Commonwealth upon that occaſion: and ſo it ſerved them or-

E dinarily in triumph, as a token and teſtimoniall of their vertue and valour. For otherwiſe, he that triumphed in Rome, although there was a Tuſcane coronet all decked with ſpangles of gold, born up behind and held over his head, had no better than a ring of yron upon his finger, no more than the ſlave at his backe, who haply caried the ſaid Tuſcane chaplet. For certainly in that maner triumped *C. Marius* over king *Iugurtha*: and as the Chronicles doe ſhew, received not a golden ring, nor tooke upon him to weare it before his third Conſulſhip. And even thoſe alſo who from the State had golden rings given them, in regard of embaſſage aforeſaid, never uſed them but when they came abroad into open place, for within dores they might wear none but of yron: which is the reaſon, that even at this day the wedding ring which the bridegroome ſendeth as a token *of eſpouſals to his bride, is of yron ſimply without *any ſtone ſet in it. Neither, ſo farre as I

F can find by reading, were there any golden rings in uſe and requeſt about the time of the Trojan warre: for ſure I am, that the Poët *Homer* maketh no mention of them at all, who otherwiſe ſpeaketh of the braverie and rich attire of thoſe times. And when he talketh of writing tablets, ſent ordinarily in ſtead of letters miſſive; when hee writeth of clothes and apparels beſtowed in chiſts and coffers; when he telleth us of veſſell, as well gold as ſilver plate; he ſaith they were all bound

and

*Gyges rather, as appeareth by *Plato* and *Cicero*.

*Called *Bulla*, which was in forme of the Heart: & after they were growne to be men, *i.* at ſeventeene yeares of age they offered it up to the Lares: like as yong maidens manageable preſented *Venus* with yong babies of clouts ſuch as they were wont to make and play withall, as being now deſirous to have babes indeed of their owne bodies. *Alex. ab Alex. lib. 2. cap. 25. & lib. 5 cap. 18.*

* It was called *Pronubus Anulus.*

* ἀπείρατον ξύλου ἄλλου.

and truſſed faſt with ſome ſure knot, and not ſealed up with any marke of a ring as the order is in G
theſe daies. Moreover, when he reporteth of any challenge made by the enemie to ſingle fight,
and ſheweth how the captaines fell to caſt their ſeverall lots for the choiſe of them which ſhould
performe the combat, this was never done by the ſignets of rings, but by ſome other eſpeciall
markes that every one made. Alſo, when he taketh occaſion to ſpeake of the workmanſhip of the
*As of *Vulcan.* gods, he rehearſeth buckles, claſpes, and buttons of gold, other jewels and ornaments alſo belon-
ging to the attire of women, as eare-rings and ſuch like of their making, which at the beginning
were commonly made, but he ſpeaketh not one word of golden rings. And verely in my conceit
whoſoever began firſt to weare theſe rings, did it covertly by little and little, putting them upon
the fingers of the left hand, the better to hide them, as if they were aſhamed to have them open-
ly ſeene: whereas if they might have avowed the honouring of their fingers by that ornament, H
they ſhould have ſhewed them at the firſt upon the right hand. Now if any man object and ſay,
that the wearing them on the right hand might be ſome impeachment to a ſoldior for uſing his
offenſive weapon which he beareth in that hand; I alleadge again, that the hinderance was more
in the left hand, which ſerveth to hold and manage the targuet or buckler defenſive. I read in the
ſame Poët *Homer* aforeſaid, that men uſed to plait & bind up the treſſes of their hair with gold:
and therefore I wot not well whether men or women firſt began the manner of ſuch braiding the
lockes of the haire.

As touching gold laid up for treaſure, little was there of it at Rome for a long time: For ſurely,
when the citie was taken and ſacked by the Gaules, and that the Romans were to buy & redeeme
their peace for a ſumme of money, there could not bee made in all Rome above one thouſand I
pound weight of gold. Neither am I ignorant, that in the third Conſulſhip of *Cn. Pompeius* there
was embezeled and ſtollen two thouſand pound weight of gold out of the throne or ſhrine of *Iu-*
*By *M. Craſſus.* *piter* within the Capitoll, which had ben there beſtowed and laid up by **Camillus*: wherupon ma-
ny men have thought, that there were two thouſand pound weight of gold gathered for the ran-
ſome of the citie. But ſurely look what overplus & ſurcreaſe there was above the foreſaid weight
of one thouſand pound it was of the very bootie and pillage of the French, and taken out of the
temples and chappels in that part of the citie whereof they were maiſters. Moreover, that the
Gaules themſelves were wont to goe to the warres bravely ſet out and enriched with gold, it ap-
peareth by this one example of *Torquatus*, who ſlew a Gaule in combat, and tooke from him a
maſſie collar of gold. Apparent it is therefore, that all the gold, as well that of the Gaules, as that K
which came from the temples aboveſaid, amounted to the ſaid ſumme, and no higher: to the
light and knowledge whereof we come by meanes of revelation from Augurie, which gave us
to underſtand, That *Iupiter Capitolinus* had rendered again the foreſaid ſumme in duple propor-
tion. And here by the way there commeth to my remembrance another thing, not impertinent
to this place, conſidering I am to treat againe of rings: when the ſexton or keeper of this cell was
apprehended, and the queſtion demanded, What was become of the treaſure aforeſaid of 2000
pound which *Iupiter* had in cuſtodie, and which now was out of the way and gone? hee tooke the
ſtone that was in the collet of his ring which hee ware, crackt it betweene his teeth, and preſently
died thereupon: whereby the truth was not bewraied & revealed, as touching the theefe that rob-
bed the ſaid treaſure. Well, reckon the moſt that can be, ſurely there was not above 2000 pound L
weight of gold to be had in Rome, when the citie was loſt; which was in the 364 year after the firſt
foundation thereof, at what time (as appeareth by the rols of the Subſidie booke) there were in
Rome, to the number of 152580 free citizens. And what was 2000 pound in proportion to ſuch
a multitude of people. Three hundred and ſeven years after, when the temple of the Capitoll was
on fire, all the gold to bee found therein, as alſo in all the other chappels and ſhrines aroſe unto
thirteen thouſand pound weight, which *C. Marius* the yonger ſeazed upon and conveighed away
to the citie Prænеſte. And all the ſame was recovered againe and brought backe again by *Sylla*
his enemie, who under that title caried it in triumph, beſides ſeven thouſand pound weight of ſil-
ver, which hee raiſed out of the ſpoile of *Marius*. And yet nevertheleſſe, the day before hee had
cauſed to be caried in a pompe of triumph fifteene thouſand pound weight of gold, & one hun- M
dred and fifteene thouſand pound of ſilver, which came of the reſt of the pillage gotten by that
victorie of his.

But to returne againe unto our diſcourſe of gold rings: I doe not read that they were ordina-
rily uſed, before the daies of *Cn. Flavius* the ſonne of *Annius*: This *Flavius* being otherwiſe a
man

A man of meane and base parentage, as whose grandsire by his fathers side had been no better than a slave enfranchised: howbeit having a pregnant wit of his owne, and brought up daily under a good schoolemaster *Appius Claudius* surnamed the Blind (whom he served as his Scribe, Clerke, or Secretarie) he grew into inward credit and favour with his master, that for his better advancement, he opened unto him the whole course of daies pleadable and not pleadable, exhorting and perswading him withall, to publish that secret & mysterie to the view and knowledge of the whole citie: which the said *Flavius* (after much conference and consultation with *Appius*) did, and effected accordingly: whereupon he became so gracious with the whole bodie of the people, (who alwais before were woont to hang everie day upon the lips of some few of the chiefe & principall Senators, for to have the information and knowledge of the said daies) that in the end a Bill pro-
B mulged by him, passed by general assent of them all, for to be created Ædile Curule togither with *Q. Anicius* of Præneste (who not many yeers before had been a professed enemie & borne arms against the Romans;) without any regard had in this election, either of *C. Petilius* or *Domitius*, who were nobly born, and had two Coss. to their fathers, who notwithstanding stood for the said dignitie & honourable place. And more than that, this *Flavius* had a speciall grace besides granted, To bee at the same time one of the Tribunes also or Provosts of the comminaltie: At which indignitie, the Senat tooke such disdaine, and chafed so for despight and anger, that as we read in the ancient annals and chronicles of our citie, there was not one Senatour of them all but laid away his golden rings, & gave up his place. Many are of opinion (although they be far deceived) that the knights and men of arms also did the semblable, and left off their rings the same time.
C And this likewise goeth currant and is generally received, That they cast aside the caparisons and trappings of their bard horses; for these be the two badges and marks which causeth them to be called Equites, as one would say, knights, men of arms, or horsmen. True it is besides, that in some annals we find recorded, that it was the nobilitie onely of Rome that gave over their gold rings, and not generally the whole bodie of the Senat. Well, howsoever it was, this hapned in that yeer when *P. Sempronius Longus* and *L. Sulpitius* were Consuls. But *Flavius* abovesaid, seeing what trouble and discontentment was arisen hereupon throughout the citie, vowed to erect and build a temple in the honour of *Concord*, if he could reconcile the estate of the Senat, and the order of the Gentlemen againe to the common people. And seeing that he could not be furnished with mony out of the publick treasure of the citie for the defraying of charges requisit to this peece of
D worke, he made means to have certain extreame usurers condemned to pay good round sums of money: and with these fines, a little chappell he caused to be made all of brasse, and reared it in the place appointed for Embassadours out of straunge countries to wait and give attendance in, called Græcostasis, the which was at the head of the publicke grand place or hall of assemblies called Comitium: where, in a table of brasse hee tooke order, there should bee cut and engraven the veritie of the dedication of the said chappell, which was 104 yeers after that the temple in the Capitoll was dedicated, and in the 448 yeere from the foundation of the citie. This is the first and most ancient evidence that may be collected out of all the antiquities of Rome now extant, as touching the usage and wearing of Rings. Another testimonie we have thereof in the second Punicke war, which implieth, that rings in those daies were used more ordinarily, as well by com-
E mons as gentlemen and nobles: for otherwise, if they had not ben so usually worne as well by one as another, *Annibal* could never have sent to Carthage those three modij of rings which were plucked from the fingers of those Romanes who died in the battaile of Cannæ. Moreover, the Chronicles doe beare witnesse, that the great quarrell betweene *Cæpio* and *Drusius* (from which arose the sociall war of the Marsians, and the ruine of the state) grew by occasion of a ring sold in portsale, which both of them would have had, the one as well as the other. Neither at that time verily did all Senators weare gold rings; for knowne it hath been within the remembrance of our grandfathers, that many of them (even such as bare the Pretourship) in their old age and to their verie dying day, never wore any other rings but of yron. The same doth *Festella* report of *Calphurnius*; and of *Manilius* also, who was lieutenant under *Caius Marius* in the war against
F king *Iugurtha*. And many other Historians affirme the like of *L. Fusidius*, him I meane, unto whome *Scaurus* dedicated that booke which hee compiled of his life. There is a whole house or familie at Rome, of the *Quintij*, wherein (by auncient custome and order) there was never any knowne, so much as the verie women, to weare any gold about them. And even at this day, the greater part of those nations and people who live under the Empire of Rome, know not what

theſe rings meane. All the countries of the Eaſt throughout, and Ægypt generally, at this time G
content themſelves with ſimple writings and bare ſcripts, without any ſeale or ſigne manuell ſet
unto them. But ſo far off are we in theſe daies from keeping us to the plaine houpe rings of our
aunceſtors, that as in all things elſe, ſo in them alſo we love to chaunge and alter everie daie; ſo
given wee are to exceſſe and ſuperfluitie: for now, many muſt have curiouſly ſet in their rings,
pretious ſtones of excellent beautie and moſt exquiſit brightneſſe; and unleſſe their fingers be
charged and loden againe with the riches and revenews of a good lordſhip, they are not ador-
ned and decked to their mind: But I purpoſe more fullie to ſpeake hereof in my treatiſe of gems
and precious ſtones. Others againe will have in their rings and ſtones ſundrie figures and pour-
traitures as they liſt themſelves engraven, that as there bee ſome rings coſtly for the matter, ſo
others againe ſhould be as pretious for the workemanſhip. Yee ſhall have many of theſe wan- H
tons and delicat perſons make conſcience (forſooth) to cut and engrave ſome of their pretious
ſtones for hurting them; and (to ſhew that their rings ſerve for ſomewhat elſe than to ſeale and
ſigne withall) doe ſet the ſaid ſtones whole and entire as they be. And divers there are, who will
not encloſe the ſtone with gold on the inſide of the colet which is hidden with the finger, to the
end (forſooth) that it may touch the naked skin, and be ſeen through. And ſuch an opinion they
have of theſe ſtones, that gold is worth nothing in compariſon of many thouſands of them now
in uſe and requeſt. Contrariwiſe, many there are who will have no ſtone at all in their rings, but
make them all of maſſive gold, and therewith doe ſeale: a deviſe that came up in the time of
Claudius Cæſar the Emperour. Furthermore, in theſe our daies ſome ſlaves ſet yron within a col-
let of gold, in ſtead of a ſtone: and others againe having their rings of yron, yet they adorn and I
ſet them out with the moſt pure and fine gold that may be had. This licence (no doubt) and li-
bertie of wearing rings in this order, began firſt in Samothrace, as may appeare by the name of
ſuch rings, which therefore are called Samothracia. Now to come againe to our golden rings:
the manner was in old time to weare rings but upon one finger onely, and namely that which is
the fourth or next to the little finger, as wee may ſee in the ſtatues of *Numa* and *Servius Tullius*,
kings of Rome: but afterwards, they began to honour the fore-finger which is next unto the
thumbe, with a ring; according to the manner which wee ſee in the images of the gods: and in
proceſſe of time they tooke pleaſure to weare them upon the leaſt finger of all: and it is ſaid, that
in Fraunce and Britaine they uſed them upon the middle finger. But this finger now adaies is ex-
cepted onely and ſpared, whereas all the reſt be ſped and charged with them; yea and every joint K
by themſelves, muſt have ſome leſſer rings and gemmals to fit them. Some will have the little
finger loden with three rings; others content themſelves with one and no more upon it, where-
with they uſe to ſeale up the ſignet that is to ſigne ordinarily: for this ſigne manuell (I may tell
you) the manner was to lay up ſafe among other rare and pretious things: this might not come
abroad everie daie, as being a jewell that deſerved not to bee miſuſed by handling commonly,
but to be taken foorth out of the cabinet or ſecret cloſet, never but when need required: ſo that
whoſoever weareth one ring and no more upon the leaſt finger, hee giveth the world to under-
ſtand, that he hath a ſecret cabinet at home ſtored with ſome ſpeciall things more coſtly and
pretious than ordinarie. Now, as ſome there bee that take a pride and pleaſure to have heavie
rings upon their fingers, and to make a ſhew how maſſie and weightie they are, ſo others againe L
are ſo fine and delicat, as they thinke it a paine to weare more than one. Some hold it good, for
ſaving of the ſtone or collet (if the ring ſhould chance to fall) to have the round houpe or com-
paſſe thereof wrought hollow and enchaſed within, yea and the ſame filled up with ſome lighter
matter than is gold, that it may fall the ſofter. You ſhall have many that uſe to carrie poiſon hid-
den within the collet under the ſtone, like as *Demoſthenes* did, that renowmed prince of Greeke
oratours; ſo as their rings ſerve for no other uſe or purpoſe but to carrie their owne death about
them. Finally, the greateſt miſchiefs that are practiſed by our mightie men in theſe daies, are
for the moſt part performed by the means of rings & ſignets. Oh the innocence of the old world!
what a heavenly life led men in thoſe daies, when as there was no uſe at all of ſeale and ſignet?
But now wee are faine to ſeale up our ambries and hogſheads with our ſignets, for feare wee be M
robbed and beguiled of our meat and drinke. This is the good that commeth of our legions
and troups of ſlaves, which wee muſt have waiting and following at our heels: this commoditie
we have by our traine and retinue of ſtraungers that we keepe in our houſes: inſomuch as we are
Nomenclatores driven to have our controllers and *remembrancers, to tell us the names of our ſervants and

people

A people about us, they are ſo many. It was otherwiſe ywis by our auncеſtours and fore fathers daies, who had no more but one yeoman or groome apeece, and thoſe of the linage and name of their lords and maſters: as may appeare by the ordinarie names of * *Marci-pores* and *Lucipores*: and theſe had all their victuals and diet ordinarily at their maſters bourd. And therefore there was no great need to keepe ſafely any thing under locke and key from ſuch houſhold ſervitours: whereas now adaies the cater goeth to the market to provide cates and viands for to bee ſtollen and caried away as ſoone as they come home, and no remedie there is againſt it: for no ſeale will ſerve to make ſure either ſuch lurchers themſelves for filching, or keepe the very locks and keies ſafe and whole that lead to the proviſion. And why? an eaſie matter it is to plucke the rings from their lord and maiſters fingers that are oppreſſed with dead ſleepe, or when they lie a B dying. And verely wee hold in theſe daies a ſeale to bee the beſt aſſurance in contracts that may be: but I wot not how long it is ſince that cuſtome firſt came up. And yet if wee conſider the faſhions and manners of ſtraunge nations, we may peradventure find how theſe ſignets came into ſuch credit and authoritie: and namely by the hyſtorie of *Polycrates* the tyrant or king of the Iſle Samos: who having caſt into the ſea a ring which he loved and eſteemed above all other jewels, met with the ſame againe by meanes of a fiſh which was taken, in the bellie whereof the ſaid ring was found. Now this king was put to death, about the two hundred and thirtieth yeare after the foundation of our cittie. Howbeit, the ordinarie uſe of theſe ſignets (as I ſuppoſe by all reaſon and likelyhood) began together with uſurie: for proofe whereof, marke how ſtill at this day, upon any ſtipulation and bargaine paroll made, off goes the ring preſently to confirme and ſeale C the ſame. The which cuſtome no doubt came from old time, when there was no earneſt nor gods-penie more readie at hand than a ſignet. So as wee may conclude aſſuredly and affirme, That among us here at Rome, when the uſe of money and coine was taken up, ſoon after came the wearing of rings in place. But as touching the deviſe and invention of money, I will write anon more at large.

And now to returne againe unto my diſcourſe of rings: after they began once to be in any requeſt, there were none at Rome under the degree of a knight or gentleman that caried rings on their fingers; inſomuch, as a man might know a gentleman from a commoner by his ring, like as a Senatour was diſtinguiſhed from the Gentlemen, wearing rings, by his coat embrodered with broad gards and ſtuds of purple. Howbeit, long it was before this diſtinction was obſerved. For D I find that the publicke criers wore ordinarily ſuch coats likewiſe embrodered, as Senators do: as appeareth by the father of *L. Aelius Stilo*, ſurnamed upon that occaſion *Præconinus*, becauſe his father had beene a publicke crier. Certes, theſe rings ſignified the middle degree, inſerted betweene the Commons and the Nobles: and that name which in times paſt horſes of ſervice gave unto men of armes and *gentlemen of Rome; the ſame now adaies ſheweth men of worth, and thoſe who are of ſuch and ſuch revenues. But long it is not ſince this diſorder and confuſion begun. For when as *Auguſtus Cæſar* late Emperor of happie memorie, ordained decuries of judges in criminall matters, the greater part of them conſiſted of thoſe who wore no other rings but of yron: and thoſe were ſimply called Iudges, and not Knights or Men of arms: for this name continued ſtill appropriat unto the troupes of thoſe gentlemen, who ſerved upon horſes allowE ed by the Senate. Moreover, at the firſt there were no more but decuries of judges, and hardly might there be found in each of thoſe decuries, a bare thouſand: for as yet thoſe of our provinces might not bee admitted unto this eſtate to ſit and judge upon criminall cauſes: and even at this day preciſely obſerved it hath been, That none but auncient citizens might be judges: for never any that came newly to their free burgeoiſie, were taken into this order and degree.

* *i.* the pages or groomes of *Marcus* or *Lucius*.

*Who thereupon were called *Equites*.

Chap. II.

Of the Decuries or chamber of Iudges upon record at Rome. How often the name and title of the Romane Cavallerie chaunged. The gifts and rewards repreſented unto valiant ſouldiours for their brave ſervice. And at what time Coronets of gold were ſeene.

F

THe chamber of the foreſaid judges conſiſted of divers eſtates and degrees, diſtinguiſhed all by ſeverall names: for firſt and foremoſt, there were of them called Tribuni æris, as it were

Generall receivers or Treaſurers : ſecondly, Electi, choſen from among the Senatours : and G
laſt of all, thoſe who ſimply were named Iudices or Iudges, taken from among the Knights or men of arms. Over and beſides theſe, they had others called Nongenti, choice men ſelected from out of all the eſtates, who had the keeping of thoſe chiſts or caskets wherein were put the voices of the people in their ſolemne elections. And by reaſon of a prowd humour in men, chuſing themſelves names to their owne liking, great diviſions and factions aroſe in this houſe and chamber of the foreſaid Iudges; whiles one would needs bee called Nongentus, another Selectus, and a third gloried in the title of Tribune or Receiver. But at length, in the ninth yeere of the reigne of the Emperor *Tiberius Cæſar*, the whole eſtate of the gentrie or cavallerie of Rome, was reduced to an uniformitie; and an order was ſet downe whereby it was knowne, who might weare rings, and who might not? which fell out to bee in that yeere when *C. Aſinius Pollio*, and H
C. Antiſtius Vetus were Conſuls togither, and in the 775 yeere after the foundation of Rome citie. And verely this uniforme regularitie was occaſioned by a trifling cauſe to ſpeake of, and whereat we may well marveile: And thus ſtood the caſe: *C. Sulpitius Galba* deſirous in his youth to win ſome credit with the foreſaid Emperour *Tiberius*, and namely, by deviſing means how to bring taverns, cooks ſhops, and victualling houſes in daunger of the law, and to forfeit penalties; pleaded againſt them, and complained before the Senat, That thoſe who were the undertakers and tenants as it were of the ſaid taverns, &c. and made their gaine thereby, had no other means to beare themſelves out, nor plea to defend their faults and diſorders, but their rings. The Senat taking knowledge hereof, ordained an act, That none from that time forward might bee allowed to weare the ſaid rings, unleſſe he were free borne, and that both himſelfe, his father, and I
grandſire by the fathers ſide were aſſeſſed in the Cenſors booke woorth 400000 ſeſterces; and by vertue of the law Iulia as touching the publicke theatre, had right to ſit and behold the plaies in the firſt and foremoſt fourteen ranks or ſeats for knights appointed. Howbeit afterwards, everie man laboured and made means one with another, to be allowed for to weare this ornament of a ring. Now in regard of theſe diſorders and variances above rehearſed, prince *Caius Caligula* the Emperour, adjoyned to the former foure, a fifth Decurie. And ſhortly after, men grew to that heigth and pride in this behalfe of wearing rings, and the companie ſo ſurcreaſed, that whereas in *Auguſtus Cæſars* daies there could not be found knights and gentlemen ſufficient throughout all Rome to furniſh thoſe Decuries, by this time they could not bee contained all within the chamber of Iudges or Decuries aboveſaid: in ſo much as now adaies, no ſooner are there any K
ſlaves manumiſed and affranchiſed, but preſently (by their good will) they muſt be at their rings. A thing that never before was known in Rome: for aforetime when a man ſpake of the iron ring, he was underſtood preſently to point at the Gentlemen and Iudges before-named: But the ſaid ornament or badge became ſo commonly to be taken up by one as well as another, that a gentleman of Rome (*Flavius Proculus* by name) endited 400 at once before *Claudius Cæſar* Cenſor for the time being, & declared againſt them for this abuſe & offence. See what inconvenience enſued upon the act of Rings! for whiles thereby a diſtinction was made between that degree & other free-borne cittizens, ſtraightwaies baſe ſlaves leapt in, and were ſo bold as to take that ornament upon them. And here by the way it is to be noted, that the two *Gracchi*, *Tiberius* and *Caius*, brethren, upon a certain deſire and inbred affection that they had to maintaine and nuzzle the peo- L
ple in ſedition, and to beare a ſide alwaies againſt the Senate, for to currie favour with the Commons and to doe them a pleaſure, deviſed firſt to have all them called Iudges, who by vertue of the foreſaid ſtatute or edict, might weare rings: and this hee did to croſſe and beard the * Senat. But after the fire of this ſedition was quenched, and the popular authors thereof who ſtirred and blew the coles were murdered, the denomination of theſe criminall judges (after divers troubles and ſeditions with variable and alternative fortune) fell in the end to the Publicans and Farmers of the revenews of the State; and being thus devolved upon them, there continued: inſomuch as for a good while the ſaid Publicans made up the third degree between the Senatours and the Commons. Howbeit, *M. Cicero* when he was Conſull reeſtabliſhed the Knighthood & Cavallerie of Rome in their former eſtate and place; and ſo far prevailed, that hee reconciled them a- M
gaine unto the Senat: giving out openly, that hee himſelfe was come of that degree, and by that means by a certaine popularitie, ſought to draw them all to ſide with him. From this time forward, the men of arms were enſtalled as it were in the third eſtate of Rome; inſomuch as all edicts and publicke acts paſſed in the name of the Senat, People, and Cavallerie of the citie. And for that

*Who onely indeed were to judge cauſes.

A that theſe knights or gentlemen were laſt incorporated into the bodie of the Common-weale; this is the onely reaſon that even now alſo they are written in all publicke Inſtruments, after the People.

As touching the name or title, attributed to this third eſtate or degree of Horſemen or men of Arms, it hath been chaunged and altered often times: for in the daies of *Romulus* and other KK. of Rome, they were called Celeres, afterwards Flexumines, and in proceſſe of time Troſſuli, by occaſion that theſe horſmen without any aid at all of the Infanterie, had woon a towne in Tuſcane nine miles on this ſide Volſinij, called Troſſuli: which name continued in the Cavallerie of Rome, untill the time of *C. Gracchus* and afterward. And verely *Iunius* (who upon the great amitie betweene *Gracchus* and him, was ſurnamed *Gracchanus*) hath left theſe words in writing
B as touching this matter: Concerning the degree of Knights (quoth hee) thoſe who now are called Equites, [*i.* Horſemen] beforetime had to name Troſſuli: the chaunge of which name aroſe upon this; That many of theſe Gentlemen, ignorant in the originall and firſt occaſion of the foreſaid name Troſſuli, and what the meaning thereof was, were aſhamed ſo to be called. He alledgeth moreover the cauſe of the ſaid name: And yet notwithſtanding (quoth hee) they cannot away with the name at this day, but are ſo called againſt their wills.

To come againe unto our former diſcourſe of Gold. There be yet ſome other points beſides to bee conſidered therein, which cauſe diſtinction in divers conditions of men: for our auncеſtors, willing at all times to honour thoſe ſouldiors who had borne themſelves valiantly in wars,
C were woont to beſtow chains of gold upon ſtraungers and auxiliaries, ſuch I meane as came to aid and ſuccour the Romans: but unto their owne naturall cittizens they gave none other but of ſilver: and true it is, that Romane cittizens had bracelets given them over and above, which forreiners had not. They were woont alſo (a thing to bee marveiled at) to give unto cittizens, coronets of gold; but who hee was whome they honoured firſt with this reward, I could never find in any Chronicle: and yet *L. Piſo* hath ſet downe in his annals, the firſt giver thereof: For *A. Poſthumius* L. Dictatour (quoth hee) upon the winning of the fortified campe of the Latines neare the lake Regillus, was the firſt that beſtowed upon that ſouldiour, by whoſe valorous ſervice principally the ſaid hold was forced, a coronet of gold; which hee cauſed to be made of the pillage taken from the enemie. *L. Lentulus* in like manner, being Conſull, gave a crowne of gold unto *Sergius Cornelius Merenda*, at the winning of a certaine towne within the Samnites countrey.
D Semblably *Piſo* ſurnamed *Frugi*, beſtowed upon his owne ſonne a coronet of gold weighing five pound, which hee cauſed to be made of his owne privat money: and yet among other legacies in his laſt will and teſtament, the ſaid coronet hee bequeathed to the ſtate and commonwealth of Rome.

Chap. iii.

Other uſes beſides of Gold, as well in men as women. Of Gold, in money. When Braſſe, Silver, and Gold, were firſt ſtamped and coined. Before Braſſe was converted into ſtamped money, how they uſed it in old time. At what rate and proportion of money were aſſeſſed the beſt houſes of Rome, at the
E *firſt levying of Subſidies. And at what time Gold came into credit and requeſt.*

ALl the gold emploied in ſacrifices to the honour of gods, was in guilding the hornes of ſuch beaſts as were to be killed, and thoſe onely of the greater ſort. But in warfare among ſouldiours, the uſe of gold grew ſo exceſſive, that the field and campe ſhone againe withall: inſomuch as at the voyage of Macedonie, where the marſhals of the field and colonels bare armour ſet out with rich buckles and claſps of gold, *M. Brutus* was offended and ſtormed mightily at it, as appeareth by his letters found in the plaines about Philippi. Well done of thee, ô *M. Brutus*, to find fault with ſuch waſtfull ſuperfluitie: but why ſaideſt thou nothing of the gold
F that the Romane dames in thy time wore in their ſhoes? And verely this enormitie and abuſe, I muſt needs impute unto him (whoſoever he was) that firſt deviſed rings, and by that means cauſed gold to bee eſteemed a mettall of much woorth: which evill precedent brought in another miſchiefe as bad as it, which hath continued a long time; namely, that men alſo ſhould weare about their armes, bracelets of gold next to their bare skin: which deviſe and ornament of the arme

is called Dardanium, becauſe the invention came from the Dardanians: like as the fine golden carkanets Viriæ, we tearme Celticæ; and the neck-laces of gold Viriolæ, Celtibericæ. Oh the monſtrous diſorders that are crept into the world! But ſay that women may be allowed to weare as much gold as they will, in bracelets, in rings on everie finger and joynt, in carkanets about their necks, in earings pendant at their ears, in ſtaies, wreaths, & chinbands; let them have their chains of gold as large as they liſt under their arms or croſſe over their ſides, ſcarfe-wiſe; be gentlewomen and miſtreſſes at their collars of gold, beſet thicke and garniſhed with maſſie pearls pendant from their necke, beneath their waſt; that in their beds alſo when they ſhould ſleep they may remember what a weight of pearls they carried about them: muſt they therefore weare gold upon their feet, as it were to eſtabliſh a third eſtate of women anſwerable to the order of knights, between the matrons or dames of honour in their ſide robes, and the wives of meane commoners? Yet me thinks, we men have more reaſon and regard of decencie, thus to adorn with brooches and tablets of gold, our youths and young boyes, and a fairer ſight it is to ſee great men attended upon to the bains by beautifull pages thus richly decked and ſet out, that all mens eyes may turne to behold them. But what mean I thus bitterly to inveigh againſt poore women; are not men alſo growne to ſuch outrageous exceſſe in this kind, that they begin to weare upon their fingers either * Harpocrates, or other images of the Ægyptian gods engraven upon ſome fine ſtone? But in the daies of the Emperour *Claudius* there was another difference and reſpect had, That none might carrie the pourtraiture of that prince engraven in his ſignet of gold, without expreſſe licence given them by thoſe gratious enfranchiſed ſlaves who were in place to admit unto their lord the Emperour, whome it pleaſed them: which was the occaſion and means of bringing many a man into daunger, by criminall imputations. But all theſe enormities were happily cut off ſo ſoone as the Emperour *Veſpaſian* (to the comfort and joy of us all) came once to the crowne: for by an expreſſe edict, he ordained, That it might be lawfull for any perſon whatſoever to have the image of the Emperour in ring, brooch, or otherwiſe without reſpect. Thus much may ſuffice concerning rings of gold, and their uſage.

* Called alſo *Sigalion.*

To come now to the next miſchiefe that is crept into the world; I hold that it proceedeth from him who firſt cauſed a * denier of gold to be ſtamped: although, to ſay a truth, I know not certainly who hee was that deviſed this coine. As for the people of Rome, ſure I am that before king *Pyrrhus* of Epirus was by them vanquiſhed, they had not ſo much as ſilver money ſtamped and currant. Well I wot alſo, that in old time the maner was to weigh out braſſe by the As, which was a pound weight, and thereupon called As Libralis; and yet at this day, Libella: like as the weight in braſſe of two pound, they named Dipondius [As.] And hereupon came the cuſtome of adjudging any fine or penaltie under the tearme of [Æris gravis] that is to ſay, of braſſe Bullion or in Maſſe. From hence it is alſo, that ſtill in reckonings and accounts whatſoever hath ben laid out or delivered, goeth under the name of Expenſa, [*id eſt*, Expences] as a man would ſay, weighed forth, becauſe in times paſt all paiments paſſed by weight. The Latines likewiſe uſe the nowne Impendia, for coſt beſtowed, or the charges of intereſt in uſurie above the principall; even as the verbe Dependere, betokeneth (to pay) becauſe paiments ordinarily were performed by poiſe. Moreover, the under-treaſurers of warre, or paymaſters in the campe, were in auncient time named Libripendes, for weighing out unto the ſouldiours their wages; and their verie pay thereupon was called Stipendiam, from whence commeth Stipend, a word commonly received. According to which manner and cuſtome, all buyings and ſellings at this day which paſſe with warrantiſe, are uſually perfourmed by interpoſition of the ballance, which ſerveth to teſtifie the realitie of the contract and bargaine on both parts.

* He ſpeaketh κατὰ χρῆσιν, as I take it; for *Denarius* was a ſilver peece: but hee meaneth any peece of coine.

Touching braſſe money, *Servius Tullius* a king of Rome, cauſed it firſt to bee coyned with a ſtampe: for before his daies, they uſed it at Rome rude in the maſſe or lumpe, as *Remeus* mine author doth teſtifie. And what was the marke imprinted thereupon? even a sheepe, which in Latine they call Pecus: and from thence proceedeth the word Pecunia, that ſignifieth money. And note here by the way, that during the reigne of that king, the beſt man in all Rome was valewed to be worth in goods not above 110000 Aſſes in braſſe: and at this rate were aſſeſſed the principall houſes of the citie in the kings books; and this was counted the firſt Claſſis.

Afterwards, in the 485 yeare from the foundation of the citie, when *Q. Ogulnius* and *C. Fabius* were Conſuls, five yeares before the firſt Punicke warre, they began to ſtampe ſilver money at Rome, and three ſeverall peeces were coined. At what time ordained it was, That the Denarius

or

A or Denier ſhould go for tenne Aſſes or pounds of braſſe money; the halfe Denier, Quinarius, ſhould be currant for five; and the Seſterce reckoned worth two and a halfe. Now, for as much as during the firſt Punick warre againſt the Carthaginians, the citie was growne much behind hand and farre endebted, ſo as they were not able to goe through the charges which they were to defray, agreed it was and ordained to raiſe the worth of the braſen monie by deminiſhing the poiſe: whereas therfore the Aſſe weighed a pound of twelve ounces, they made the Aſſe of two ounces: By which deviſe, the Commonwealth gained five parts in ſix; and the Fiſque or citie chamber by that meanes was ſoone acquit of all debts. But if you would know what was the matke of this new braſen Aſſe: of the one ſide it was ſtamped with a two-faced *Ianus*, on the other ſide with the beake-head of a ſhip, armed with braſen pikes. Other ſmaller peeces there were, according to
B that proportion, to wit, Trientes, the third part of an Aſſe; and Quadrantes the fourth; which had the print of *punts or ſmall boats upon them. As for the peece Quadrans, it was before time called Triuncis, becauſe it weighed three ounces. Howbeit, in proceſſe of time, when *Annibal* preſſed hard upon the citie, and put them to an exigent for money to maintaine the warres againſt him, driven they were to their ſhifts and forced (when *Q. Fabius* was Dictator) to bring down the foreſaid Aſſe of two ounces unto one. Yea, and enacted it was, That the ſilver Denier, which went beforetime for tenne Aſſes, ſhould be worth *ſixteen; the halfe Denier or Quinare, eight; and the Seſterce foure: and by this means the State gained the one halfe full. And yet I muſt except the money paied unto ſouldiors for their wages: for a Denier unto them was never reckoned above tenne Aſſes. As for the ſilver Deniers, ſtamped they were with the pourtraiture of coches drawne
C with two horſes or foure horſes, whereupon they were called Bigati and Quadrigati. Within a while after there paſſed an act promulged by *Papyrius*, by vertue whereof the Aſſes weighed not above halfe an ounce. Then came *Livius Druſus* in place, who beeing one of the Provoſts or Tribunes of the Commons, brought in baſe money, and delaied the ſilver with one eight part of braſſe. Touching that peece of coine, which now is called Victoriatus, ſtamped it was by an Act propoſed by *Clodius*; for before his time, thoſe peeces of money were brought out of Sclavonia, and reckoned as merchandiſe: and ſtamped it is with the image of Victorie, of which it tooke that name.

Concerning gold coined into money, it came up threeſcore and two years after the ſtamping of ſilver peeces: and a ſcriptule of gold was taxed and valued at twentie ſeſterces, which ariſeth in
D every pound according to the worth of Seſterces as they were rated in thoſe daies, to nine hundred Seſterces. But afterwards it was thought good to caſt and ſtampe peeces of gold, after the proportion of fiftie to a pound: And thoſe, the Emperors by little and little deminiſhed ſtill in poiſe, untill at length *Nero* brought them downe to the loweſt, and cauſed them to be coined after the rate of five and fiftie peeces to the pound. In ſumme, the very ſource and originall of all avarice proceedeth from this money and coine, deviſed firſt by lone and uſurie, and continued ſtill by ſuch idle perſons that put foorth their monies to worke for them, whiles they ſit ſtill, and find the ſweetneſſe of the gaine comming in ſo eaſily. But this greedie deſire of having more ſtill, is growne after an outrageous manner to be exceſſive, and no more to be named covetouſneſſe, but rather unſatiable hunger after gold: inſomuch as *Septimuleius*, an inward and familiar friend
E of *C. Gracchus*, forgat all bonds of amitie, and having cut off his friends head, upon promiſe to have the weight of it in gold, brought the ſame unto *Opimius*: howbeit, hee poured molten lead into the mouth thereof to make it more heavie, and ſo together with this parricide and unnaturall murther, couſened alſo and beguiled the Commonweale. But to ſpeake no more of any particular citizen of Rome, the whole name of the Romanes hath beene infamous among forraine nations for avarice and corruption in this kind: as may appeare by the conceit that king *Mithridates* had of them, who cauſed *Aquilius* (a Generall of theirs, whoſe hap was to fall into his hands) for to drinke molten gold. See what covetouſneſſe brings home with it in the end.

Now when I behold and conſider no more but theſe ſtraunge names of our veſſell in plate, which are newly deviſed in Greeke from time to time, according as the ſilver is either double or
F parcell guilt, or the gold encloſed and bound within worke, I am aſhamed of it; and the rather, for that in regard of theſe deviſed names and daintie toies, ſuch plate as well of beaten gold, as guilded onely, ſhould be ſo vendible and ſell ſo deare: eſpecially knowing as we doe full well, the good order that *Spartacus* held in his campe, expreſſely commanding that no man ſhould have any plate of gold or ſilver. A great reproch to us Romans, that our fugitives & baniſhed perſons

ſhould

*And therfore they were called *Ratiti* of *Rates*.

*Ordinarily the Romane ſilver Denier had the letter *X.* ſtamped upon it, but theſe Deniers had *X V I. Vrſin.*

ſhould ſhew a more nobler ſpirit than wee our ſelves. *Meſſala* the great Oratour hath left in writing, That *M. Antonius* uſed to diſcharge all the ordure and filthie excrements of the bodie into veſſels of gold, yea, and allowed *Cleopatra* likewiſe to doe the ſame by her monthly ſuperfluities, moſt ſhamefully. Noted it was among forrain nations for exceſſive licentiouſneſſe, & that in the higheſt degree, That king *Philip* of Macedonie was never wont to go to bed and ſleepe without a ſtanding cup of gold under his pillow: alſo, That *Agnon Teius* (a great captaine under *Alexander* the Great) was given to ſuch waſtfull prodigalitie, as to faſten his ſhoes and pantophles with buckles of gold. But *Antonie* abovenamed, to the contumelie and contempt of *Nature, abuſed gold, and emploied it to the baſeſt ſervice that is: An act (as much as any other) deſerving proſcription and outlawing indeed. G

*Which had given us gold for veſſels of honour.

But among diverſe things beſides, I wonder much at this, That the people of Rome, upon the conqueſt of ſo many nations, impoſed upon them a tribute to be paied alwaies in ſilver, & never made mention of gold: as for example, when Carthage was ſubdued, and *Annibal* vanquiſhed, the Carthaginians were enjoined for fiftie years together to make paiment yearly of *[12000] pound of ſilver onely, and no gold at all. Neither can it be thought that there was little gold at that time to be had abroad in the world; for *Midas* and *Cræſus* both, were poſſeſſed of infinit ſums and huge maſſes of gold: and *Cyrus* upon his conqueſt of Aſia, met with 34000 pound weight of gold, beſides the golden plate and veſſell, and other gold which he found readie wrought: and among the reſt, certaine *leaves, a Plane and a Vinetree, both of beaten gold. In the pillage alſo of this victorie, he caried away five hundred thouſand talents of ſilver, and one ſtanding cup that he tooke from *Semiramis*, that weighed fifteene talents. And *Varro* mine Author ſaith, That the poiſe of the Ægyptian talent ariſeth to *80 pound. Beſides, there had raigned beforetime over the Colchians, *Salauces* and one *Eſubopes*: who having newly broken up a peece of ground in the Samnians country, is reported to have gotten out thereof great ſtore of ſilver and gold, notwithſtanding that the whole kingdome is renowmed for the golden fleeces there. And verely this prince had the arched and embowed rouſes of his pallace made of ſilver and gold: the beames and pillars alſo ſuſtaining the ſaid building, yea, the jambes, poſts, principals, and ſtanderds, all of the ſame mettall, namely, after he had vanquiſhed *Seſoſtres* king of Ægipt, ſo prowd a prince, that (as the Chronicles make mention) hee was wont every yeare to have one or other (as the lot fell out) of thoſe kings who were his tributaries and did homage unto him, for to draw in his charriot like horſes, when he was diſpoſed to ride in triumph. Theſe and ſuch like things have bin thought fabulous tales: but have not our Romanes done ſemblable acts, which the age and poſteritie hereafter will thinke incredible? *Cæſar* afterwards Dictatour, was the firſt that in his Ædileſhip, when hee exhibited a ſolemne memoriall in the honour of his father departed, did furniſh the whole Cirque and ſhew-place, with all things meet for ſuch a ſolemnitie, of cleane ſilver; inſomuch as the chaſing ſtaves and boreſpeares were of ſilver, wherewith the wild beaſts were aſſaulted: a ſpectacle never ſeene before. And not long after, *C. Antonius* ſet forth his plaies (when he was Ædile) upon a ſtage or ſcaffold of ſilver: after whoſe example, diverſe free cities and towns of the Empire have done the like. Semblably, *L. Muræna* and *C. Caligula* the Emperour, erected a frame or pageant to goe and riſe up of it ſelfe with vices, ſupporting images and jewels in the place of publick paſtimes, which was thought to have in it 124000 pound of ſilver. *Claudius Cæſar* who ſucceeded Emperour after him, when he rode in triumph for the conqueſt of Brittaine, among other crownes of beaten gold, ſhewed twain that were principall, the one of ſeven pound weight, which high Spaine had given unto him; the other weighing nine pounds, ſent unto him as a preſent from that part of Gaule which is called Comata: as appeared by the inſcriptions and titles which they bare. *Nero* his ſucceſſor, to ſhew unto *Tyridates* king of Armenia what abundance of treaſure he had, kept the great Treatre of *Pompeius* for one whole day covered all over with gold. But what was that furniture in compariſon of his golden houſe, which tooke up a great part of the citie, and ſeemed (as it were) to compaſſe it about. In that yeare when *Sex. Iulius* and *Lucius Aurelius* were Conſuls (which fell out to be ſeven years before the third Punick war) there was found in the treaſurie or chamber of Rome, *700026 pound weight of gold, in Maſſe or Ingots; of ſilver likewiſe in Bullion, 92000 pound weight; beſides the coine and readie money, which amounted to 375000 Seſterces. The yeare wherein *Sex. Iulius* and *L. Marcius* were Conſuls, to wit, in the beginning of the ſociall warre againſt the Marcians and other Romane allies, the treaſure of Rome aroſe to 846 pounds of gold in Bullion. *C. Cæſar* at his firſt entrance into H I K L M

*For in al they were to pay 10000 talents: reckō a talent at 60 pound, which is the leſſe Atticke.

*Folia, I thinke rather *ſolia*, i. bathing veſſels.

*Some ſay 75.

*According to *Budæus*.

the

A the citie of Rome, when the civile warre betweene him and *Pompey* was begun, tooke out of the citie chamber 15000 wedges or ingots of gold, 35000 lumpes or maſſes of ſilver, and in readie money 40000 Seſterces. And to ſay a truth, never was the citie of Rome wealthier than at this time. Moreover, *Æmylius Paulus*, after he had defeated and vanquiſhed *Perſeus* the Macedonian king, brought into the treaſurie of the citie a bootie of 3000 pound of gold in weight. After which time the common people of Rome had never any tributes or taxes levied of them by the State.

* According to *Budæus*.

Moreover, this is to be obſerved, That after the overthrow and deſtruction of Carthage, the beames began firſt to bee guilded within the temple of the Capitoll, whiles *Lu. Mummius* was Cenſor. And now adaies you ſhall not ſee any good houſe of a privat man, but it is laid thick and
B covered over with gold. Nay, the braverie of men hath not ſtaied ſo, but they have proceeded to the arched and embowed roufs, to the wals likewiſe of their houſes, which we may ſee every where as well and throughly guilded as the ſilver plate upon their cupbourds. And yet *Catulus* was diverſly thought of in the age wherein he lived, becauſe he was the firſt that guilded the braſen tiles of the Capitoll.

Touching the firſt inventors, as well of gold, as alſo of all other mettals to ſpeake of, I have alreadie written in my ſeventh booke. As for the eſtimation of this mettall, that it ſhould bee cheefe as it is, I ſuppoſe it proceedeth not from the colour, for ſilver hath a brighter luſtre, more like to the day, and in this reſpect more agreeable to the enſignes of warre than that of gold, becauſe it glittereth and ſhineth farther off: And hereby is their errour manifeſtly convinced, who
C commend the colour of gold, in this regard, that it reſembleth the ſtarres: for well it is knowne that their colour is not reputed richeſt, either in precious ſtones or in many things beſides. Neither is gold preferred before other mettals, becauſe the matter is more weightie or pliable than the reſt; for lead ſurmounteth it, both in the one and the other. But I hold, that the reputation which it hath, commeth from hence, That it alone of all things in the world, looſeth nothing in the fire: for ſay that a houſe be burnt wherein gold is, yet it waſteth not: and looke what gold is committed to the funerall flames, it conſumeth not with the dead bodie, but is found all againe among the aſhes. Nay, the oftener that it hath been in the fire, the better it is and the more refined: in ſuch ſort, that the beſt gold which they call Obryzum, is knowne by this, if it bee of the ſame deepe red colour that the fire is wherein it is tried. And a principall argument this is of fine
D gold, if it hardly be kindled and ſet on fire red hote. Moreover, this is wonderfull in the nature of *gold, that in a fire made of light ſtraw or chaffe, it will moſt quickly become red hot and melt; put the ſame among the whoteſt burning coales that can bee of wood, unneath or hardly will it yeeld to the heat thereof and reſolve: as alſo for the purifying thereof, it ought to be melted with lead. A greater reaſon there is beſides that maketh gold ſo precious: for that with uſe or handling there is little of it loſt and waſted; whereas ſilver, braſſe, and lead, if you draw any lines therewith, colour as they go and leave ſomewhat behind: they ſoile their hands alſo who occupie the ſame with the ſubſtance and matter that ſheddeth from them. Over and beſides, there is not a mettall will bee driven out broader with the hammer, or devide eaſily into more parcels than gold, inſomuch as every ounce of it may be reduced into ſeven hundred & fiftie leaves, or more,
E and each one of them foure fingers large every way. The thickeſt gold foile beareth the name at this day of Prænestium, for that the image of Fortune at Prænesте is above all other moſt richly guilded. The next thereto in goodneſſe is the foile or leafe of gold named Quæſtoria. In Spaine they uſe to call by the name of Strigiles, the ſmall peeces of that fine gold which is found naturally alone above all the reſt either compact in ſome maſſe, or in manner of ſand and gravell; whereas all other parcels of gold taken out of the mines, need to bee fined and brought to their perfection by the meanes of fire. But this gold that I ſpeak of, is gold preſently at the firſt, and no ſooner is found, but the matter thereof by and by is conſummat and accompliſhed. Lo how gold is found in the owne nature pure and perfect! As for the other manner of finding and fining gold, whereof I meane to ſpeake anone, it is forced (as it were) and upon conſtraint. But above all
F other properties to commend the goodneſſe of gold, this eſpecially is to be obſerved, That there is no ruſt nor canker, no nor any filth beſides breeding of it ſelfe therein, which is able either to corrupt the goodneſſe, or deminiſh the weight and ſubſtance thereof. What ſhould I ſay how firme it continueth and durable againſt ſalt and vinegre, ſcorning all their injuries: & yet otherwiſe their moiſture is able to eat into any other mettals, yea, and to conſume and tame all things

* This haply may be true in ore, for otherwiſe in fined gold it is not ſo: & the finer that it is, the ſtronger fire it asketh to be melted by.

els

els whatsoever. But this passeth all, that spun it may be as wooll and silke, woven also in manner of yearne, chuse whether you will work it twisted with [silke] thred, or single in wier by it selfe. *Verrius* the Hystoriographer reporteth, That king *Tarquinius*, surnamed *Priscus*, rode in triumph in a robe of wrought gold. I my selfe have seene the Empresse *Agrippina*, wife to *Claudius Cæsar*, sitting by her husband the Emperour to behold the brave shew of a navall skirmish upon the water which he exhibited, all gorgeously arraied in a royall mantle, woven without any other matter save onely pure gold. Cloth of gold and tissue I know there is besides, called Vestis Attalica, wherein gold is wrought with other stuffe: and long since it is, that this invention hath been devised by the rich and sumptuous kings of Asia. Furthermore, to guild marble or any other thing that will not abide to be guilded by the fire, gold foile must bee laid on with the white of an egge. As for wood and timber, they use to guild it by the meanes of a certaine compound glue or size, which is commonly called *Leucophoron: but what a glue this is, and how it is made, I will declare in place convenient. As touching the manner how to guild brasse, it was performed ordinarily heretofore by quicksilver naturall, or else artificiall named Hydrargyron: and herein there hath been devised much fraud & deceit; according as I will hereafter shew in their proper chapters, when I practise to set downe their nature and properties. But now after that brasse hath been much knocked and beaten, they use to put it into the fire: and so soone as it is perceived red hote, they quench it againe in salt, vinegre, and allum. Now afterward, when it is well scoured & cleansed with sand, and knowne by the brightnesse and lustre thereof that it hath beene sufficiently frobished and purified, againe it must into the fire to take a new heat by the ardent exhalation thereof; that being thus (as it were) mortified and besmeared with a size of the pumish stone, allum and quicksilver mixed together, it may take gold foile laid upon it the better, and keepe it more surely. To conclude, allum hath the verie same vertue to trie and cleanse gold, as I said before lead had.

G H I

*or *Chrysoporon*

Chap. iiii.

The manner of finding gold naturally in the Mine. When were knowne the first statues of gold. The medicinable vertues and properties of gold.

IN these parts of the world wherein we live, gold mines are found: so that wee need not to stand so much upon the gold of India, nor that which the ants cast up out of the ground, or the griffons gather in Scythia. And verely the gold here with us commeth naturally in three sorts, to wit, among the sands of some great rivers, like as Tagus in Spaine, the Po in Italie, Hebrus in Thrace, Pactolus in Asia, and the Indian Ganges do yeeld it: neither is there any gold more fine and perfect, as beeing throughly polished by that rubbing and attrition which it meeteth withall in the course and streame of the water. Another manner there is to come by gold, namely, by digging it out of pits which are sunke of purpose for it: or else to light upon it within the caves and breaches happening by the fall of mountains undermined or cut through. And my meaning is to discourse of the one way as well as the other, of searching for gold.

K

To begin then with those who seeke for this mettall: First above all they hit upon a veine of earth called Segullium, and this is it that giveth them the first light and shew that gold is there to bee had. This they take up: the bed and couch wherein it lieth: the gravell likewise and the sand about it they wash, observing diligently that which setleth in the bottome, for by it they have a good guesse and aime that directeth them to gold, whether it lie deepe or shallow. And by this conjecture, otherwhiles their hap is so good, as to find that which they desire, aloft, even ebbe under the upmost coat of the earth: but I must needs say, a rare felicitie is this. And yet of late daies during the Empire of *Nero*, there was found in Dalmatia a vaine of gold ore within one spades griffe in the first turfe of the ground, which yeelded every day the weight of fiftie pound. This manner of earth, if it be found also under a vaine of gold, they call Alutatio. Moreover, this is to bee noted, That ordinarily the drie and barraine mountaines in Spaine which beare and bring foorth nothing else, are forced (as it were) by Nature to furnish the world with this treasure, and doe yeeld mines of gold. As for that gold ore which is digged forth of pits, some call it in Latin Canalitium, others Canalense. And verely this is found sticking to the grit and utmost crust of hard rockes of marble; not after the manner of drops or sparkes glittering in orient saphire, or

L M

the

A the Thebaicke marble, and in many other precious ſtones, which are marked here and there with ſpeckes of gold: but this ore or mettall dooth claſpe and embrace whole peeces of marble and ſuch like, found in rockes. And commonly theſe canales, (as I may ſo ſay of gold ore) follow the vaines of ſuch marble and ſtone in the quarrey, deviding and ſpreading as they do here & there; whereupon the gold tooke the foreſaid name of Canalitium: they wander alſo along the ſides of the pits as they are digged, ſo that the earth had need to bee borne up and ſupported with poſts and pillers for the getting of it, leaſt by hollow undermining, it fall upon the pioners. This mine or vaine of gold ore when it is once digged up and landed above ground, the manner is to bray and ſtampe, to waſh, burne, and melt, yea, and otherwhiles to grind into pouder. As for that which (as they pun thus and beat in morters) is knocked from it, they call * Apilaſcus: but the

B mettall which ſweateth out and commeth forth by the violent heat of the furnace where the foreſaid ore is melted, they name Argentum, *i.* ſilver. The groſſe ſubſtance caſt up from the pot or veſſell, & ſwimming aloft (whether it be the droſſe comming of gold thus tried, or any other mettall) is named Scoria. Howbeit, this droſſe that gold dooth yeeld from it in the trying, is ſet over the fire againe to take a new melting, and is ſtamped in manner aforeſaid. As for the pans or veſſels wherein gold is thus tried and refined, they be made of a certaine earth named Taſconium: and the ſame is white like unto a kind of potters cley. For ſurely there is no other earth or matter whatſoever will abide either the heat of the fire underneath, plied continually with the bellowes, or the matter within it when it is melted. And thus much of the two firſt waies of finding out gold.

C 3 The third manner of ſearching for this mettall, is ſo painefull and toileſome, that it ſurpaſſeth the wonderfull workes of the * Geants in old time: For neceſſarie it is in this enterpriſe and buſineſſe, to undermine a great way by candlelight, and to make hollow vaults under the mountains. In which labour the pioners worke by turnes ſucceſſively, after the manner of the releeſe in a ſet watch, keeping every man his houres in juſt meaſure: and in many a month ſpace they never ſee the Sunne or day light. This kind of worke and mines thus made, they call Arrugiæ, wherein it falleth out many times, that the earth above head chinketh, and all at once without giving anie warning, ſetleth and falleth, ſo as the poor pioners are overwhelmed and buried quick: inſomuch as conſidering theſe perils, it ſeemeth, that thoſe who dive under the water into the bottome of the levant ſeas for to get pearles, hazard themſelves nothing ſo much as theſe pioners. A ſtrange

D thing, that by our raſhneſſe and follie we ſhould make the earth ſo much more hurtfull unto us than the water. Well then, to prevent as much as poſſibly may be, theſe miſcheefes and daungerous accidents, they underprop the hils, and leave pillars and arches (as they goe) ſet thicke one by another to ſupport the ſame. And yet, ſay they worke ſafe ynough and bee not in jeopardie of their lives by the fall of the earth, yet there bee other difficulties that impeach their worke: for otherwhiles they meet with rocks of flint and rags, as well in undermining forward, as in ſinking pits downe right; which they are driven to pierce and cleave through with fire and vinegre. But for that the vapour and ſmoke that ariſeth from thence, by the means, may ſtifle and choke them within thoſe narrow pits and mines, they are forced to give over ſuch fire-worke, & betake themſelves oftentimes to great mattockes and pickaxes; yea, and to other engines of yron, weigh-

E ing 150 pound apeece, wherewith theey hew ſuch rockes in peeces, and ſo ſinke deeper or make way before them. The earth and ſtones, which with ſo much adoe they have thus looſed, they are faine to carie from under their feet in ſcuttles and baskets, upon their ſhoulders, which paſſe from hand to hand evermore to the next fellow. Thus they moile in the darke both day and night in theſe infernall dungeons, and none of them ſee the light of the day, but thoſe that are laſt & next unto the pits mouth or entrie of the cave. If the flint or rocke that they worke into, ſeeme to run in a long graine, it well cleave in length, and come away by the ſides in broad flakes; and therefore the pioners with eaſe make way, trenching and cutting round about it. Howbeit, be the rocke as ragged as it will, they count not that their hardeſt worke: For there is a certaine earth reſembling a kind of tough cley (which they call White Lome) and the ſame entermingled with grittie ſand,

F ſo hard baked together, that there is no dealing with it; it ſo ſcorneth and checketh all their ordinarie tooles and labour about it, that it ſeemeth impenetrable. What doe the poore labourers then? They ſet upon it luſtily with yron wedges, they lay on lode unceſſantly with mightie beetils: and verely, they thinke that there is nothing in the world harder than this labour, unleſſe it be this unſatiable hunger after gold, which ſurpaſſeth all the harneſſed & difficultie that is. Well,

when

* *Quaſi ad pilas cuſum.*

* Who were ſaid to reare one mountain upon the head of another.

when the worke is brought to an end within the ground, and that they have undermined & hollowed the hils as farre as they thinke good, downe they goe with their arch-worke abovesaid, which they builded as they went: They begin first at those props which are farthest off, cutting the heads of the stancheons still as they returne backward to the entrance of the worke. Which done, the sentinell onely, who of purpose keepeth good watch without upon the top of the same mountaine that is thus undermined, perceives the earth when it beginneth to sinke and cleave, menacing by that token a ruine thereof anone. Whereupon presently hee giveth a signe either by a loud crie or some great knocke, that the pioners underneath may have warning thereby to get them speedily out of the mines, and runneth himselfe apace downe from the hill as fast as his legs will give him leave. Then all at once on a suddaine the mountaine cleaveth in sunder, & making a long chinke, falleth downe with such a noise and cracke, as is beyond the conceit of mans understanding, with so mightie a puffe and blast of wind besides, as it is incredible. Wherat these miners and pioners are nothing troubled, but as if they had done some doughtie deed, and atcheeved a noble victorie, they stand with joy to behold the ruine of Natures workes, which they have thus forced. And when they have all done, yet are they not sure of gold: neither knew they all the whiles that they laboured & undermined, that there was any at all within the hill: The hope (only) that they conceived of the thing which so greatly they desired, was a sufficient motive to induce them to enterprise, and endure so great dangers, yea and to goe through withall and see an end. And yet I cannot well say that here is all: for there is another labour behind as painefull every way as the other, and withall of greater cost and charges than the rest, namely, to wash the breach of this mountaine (that is thus cloven, rent, and laid open) with a currant: For which purpose they are driven many times to seeke for water a hundred myles off, from the crests of some other hils, and to bring the same in a continued channell and streame all the way along unto it. These riverets or furrows thus devised and conveighed, the Latins expresse by the name of *Corrugi: a word as I take it derived *à Corrivando, i.* of drawing many springs and rils together into one head and channell. And herein consisteth a new peece of worke as labourious as any that belongeth to mines. For the levell of the ground must bee so taken aforehand, that the water may have the due descent and currant when it is to run: and therefore it ought to bee drawne from the sources springing out of the highest mountaines: in which conveiance, regard would bee had as well of the vallies as the rising of the ground betweene, which requireth otherwhiles that the water bee commanded by canels and pipes to ascend, that the cariage thereof bee not interrupted, but one peece of the worke answere to another. Otherwhiles it falleth out, that they meet with hard rockes and crags by the way, which doe impeach the course of the water: and those are hewed through, and forced by strength of mans hand to make roume for the hollow troughes of wood to lie in, that carrie the foresaid water. But a straunge sight it is to see the fellow that hath the cutting of these rockes, how he hangeth by cables and ropes betweene heaven and earth: a man that beheld him a farre off, would say it were some flying spirit or winged devill of the air. These that thus hang, for the most part take the levell forward, and set out by lines the way by which they would have the water to passe: for no treading out is there of the ground, nor so much as a place for a mans footing to rest upon. Thus you see what ado there is. And these good fellowes whiles they be aloft, *search with their hands and plucke forth the earth before them, to see whether it be firme and fast, able to beare the trunks or troughs for the water; or otherwise loose and brittle, which defect of the earth they call *Vrium: for the avoiding whereof the fountainers feare neither rockes nor stones to make passage for their pipes or trunkes aforesaid. Now, when they have brought the water thus to the edge & brow of the hils where these mines of gold should be, and from whence as from an head there is to be a fall thereof to serve their purpose; they dig certaine square pooles to receive the water, two hundred foot every way, and the same tenne foot deepe: in which they leave five severall sluces or passages for the deliverie of the water into the mines, and those commonly three foot square. When the said pooles stand full, as high as their bankes, they draw up the floud-gates: And no sooner are the stopples driven and shaken out, but the water gusheth foorth amaine with such a force, and carieth so violent a streame therewith, that it rolleth downe with it any stones be they never so big, lying in the way. And yet are we not come to an end of the toile, for there remaineth a new peece of worke to doe in the plain beneath. Certaine hollow ditches are to be digged for to receive the fall of the water both from the pooles above, and the mines also. These trenches the Greekes tearme Agogæ, as a man would say

Conduits,

*For rather *Corrivi.*

**Manus trahuntur ad omen.*

* or rather *Aræum, Græc.* ἀραῖον.

A Conduits, and thoſe are to bee paved by degrees one under another. Beſides, there is a kind of ſhrub or buſh, named Vlex, like unto Roſemarie, but that it is more rough and prickly, and the ſame is there planted becauſe it is apt to catch and hold whatſoever peeces of gold doe paſſe beſide. The ſides moreover of theſe canals or trenches, are kept in with planks and bourds, and the ſame borne upon arches pendant through ſteepe places, that by this means the canale may have paſſage and void away at length out of the land into the ſea.

Loe what a worke it is to ſearch out and meet with gold! And verely by this meanes Spaine is growne mightily in wealth, and full of treaſure. In the former worke alſo of ſinking pits for gold, an infinit deale of labour there is to lade out the water that riſeth upon the workemen, for feare it choke up the pits; for to prevent which inconvenience, they derive it by other draines. As tou-
B ching the gold gotten by cleaving and opening mountains, (which kind of worke I called Arrugia) it needeth no trying by the bloume-ſmithie, for fine it is naturally & pure of it ſelfe: & found there be whole lumps and maſſes of this kind, and in this manner. In pits likewiſe yee ſhall have ſuch peeces, weying otherwhiles ten pounds and more. Theſe groſſe and maſſie peeces of gold, the Spaniards call Palacræ or Palacranæ: but if they bee but ſmall, they have a pretie name for them, and that is Baluces. But to come againe to the ſhrub or plant Vlex, whereof I ſpake before; after it is once dried, they burn it, and the aſhes that come thereof, they waſh over turfs of greene graſſe, that the ſubſtance of gold may reſt and ſettle therupon. Some writers have reported, that the countries of Aſturia, Gallæcia, and Luſitania, were woont to yeeld everie yeere 20000 pound weight of good gold gotten after this ſort: yet ſo, as they all do attribute the grea-
C teſt proportion thereof to Aſturia: and there is not any part of the world comparable unto it either for ſo great fertilitie of mines, or ſo long continuance, holding out as they do ſo many ages. As for Italie, our auncient Senat in old time thought good to have it ſpared, and they made an Act, forbidding expreſſely to breake any ground for mines: otherwiſe there is not, I dare bee bold to ſay, a land more plentifull in gold and other mettals. And here there commeth to my remembrance an Act of the Cenſors extant upon record, as touching the gold mine of Ictimulum, a towne in the territorie or countrey of Vercelles; which Act contained an inhibition, that the publicans who fermed that mine of the citie, ſhould not keepe above five thouſand pioners togither at worke there.

Moreover, there is one deviſe to make atificiall gold, to wit, of Orpiment, a minerall digged
D out of the ground in Syria, where it lyeth verie ebb, and the painters uſe it much: in colour it reſembleth gold, but brittle it is in ſubſtance like as glaſſe-ſtones. And verely *C. Caligula* the Emperour (a covetous prince and greedie of gold) was in great hope to extract gold out of this minerall, & thereupon cauſed a huge maſſe thereof to be boiled, melted and calcined: and in truth, he made therof moſt excellent gold, but in ſo ſmall a quantitie, that it would not quit for the coſt and paines about it; inſomuch, as he loſt by the bargaine: yet his avarice was ſuch, as hee would needs make the experiment, notwithſtanding that orpiment it ſelfe was worth fourteen deniers the pound: but he ſped ſo bad, that no man afterwards would go about to trie the like concluſion.

Gold untried is of a divers touch; and generally there is not any but it hath ſilver in it more or leſſe: for in ſome places, the gold ore hath a tenth part in weight of ſilver, in others a ninth, and
E there is again that hath a mixture of the eigth part. In one gold mine within Fraunce, called Albicrarenſe, there is found in gold the ſix and thirtieth part of ſilver and no more: ſuch mettall is not elſewhere found to my knowledge, and therefore it paſſeth all other whatſoever.

There is a baſe kind of pale and whitiſh gold, which hath in it a fifth part of ſilver: and whereſoever this is found, they call it Electrum. Such mettall lieth commonly in trenches and pits minerall, and namely with that gold which I called before Canalienſe. Moreover, there is an artificiall Electrum made, namely by entermingling gold with ſilver according to the naturall mixture: but if it exceed that proportion of one part to five, it will not abide the hammer and the anvill. This white gold alſo hath been of great account, time out of mind, as may appeare by the teſtimonie of the Poët *Homer*, who writeth, that the palaice of prince *Menelaus* glittered with
F gold, electrum, ſilver, and yvorie. At Lindos (a cittie within the Iſland of the Rhodians) there is the temple of *Minerva*, wherein ladie *Helena* did dedicat unto that goddeſſe a cup made of Electrum: and as the ſtorie ſaith moreover, it was framed and wrought juſt to the proportion and bigneſſe of one of her owne paps. This propertie hath Electrum naturally, To ſhine by candle light, more cleare and bright than ſilver. This ſingularitie and proper vertue it hath beſides (if it

be naturall) to discover and shew any poison: for, be there poison in a cup of this mettall, a man G
shall see therein certaine semicircles resembling rainbows, & perceive besides the liquor to keep a hissing & sparkling noise as the fire doth; which two signs, do certainly give warning of poison.

As touching statues of gold: it is said, that the first image that ever was knowne to bee solid and massie, was that of the goddesse *Diana* surnamed *Anaïtis*, which stood within a temple dedicated unto her, which in my Cosmographie I have signified under that name; and this was before any brasen statue of that making. This temple in those parts was accounted in regard of the divine power of this goddesse, most holy and sacred; and such a kind of Image they call Holosphyraton. Howbeit, as religious as the church was, *Antonie* in his voyage into Parthia, spoiled it, and carried away the said image. And here I cannot forget to put downe a prettie speech, which (by report) an old gentleman and souldior of Bononie delivered to *Augustus Cæsar*, at what H
time as he was entertained as a guest and supped with the said Emperour at his owne table: for being demaunded by *Augustus*, whether it was true, that the man who first violated this goddesse, died blind, lame, and bereaved of all his lims? he answered, Yea sir, that it is; and that me thinks you should know best, for even now a leg of his you have at supper, and * all your wealth besides is come unto you by that saccage.

* Fot *Augustus Cæsar* defeited *Antonie*, & was mightily enriched by the spoile of him.

The first man that * caused his owne statue to be made of gold, and the same solid and massie, was *Georgius Leontinus* the great Orator and Rhetorician, which (to immortalize his own name) he set up in the temple at Delphos; and this was about the 70 Olympias: whereby wee may see what wealth and gain was gotten in those daies by teaching Oratorie and the Art of Rhetoricke.

* And yet other writers say, that all Greece erected that image to honor him withall.

But to come at length unto the medicinable vertues of gold: certes, divers waies effectuall it I
is in the cure of many diseases: for first of all, soveraigne it is for greene wounds, if it be outwardly applied: and if young children weare it about them, lesse harme shall they have by any sorcerie, witchcraft, or enchantments, that be brought into the house, or practised where they are: howbeit, gold it selfe if it be carried over one, is thought to bee mischievous and hurtfull: for in that sort it doth harme also to hens that couve and sit, or ewes that are great with lambe and readie to yeane. But what is the remedie to prevent this mischiefe? marry take the same gold that is thus brought in place to doe a shrewd turn, wash it well, and with that water besprinkle them that you would cure. Moreover, gold may bee torrified once with corns of salt taken to the triple weight thereof; and a second time with two parts of salt, and one of the stone which they call Schistis: by this manner of preparing, all the venomous and hurtfull qualitie that is therein, it doth transK
fuse into the other things that be calcined or burnt therewith (which must be done upon an earthen vessell) and it selfe continueth pure and incorrupt still. Now the rest of the ashes separated from the gold, saved in an earthen pot, and incorporat with water into the forme of a liniment, healeth the foule tettar that appeareth in the face: it cureth the same disease also, if the face bee rubbed with the said ashes and beane floure togither, but then it must be afterwards washed off. These ashes thus prepared, cure the hollow ulcers called fistuloes, and also the hæmorrhoids: but in case you put therto the * floure of salnitre, it healeth corrupt & putrified ulcers, and such as stink againe: the same being boiled in hony with Nigella Romana, doth gently loose the belly, if the navell be anointed therw th. To conclude, *M. Varro* saith, that gold will cause werts to fall off.

* *Nitrispama*, or *Aphronitrũ*, *i.* Saltpetre.

L

Chap. V.

Of Borras, and the six medicinable properties that it hath: the wonderfull nature thereof in sodring one mettall with another, and in bringing all mettals to their perfection.

Chrysocolla, called otherwise Borax, or greene earth, is found in those pits and mines that are digged for gold: and a humor it is at the first, running along the veine of gold, which as it thickneth and groweth muddie, congealeth at length by the extreame cold of winter to the hardnesse of a pumish stone. Howbeit, the best kind of Borax we have knowne by experience to be engendred in mines of brasse; and the next to it for goodnesse, in those of silver: otherM
whiles also men meet withall in leaden mines, but the same is not so good as that which the gold mines do yeeld. Moreover, there may be an artificiall Borras made in all the said mettall mines, but far inferior to that which is naturall; namely, by letting water gently to run amoug their veins all winter long untill the month of Iune: the which water, in Iune and Iuly will grow to be dry and

proove

A proove Borras; whereby a man may perceive plainly, that Borras is nothing els but a putrified veine of mettall. But this minerall, if it bee of the owne kind, differeth from this other which is made by art of man, eſpecially in hardneſſe, for much harder it is, and called the yellow Borax, or in Latin, Lutea: and yet it may be brought to that colour by artificiall means, namely by dying with an hearb called likewiſe *Lutea: for of this nature it is, that it will take colour & drinke it in, as well as linnen or woollen. But for to dreſſe and prepare it for the purpoſe; firſt, they pun it in a mortar, then they let it paſſe through a fine ſerce; afterwards it is ground or beaten againe, and ſo it is ſerced a ſecond time through a finer ſerce; whatſoever paſſeth not through but remaineth behind, muſt be punned once more in a mortar, & ſo ground into a ſmall powder: and ever as they have reduced any into powder, they put it into ſundrie pots or cruſes: then they let the

B ſame to lie infuſed & ſoked in vinegre, untill the hardneſſe therin be wholly reſolved: which done, to the mortar it goeth againe, where it muſt be throughly ſtamped for altogither: and ſo when it is well waſhed out of one trey or boll into another, they let it drie: after it is thus prepared, they give it a colour with the hearbe Lutea (beforeſaid) and alume de plume: and thus you ſee, it muſt be painted and died firſt, before it ſelfe ſerve to paint or die withall. And herein it skilleth much how pliable & apt it is to receive the ſaid colour; for unleſſe it have willingly taken a deep tincture, they uſe to put therto Schytanum and Turbyſtum, for ſo they call two drugs which ſerve to make it take a colour the better. This Borax thus died, our painters uſe to call Orobitis: and two kinds they make therof; to wit, Lutea, *i.* the yellow, which they keep for the pouder or colour *Lomuntum; the other liquid, namely when the ſaid grains or pellets be reſolved into a kind of moiſture

C like drops of ſweat. This Borax of both ſorts, is made in the Iſle Cypros. The principall and beſt of all other, commeth from Armenia: in a ſecond degree, from Macedonia: but the greateſt quantitie thereof is in Spaine. The excellent Borax is knowne by this marke eſpecially, If it reſemble perfectly in colour the deepe and full greene that is in the blade of corne well liking. In our time, and namely in the daies of the Emperour *Nero*, the floore of the grand cirque or ſhew-place at Rome, was ſeene paved all over with greene Boras, at what time as he exhibited goodly ſights and paſtimes to the people; and namely, when he meant himſelfe to run a race with charriots, and tooke pleaſure to drive his horſes upon a ground ſutable to the colour of the cloth or liverie that he * wore himſelfe at that time: and in truth, a world of workemen he brought thither to lay the ſaid paving. All the ſorts of Boras may be reduced into three diſtinct kinds: to wit, the

D rough, valued at ſeven denarij a pound; the meane, which is worth five; and the powdred Boras, called alſo the graſſe-greene Borax, which coſteth not above three deniers the pound. As for the ſandie or powdred Boras, the painters before they uſe it, lay the firſt ground underneath it, of vitrioll and *Parætonium, and then the Borax aloft: for theſe things take it paſſing well, & beſides give a pleaſant luſtre to the colour. This Parætonium (for that it is moſt fattie & unctuous by nature, & for the ſmoothnes beſides moſt apt to ſticke too and take hold) ought to be laid firſt; upon which muſt follow a courſe of the vitrioll over it, for feare leaſt the whiteneſſe of the foreſaid Parætonium doe pall the greenneſſe of the Borax, which is to make the third coat. As for the Borax called Lutea, ſome thinke it tooke that name of the hearbe Lutea; which alſo, if it bee mixed and tempered with azure or blew, maketh a greene, which many doe lay and paint withall in ſtead

E of Borax; which as it is the cheapeſt greene of all other, ſo is it a moſt deceitfull colour.

Borax doth not onely ſerve painters, but is much uſed alſo by Phyſicians; and namely, to mundifie wounds and ulcers, if it be made into a ſalve with wax and oile: and drie as it is of it ſelfe in powder, it hath a deſiccative qualitie, and doth conglutinat and ſoder verie well: being mixed with honey into an electuarie, they give it inwardly unto thoſe that have the ſquinancie, and cannot draw their wind but ſitting upright, & ſo it provoketh vomit. Moreover, it entreth into many collyries or eyeſalves, eſpecially to conſume and diſcuſſe the cicatrices and films growing within the eyes: it goeth alſo to the making of greene plaſtres, ſuch as bee applied either to mitigat paine, or to heale the skin. And verely this Borax not artificially died, thus emploied in phyſick, the Phyſicians call Aceſin; and is not that which men name Orobitis, and which receiveth a tin-

F cture from mans hand.

Furthermore, there is a Borax or Chryſocolla, which goldſmiths occupie eſpecially about ſodring their gold: & of this kind all the reſt take the name alſo of Chryſocolla. This is altogither artificiall, and is made of Cyprian verdegris or ruſt of braſſe, the urine of a yong lad, and ſalnitre, tempered all togither and incorporat in a braſen mortar, ſtamped with a peſtill of the ſame met-

* Some take it to be weld or yellow.

*Lomuntum, See the beginning of the next booke.

* For ſome were called *Praſſini* that ran for the priſe, *i.* Greenkins.

* A kind of chalkie earth, or clay, growing neare the ſea ſhore.

* Whereupon it tooke the name *Chryſocolla, i.* goldglew or ſoder.

tall. Our countrymen in Latin call this Borax Santerna: with it they use to soder that gold especially which standeth much upon silver, and is therfore called Argentosum. This kind of gold may be known thus; namely, if it will looke bright and cleare upon the putting of Santerna unto it: whereas contrariwise, if it hold much upon brasse (and such gold is named Æroſum) it will have no lustre at all, but looke dim and duskish upon the laying of Borax upon it, and besides will hardly be sodred. But to soder such gold, there is a proper glew or soder made, with an addition of gold and the seventh part of silver to the rest abovenamed, and all the same stamped and united togither. And since I am entred into the feat of sodring, it were verie meet and convenient to annex unto this present discourse, all things else concerning it, that wee may under one view behold the admirable works of Nature in this kind. The soder of gold then, is Borax, which I have shewed alreadie. Iron is sodred with the stiffe potters cley Argilla. Brasse ore or Chalamine called Cadmia, serveth to unite and knit peeces of brasse togither in masse. Alume is good to hold plates of brasse one to another. Rosin doth soder lead, and besides is the proper cement of marble: but blacke lead will joyne well, by the means of the * white: and one peece of tin with another, with the helpe of oile. In like manner, tin will hold sure with a soder of brasse file-dust; and silver, with tin. Both brasse or copper, and also iron ore, melt best with a fire made of Pine-wood; as also with the Papyr reed in Ægypt: but contrariwise, gold soonest melteth with a fire of chaffe and hulls. Quickelime will catch an heat and burne, if water be cast upon it, and so doth the * Thracian stone: but the same, oile doth quench. Fire is most of all extinguished and put out with vinegre, with birdlime, and the white of an egg. No kind of right earth will burne light or flame. Finally, charcole which hath been once on fire, then quenched and afterwards set a burning againe, is of more force and giveth a greater heat, than that which commeth new from the hearth.

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* Some take this for Tinglasse.

* Which some take for pitcole, or seacole rather, such as commeth frō Newcastle by sea: or rather a kind of jeat.

Chap. vi.

Of Silver, Quicke-silver naturall, Stibium, or Alabastrum. The drosse or refuse of silver, and litharge of silver.

IT followeth by good order to write in the next place, of silver mines, from whence proceedeth the second rage that hath set men a madding: where first and formost this is to be noted, that there is but one means to find silver, and that is in pits sunke of purpose for it: neither is there any shew at all of silver to give light thereof, and to put us in hope of finding: no sparks shining, like as there be in gold mines which direct us to it. The earth that engendreth the veine of silver, is in one place reddish, in another of a dead ash colour. But this a generall rule, that it is not possible to melt and trie out silver ore, but either with lead, or the veine and ore of lead. This minerall or mettall they call * Galena, found for the most part neare to the veins and mines of silver. Now by the means of fire, when these are melted togither, part of the silver ore settleth downeward and turneth to be lead, the pure silver floteth aloft, like as oile upon water. In all our provinces, yea and parts of the world to speake of, there be mines of silver to be found: howbeit the fairest be in Spaine, and yeeld the finest and most beautifull silver: and the same also like as gold, is engendred in a barraine soile otherwise and fruitlesse, and even within mountains: looke also where one veine is discovered, there is another alwaies found not far off: which is a rule observed not in mines of silver onely, but also in all others of what mettall soever; and hereupon it seemeth that the Greeks doe call them * Metalla. And verely, straunge it is and woonderfull, that the mines of silver in Spaine which were so long agoe begun by *Annibal*, should continue still as they doe, and retaine the names of those Carthaginians who first found, discovered, and brought them to light: of which, one named then Bebelo, & so called at this day, yeelded unto *Annibal* daily 300 pound weight; which mine even at that time had gone under the ground and hollowed the mountaine a good mile and a halfe: and all that way the Aquitans at this day standing in water, lade the same up, labouring night and daie by the candle or lampe-light, everie man in his turne, and during the burning of a certaine measure of oile, in such wise as they divert the water from thence, and make a good big river thereof, to passe and run another way. A veine of silver which lieth but ebb within the ground, and is there discovered, the miners call Crudana, as it were a raw veine. In old time those that digged for silver, if they met once with alume, were woont to give over their worke and seeke no farther: but of late daies it happened, that under alume there was found a veine of white brasse or laton, which fed mens hopes still,

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* or, *Molybdæna.*

* *quasi μετ' ἄλλα*, one after another.

and

A and cauſe them now to ſinke lower, and never reſt ſo far as they can dig. And yet there is a dampe or vapour breathing out of ſilver mines, hurtfull to all living creatures, and to doggs eſpecially. Moreover, this point is well to be marked, that gold and ſilver both, the ſofter that they bee and tender, the better they are eſteemed: and ſilver beeing white as it is, moſt men marveile how it commeth to paſſe, that if one rule paper or any thing therewith, it will draw blacke lines, and ſullie as it doth.

Furthermore, within theſe veins and mines aboveſaid, there is a certaine ſtone found, which yeeldeth from it an humor continually, and the ſame continueth alwais liquid: men call it *Quick-ſilver (howbeit, being the bane and poiſon of all things whatſoever, it mought be called Death-ſilver well enough) ſo penetrant is this liquor, that there is no veſſell in the world but it will eat B and break through it, piercing and paſſing on ſtill, conſuming and waſting as it goeth: it ſupporteth any thing that is caſt into it, and will not ſuffer it to ſettle downeward but ſwim aloft, unleſſe it be gold onely; that is the only thing which it loveth to draw unto it and embrace: verie proper it is therefore to affine gold; for if gold and it bee put togither into earthen pots, and after often ſhaking be poured out of one into another, it will mightily purifie the gold and caſt forth all the filthie excrements thereof; and when it hath rid away all the impurities and groſſe refuſe, it ſelfe ought then to be ſeparated from the gold: for which purpoſe, poured forth the one & the other ought to be, upon certaine skins of leather well tewed and dreſſed untill they bee ſoft; through which the quick-ſilver may paſſe; and then ſhall you ſee it ſtand upon the other ſide in drops like unto ſweat ſent out by the pores of our skin, leaving the gold pure and fine behind it: and verely C the affinitie between gold end quick-ſilver is ſo great, that if any veſſels or peeces of braſſe are to be guilded, rub the ſame over firſt with quicke-ſilver before the goldfoile bee laid on, it will hold the ſame moſt ſurely: mary this one diſcommoditie there is in it, that if the leaves of gold be either ſingle or verie thin, the whiteneſſe of the quick-ſilver will appeare through, and make the guilding more pale and wan: and therfore our cunning goldſmiths who would make their chapmen to pay for their plate as double guilt (when it is indeed but thin laid and ſingle) and ſo picke their purſes, ſet a rich and deepe colour upon their worke for the time, by laying under the gold in ſtead of quicke-ſilver naturall, the white of an egg, and then upon it artificiall quick-ſilver named Hydrargyrum, whereof I purpoſe to write in place convenient. And to ſay a truth, the right quick-ſilver which is of the owne kind, is not commonly found in great plentie.

D Over and beſides, within the ſame mines and among the veins of ſilver, there is found a minerall, which to ſpeake properly, is a ſtone concreat of a certaine ſcum or foame, white and ſhining, howbeit not tranſparent, which is called by ſome Stimmi, by others * Stibium, Alabaſtrum, or Larbaſon. And hereof there be two kinds, the male and the female: but the female Antimonie or Stibium is the better eſteemed: for the male is more rude, rough, and rugged; and yet for all that, not ſo weightie, bright, and radiant; beſides that, it is more charged with ſand: whereas the female contrariwiſe, ſhineth and glittereth plentifully; beeing alſo brittle and tender, apt to cleave eaſily into plates or flakes, and not to breake into lumps and gobbets.

Touching the vertues of Stibium pertinent unto phyſicke; aſtringent it is and refrigerant, but a principall and peculiar medicine to be emploied about the eyes; for thereupon it was that E moſt men called it Platyophthalmon, for that beeing put into thoſe ointments which are to *beautifie the eyes of women, (named thereupon Calliblephara) it ſeemeth to extend the compaſſe of the eyes, and make them appeare more open, faire, and *large withall. Antimonie pulverized and incorporat with the powder of frankincenſe, by the means of gum withall, ſtayeth the flux of humors into the eyes, and healeth the fretting and exulcerations incident thereto: being otherwiſe a proper medecine to ſtaunch the bloud that guſheth or iſſueth from the brain. But for to ſtop the bleeding of any freſh wound, the powder of Antimonie alone is thought to be more effectuall, if the place be ſtrewed withall: which alſo is a ſingular thing to heale the old bitings of doggs. It cureth moreover, any burne occaſioned by fire, in caſe it bee tempered in ſome convenient ſewet and wax, with litharge of ſilver and ceruſe or white lead, and ſo reduced F into a ſalve. But for to prepare Antimonie aright, it ought to be well luted all over with a certaine kind of paſt made of cow-dung, and then burnt and calcined in an oven: which beeing done, to bee quenched with womans milke, and then ſtamped and brayed well in a mortar, putting thereto raine water among, and ever and anon the troubled water ought to be transfuſed into a veſſell of braſſe; and clarified therein togither with ſal-nitre. As for that which ſettled in the

*Or life-ſilver.

* We call it *Antimonium*.

*And therfore *Jon* called it μέλαναν στίμμι ἰμματοχοίφον, when hee reckoneth up the devices that queen *Omphale* had to paint & trim her ſelfe.

* Which was coũted a grace in old time, as may appeare by *Homer*, who giveth to Qu. *Juno* the Epithet of βοῶπις, i. broad eied, as is a cow or heifer.

the bottome of the mortar, is held to be the droſſe and dregs thereof, ſtanding moſt upon lead, C
and is throwne away as good for nothing: but the pot or veſſell whereinto the troubled water aforeſaid was powred, after it is well covered and ſtopped with a linnen cloth, muſt be ſuffered to ſtand all night to take a ſettling; and the next morrow that which floteth aloft, is to be powred out by little and little, and the reſt of the liquor to be ſoked forth with ſpunges, and ſeparated from the antimonie. Now, that which reſteth in the bottome, is taken to bee the floure of antimonie, and ſo called; which they lay forth in the Sun a drying, covered with a fine linnen cloth, that it ſhould not be overmuch dried: which done, they beat this fine floure againe in a mortar, and ſo reduce it into trochiſques. But in this operation of preparing antimonie, above all things regard would be had in the burning thereof, that it be not overmuch calcined and ſo turne into lead. Some, in the burning of antimonie, uſe not dung as is beforeſaid, but rather lap the ſame H
about with ſome greace or tallow: others, after it is well beaten and punned, ſtreine it with water through a threefold linnen cloth, & caſt away the dregs remaining behind: but the liquor which paſſed through, they poure out of one veſſell into another, and the reſidence alwaies they gather and ſave, which they mix in the compoſition of plaſtres and eyeſalves or collyries.

As touching the droſſe or refuſe in ſilver, the Greeks call it Helcyſma: the nature thereof is aſtringent and refrigerative: it entreth into plaſtres, like as lead ore doth, (which is named Molybdæna, and whereof I entend to write in my treatiſe of lead) eſpecially thoſe that are made for to heale, cicatrice, and skin. Alſo being injected by way of clyſtre with oile of myrtles, it cureth tineſms and dyſenteries. It is uſed much alſo in thoſe lenitive and uncteous plaſtres named Liparæ; and ſerveth likewiſe for the excreſcenſe of proud fleſh in ulcers; for thoſe exulcerations which I
come of rubbing and fretting, or the running ſores and ſcalls in the head.

Within the mettall mines aforeſaid, there is engendred another minerall, knowne by the
3 name of Spuma argenti, [*i.* the ſome of ſilver] commonly called litharge; and three ſorts there be found of it. The beſt litharge, of gold, which they call Chryſitis: the ſecond, of ſilver, named Argyritis: and a third, of lead, which is Molybditis: and many times all theſe kinds ſo diſtinct in colour, are found in one and the ſame lumpe or puffed loafe of litharge. The beſt litharge is brought out of the region Attica: the next in goodneſſe commeth from Spaine. Litharge of gold named Chryſitis, is made of the verie mine and veine of ſilver; Argyritis, of ſilver it ſelfe; and Molybditis, of the lead which is melted with the ſilver: as wee may ſee at Puteoli, where great ſtore of it is made, and of that place tooke the name Puteolana. All the ſorts of them are made, K
after that the mettall or matter appropriat unto them, is throughly melted and tried; for it runneth downe from the upper pan into that underneath: out of which, it is taken up with yron broches; and to the end that it might be of a ſmall weight, ſome wind it about the broch in the
* *Spuma argenti.* verie flame of the furnace: and as it may appeare by the verie * name, it is no other thing but the ſcum of the ore or mettall boiling and melting over the furnace: from droſſe it differeth as much as ſcum or froth above, may from dreggs or lees beneath: and as the one is an excrement caſt up from a matter whiles it is purging it ſelfe, ſo the other is the refuſe or grounds thereof after it is purged and ſetled. Howbeit, many there bee, who make but two kinds of this ſome or
* or rather, *Stereotis.* litharge; the one * Stereſitis, as it were ſolide and maſſive; the other * Peumene, as one would
* or rather, *Pneomene.* ſay, puffed up and full of wind. As for the third, named Molybdæna, they reckon as a thing by L
it ſelfe; to be treated of in the diſcourſe or chapter of Lead. Now the Litharge aboveſaid, ought for the uſe that it is emploied about, for to be prepared in this manner: Firſt, the lumps aforeſaid are broken into ſinall peeces as big as hazell nuts, and ſet over the fire again: thus when it is once red hot by the blaſt of bellows, to the end that the coles and cinders might be ſeparated one from another, there is wine or vinegre caſt upon it, both to waſh, and alſo withall to quench the ſame. Now if it be Argyritis, to the end that it may looke the whiter, they uſe to breake it to the bigneſſe of beans, and give order to ſeeth it in water within an earthen pot, putting therto wheat and barly lapped within peeces of new linnen cloth, and ſuffer them to boile therwith untill they
* *Rumpuntur.* * burſt: which done, for ſix daies togither they pun it in mortars, waſhing it thrice everie day in cold water, and in the end with hot; and ſo at length put to everie pound of the ſaid litharge, the M
weight of one obolus of Sal-genum: the laſt day of all, they put it up in a pot or veſſell of lead. Some there be who ſeeth it with blaunched beans and husked barley, and after that, drie it in the Sun: others thinke it better to ſeeth it with beans and white wooll, untill ſuch time as it colour the wooll no more blacke: then they put thereto Sal-genum, chaunging eftſoons the water, and

drie

A drie it for the space of fortie daies together in the hotest season of the Summer. There be againe who thinke it best to seeth it in water within a swines bellie, and when they have taken it forth, rub it well with salnitre, & pun it in morters as before, with salt. Ye shall have them that never bestow seething of it, but onely beat it with salt, and then put water thereto and wash it. Well, thus prepared as is beforesaid, it serveth for collyries and eye-salves: in a liniment also, to take away the foule cicatrices or scars, the pimples and speckes likewise that marre the beautie of women, yea, and our dames wash the haire of their head withall to make it cleane and pure. And in very truth litharge is of power to drie, mollifie, coole, and attemper; to cleanse also, to incarnat ulcers, and to assuage or mitigat any tumors. Beeing reduced into the unguents and plastres abovesaid, and namely, with an addition of rue, myrtles, and vinegre, it is singular for S. *Anthonies* fire. Sembla-
B bly, being incorporat with oile of Myrtles and wax into a cerot, it healeth kibed heeles.

Chap. VII.

Of Vermillion: and of what estimation it was among the old Romanes: the first invention thereof. Of Cinnabaris, the use thereof in pictures and in Physicke. The sundrie sorts of Minium or Vermillion, and how it is to be ordered to serve Painters.

C THere is found also in silver mines a minerall called Minium, *i.* Vermillion, which is a colour at this day of great price and estimation, like as it was in old time: for the ancient Romans made exceeding great account of it, not only for pictures, but also for divers sacred and holy uses. And verely *Verrius* alleadgeth and rehearseth many authors, whose credit ought not to be disprooved, who affirme, That the manner was in times past to paint the very face of *Iupiters* image upon high and feastivall dayes, with Vermillion: as also, that the valiant captaines, who rode triumphant into Rome, had in former times their bodies * coloured all over therewith: after which manner, noble *Camillus* (they say) entered the citie in triumph. And even at this day, according to that auncient and religious custome, ordinarie it is, to colour all the unguents that are used in the feastivall suppers at a solemne triumph, with Vermillion. And no one thing do the
D Censors give charge & order for to be done, at their entrance into office, before the painting of *Iupiters* visage with Minium. The cause and motive that should induce our aunce stors to this ceremonie, I marvaile much at, and cannot imagine what it should be. True it is and well knowne, That in these daies the Æthyopians in generall set much store by this colour, and have it in great request, insomuch, as not onely the princes and great lords of those countries have their bodies stained throughout therwith, but also the images of their gods are painted with no other colour: in which regard I am moved to discourse more curiously and at large of all particulars that may concerne it.

* To shew what bloudie battels they had fought, & what carnage of their enemies they had made: for without much effusion and drawing of their bloud, they might not triumph.

Theophrastus saith, That 90 yeares before that *Praxibulus* was established cheefe ruler of the Athenians, (which falleth out just upon the 249 yeare after the foundation of our city of Rome)
E *Callias* the Athenian was the first that devised the use of Vermillion, and brought the lively colour thereof into name: For, finding a kind of red earth or sandie grit in the mines of silver, and hoping that by circulation there might be gold extracted out of it, tried what he could doe by fire, and so by that meanes brought it unto that fresh and pleasant hue that it hath: which was the first originall of Vermillion. He saith moreover, That even in those daies there was found Minium in Spaine, but the same was hard and full of grittie sand: likewise among the Colchi, in a certaine rocke inaccessible; by reason whereof, the people of the countrey were constrained by shooting at it, to shake and drive it downe: howbeit the same was but a bastard Minium. But the best simply (saith he) was gotten in the territorie of the Cilbians, somewhat higher in the countrey, than Ephesus: in summe, That the said Minium or Vermillion, is a certaine sandie earth, of a
F deepe skarlet colour, which was prepared in this order: First they pun and beat it into pouder, and then washed it being thus pulverized. Afterwards, that which setled in the bottome, they washed a second time. In which artificiall handling of Minium, this difference there is, that some make perfect Vermillion of it with the first washing: others thinke, the Vermillion of that making to be too pale and weake in colour, and therfore hold that of the second washing to be best.

And

And verely, I wonder not that this colour was ſo highly eſteemed: for even before time, during the eſtate of Troy, the red earth called Rubrica, was in great requeſt, as appeareth by the teſtimonie of *Homer*, who being otherwiſe ſparie ynough in ſpeaking of pictures and colours, yet commendeth the ſhips *painted therwith. The Greeks call our Minium by the name of Miltos, and yet ſome tearme it Cinnabari: And hereof aroſe the error occaſioned by the Indian name Cinnabari. For ſo the Indians call the bloudie ſubſtance of a Dragon cruſhed and ſqueaſed with the weight of the Elephants lying upon them readie to die, to wit, when the ſaid Dragons are full with ſucking out the bloud of Elephants before: and now their own and it are mingled together, according as I have ſhewed heretofore in the ſtorie of thoſe beaſts. And verely, there is not a colour beſides, which expreſſeth the lively colour of bloud in pictures ſo properly as Minium. As for that other Cinnabaris of India, it is moſt holeſome to be put into antidots, preſervatives, and countrepoyſons, yea, and other ſoveraigne medicines to be taken inwardly. But our Phyſicians (beleeve me) for that by an error Minium or Vermillion is called Cinnabaris, uſe in ſteed of Sanguis Draconis, the ſaid Minium; which in very truth is no better than a meere poyſon, as I will ſhew anon. Well, in old time they uſed to draw thoſe pictures and pourtraits which conſiſt of one ſingle colour, & be called Monochromata with this colour Cinnabaris. They painted alſo with the Minium of Epheſus, but they gave it over in proceſſe of time, becauſe ſuch colours were ſo coſtly, and required ſuch paines ere they were prepared and made perfect. Beſides, both the one and the other were thought to be over-quicke and ſtinging in hand: and therefore they betooke themſelves to the red earth Rubrica and Sinopum, of which colours I will ſpeake more in their proper places. But to returne again to Cinnabaris or Sangdragon: it is ſophiſticated and corrupted either with Goats bloud, or elſe with the fruit of Cervoiſes punned. But the true Cinnabaris or Sangdragon is worth fiftie ſeſterces by the pound. As for Minium or Vermillion beforeſaid, king *Iuba* ſaith, That it groweth plenteouſly alſo in Carmania. And *Hermogenes* affirmeth, That Æthyopia likewiſe is not without good ſtore of it. But from neither of thoſe two countries is it brought unto us, nor (to ſay a truth) out of any other place but Spaine. The beſt and moſt excellent is that which commeth out of the territorie of Siſapone in the realme of Granada or Bœtica, a part of Spaine, even from a mine of Vermillion there, which paieth a great cuſtome, and yeeldeth much revenue to the people of Rome: and there is nothing looked unto more ſtreightly for feare of fraud and impoſture: for, lawfull it is not there to dreſſe and refine it; but uncocted and crude is it brought to Rome in the maſſe as it lay within the veine, ſealed by the ſworne maiſters of the mine, which yeeldeth one year with another tenne thouſand pound weight or much thereabout. At Rome it is waſhed, and a price there is ſet upon it by an expreſſe act, namely, That it ſhould not be ſold above ſeventie deniers the pound. But many waies is it ſophiſticated, whereby the ſocietie and fellowſhip of the Publicanes, who had the ordering of it at Rome, robbed the Commonweale, and gained themſelves. For a ſecond kind there is of Minium, found almoſt in every mine of ſilver and lead, the which is made of a certaine ſtone intermingled in the veines of thoſe mettals after the ſame is burnt; and not of that red ſtone which yeeldeth forth the humour that I named before Quickſilver: for this ſtone may it ſelfe with boiling bee brought to ſilver, but of other red peeces of earth found together with the ſaid true Vermillion, which are knowne to be barraine and void of the right Vermillion, onely by the leaden hue which they have: for unleſſe it bee in the furnace they never wax red, and then beeing fully burnt and calcined, they are beaten to pouder. This is that Minium of a ſecond ſort, and much inferiour unto thoſe naturall pouders and ſands of the true Minium, notwithſtanding very few there be that know it. Well, this is that Minium wherewith the true Vermillion is ſophiſticated in the worke-houſes and ſhops of thoſe Publicanes, whoſe companie and fellowſhip had the ordering of it: like as it is corrupted alſo with Scyricum. But how this colour Scyricum is made, I will in due place write hereafter. Certes, our painters to give the better luſtre unto Minium, yea, and to ſave charges, have deviſed to lay the firſt ground under it of this Scyricum. Beſides this, they have another caſt to gaine (or ſteale rather) by Minium; for by reaſon that it ſticketh unto their penſils ever and anon, they waſh it off when they be full: this ſetleth downe to the bottome of the water where it remaineth, and the painters take it for their availes: but they were as good picke their maiſters purſe who ſetteth them aworke. But if a man would know the true and ſyncere Vermillion indeed, it ought to have the rich and freſh colour of skarlet. As for the brightneſſe that is in the ſecond ſort, if a wall bee painted therewith, the naturall moiſture and dankeneſſe that commeth from thence, will abate

the

*Such are called by *Homer* μιλτοπάρῃοι.

A the luſtre ſoone. And yet this Minium is taken to be but a kind of ruſt in mettals, either ſilver or lead, as they lie in the mines. Moreover, the minerall Vermillion found naturally in the foreſaid Minium mines of Siſapona, have no ſilver mixed therewith, boyle and trie it in the fire as much as you will. Alſo the way to find true Minium from falſe, is by the meanes of gold: for touch the ſophiſticat Minium with a peece of gold red hot, it will wax blacke: whereas the true Minium keepeth colour ſtill. [Where by the way note, That I read it may be falſified with Quickelime:] And after the ſame manner, if there be no gold at hand to trie it by, you ſhall ſoone ſee the proofe and find the falſhood by a plate of yron red hot, and uſed accordingly. Furthermore, this hath beene obſerved, That the ſhining beames either of Sun or Moone, doe much hurt to the luſtre of Vermillion, or any thing painted therewith. But what meanes to prevent this inconvenience? Even
B to verniſh the wall after the colour is dried upon it in this manner: Take white Punicke wax, melt it with oile, and while it is hote, waſh the ſaid painting all over with penſils or fine bruſhes of briſtles, wet in the ſaid verniſh. But when this vermiſh is laid on, it muſt be well chafed & heat againe with red hot coales made of Gall-nuts held cloſe unto it, that the wall may ſweat and frie againe: which done, it ought afterwards to be rubbed over well with cerecloths, and laſt of all, with cleane linnen cloths, that it may ſhine againe and be ſlicke as ſtatues of marble be.

Moreover, the workmen that are emploied in their ſhops about the making of Vermillion, do bind unto their faces in manner of Maskes, large bladders, that they may take and deliver their wind at libertie, and yet not bee in daunger of drawing in with their breath that pernicious and deadly pouder, which is no better than poyſon: yet ſo, as they may ſee out of the ſaid masks ne-
C vertheleſſe.

To conclude, Vermillion is uſed much in limning the titles and inſcriptions of rols and books, it ſetteth foorth the letters alſo, and maketh them more faire and beautifull which are written in tables over ſepulchres, be they enriched otherwiſe either with gold or marble ſtone.

Chap. VIII.

Of Quickſilver artificiall, called Hydrargyrum. Of guilding ſilver. Of Touch-ſtones for to trie the diverſe kinds of ſilver.

D SO inventive is the wit of man, that there hath beene deviſed in the world a meanes to make an artificiall Quickſilver in ſtead of the true and naturall, and that out of the ſecond kind of Minium which before I called Secundarium. I ſhould erewhile have ſpoken thereof in the chapter of the right Quickſilver, but deferred it I have no farther than to this preſent place. Firſt therefore this is to be underſtood, that made it is two manner of waies, ſometimes of the Minium aforeſaid punned with vinegre in morters, and with peſtles all of braſſe; otherwhiles it is drawne by fire: for they put ſecundarie Vermillion in an earthen pot well luted all over with cley, upon which there is ſet a pan of yron, & the ſame covered over the head with another pot well cemented; under which earthen pot abovenamed, there ought to be a good fire made, & the ſame kept continually with blowing: and thus by circulation there will appeare a dew or ſweat in the uppermoſt veſſell proceeding from the vapors reſolved, which beeing wiped off, will in ſubſtance ſhew
E liquid as water and in colour reſemble ſilver: The ſame liquor is eaſie to devide into drops, and as apt againe by the lubricitie thereof, to run into an humor. This Quickſilver beeing by the judgement of all men a ranke poyſon, I ſuppoſe, that all things repotted of Minium as medicinable, be dangerous remedies, unleſſe haply that by inunction of the head or belly, it ſtaieth flux of bloud; with this caution and charge notwithſtanding, that it neither perce and enter into the inward noble parts, nor touch the wound: for otherwiſe my conceit is, that it ought not to be uſed. I ſee that now adaies ſilver onely, and in manner nothing elſe, is guilded by the meanes of this artificiall Quickſilver: wheras gold foile ſhould be laid alſo after the ſame maner upon veſſels, or any workmanſhip of braſſe: but (as I have beforeſaid) the deceit and fraud that is every where in the world, which maketh men ſo wittie as they be, hath deviſed other meanes of guilding, and thoſe of leſſe
F diſpence and charge than with any Quickſilver, according as I have before declared.

I cannot thus write as I doe ſo much of gold and ſilver, but me thinks I muſt of neceſſity ſpeak of the ſtone which they call in Latin *Coticula, which in times paſt was not uſually found in any place but in the river Tmolus, as ſaith *Theophraſtus*: but in theſe daies wee find it every where: ſome call it Heraclius, others Lydius. Now theſe ſtones all the ſort of them are but ſmall, not

* *i.* The touch-ſtone,

excee-

exceeding foure inches in length, and two in bredth. That part or ſide which lieth above toward G
the Sunne when it is found, is thought better for touch, than the other which lieth to the earth.
By meanes of theſe touchſtones, our cunning and expert mine-maſters, if they touch any ore of
theſe mettals, which with a pickax or file they have gotten forth of the veine in the mine, will tell
you by and by how much gold there is in it, how much ſilver or braſſe, and they will not miſſe a
ſcruple: a wonderfull experiment and the ſame infallible.

As touching ſilver, two degrees there be of it, different in goodneſſe, which may bee knowne
and diſcerned in this manner: For lay a peece of ſilver ore upon a ſcliſe, plate, or fire pan of yron
red hot, if it continue white ſtill, it is very good, if the ſame become reddiſh, goe it may for good
too in a lower degree; but in caſe it looke blacke, there is no goodneſſe at all in it. Howbeit, there
is ſome deceit alſo in this triall and experiment, which may croſſe a man in his judgement: for H
let the ſaid ſcliſe or plate lie a time in a mans urine, be the ore never ſo baſe that is laid thereupon
when it is burning red hot, it will ſeeme to take a white colour for the time, and deceive him that
ſhall ſee it. To conclude, there is another pretie proofe of ſilver fine, if it be bright and burniſhed,
and that is by breathing upon it: for if the breath be ſeene therupon preſently as a ſweat, and the
ſame paſſe away incontinently as a cloud, it is a ſigne of perfect ſilver.

Chap. ix.

Of mirroirs or looking glaſſes. And of the Ægyptian ſilver.

AN opinion it was ſometime generally received and beleeved, That no plates might be dri- I
ven by the hammer, nor mirroirs made, but of the beſt and pureſt ſilver: And even this ex-
periment is falſified and corrupted by deceit. But ſurely a wonderfull thing in Nature this
is of theſe mirroirs of ſilver, that they ſhould repreſent ſo perfectly the image of any thing that
is before them, as they doe: which muſt needs be (as all men confeſſe) by the reverberation of the
aire from the ſolid bodie of the mirroir, which beeing beaten backe againe from it, bringeth
therewith the ſaid image expreſſed therin. The ſame reverberation is the cauſe that ſuch looking
glaſſes as by much uſage are poliſhed and made ſubtile, doe in that ſort gently drive backe the
image repreſented within them, that it ſeemeth infinitly big in proportion of the bodie it ſelfe:
ſuch difference there is in them, and ſo materiall it is, whether they repercuſſe and reject the aire,
or receive and entertaine it. Moreover, there bee drinking cups ſo framed and faſhioned with a K
number of mirroirs within, that if there doe but one looke within them, he ſhall imagine that he
ſaw a multitude of people, even as may images as there bee mirroirs. There are deviſed looking
glaſſes alſo, which will repreſent monſtrous ſhapes; and ſuch be thoſe mirroirs that are dedicated
in the temple at Smyrna: but this commeth by reaſon that the matter wherof they be made, is in
that ſort faſhioned. For it skilleth much whether mirroirs be hollow, either in manner of a drin-
king pot, or of a Threcidian buckler: whether the middle part lie low and inward, or riſe & beare
out with a bellie: whether they bee ſet croſſe and overthwart, or ſtand bias: whether they hang
with their heads bending backward, or bolt upright: For according as the matter which receiveth
the image, is diſpoſed to this or that faſhion, or ſet one way or other, ſo it returneth the ſhaddows
backe againe: for verely the ſaid image repreſented in a mirroir, is nothing els but the brightnes L
and cleareneſſe of the matter which receiveth the ſame, returned and beaten backe againe. But
to goe through in this place with all things concerning ſuch looking glaſſes, the beſt knowne in
old time unto our auncеſtors, came from Brindis, and thoſe conſiſted of tin and braſſe tempered
together. But when ſilver mirroirs came in place, thoſe went downe, and theſe were preferred be-
fore them. The firſt that made them of ſilver, was *Praxiteles* in the dayes of *Pompey* the great. Of
late, men had this opinion of ſilver mirroirs, That they would repreſent an image more lively and
truly, in caſe their backe part were laid over with gold.

But to returne again to ſilver, the Ægyptians uſe a deviſe to paint it, to the end that they would
drinke more devoutly, ſeeing their god *Anubis* painted within their pots. And in truth they reſt
contented with painting their plate, and never grave or chaſe any peeces. This deviſed faſhion is M
grown into ſuch credit by the precedent received from thence, that the ſtatues of ſilver caried in a
ſhew at triumphs, be nought ſet by, unleſſe they be alſo enamelled and painted blacke: & wonder-
full it is how much more precious they are thought to be when the native brightnes therof is hid-
den, & the light therof quite put out or blindfolded. The maner of making this black ſilver, is thus:

They

A They take of ſilver and ſulphur vif as much of the one as the other, of Cyprian braſſe or latton plates(which braſſe they call Coronarium) as thin as may be, a third part: theſe they mix together and melt them in an earthen pot well luted all over with cley: and boile they muſt ſo long, untill the lid of the pot doth riſe up and flie open of it ſelfe. Moreover, ſilver will looke blacke with the yolke of an egge roſted hard and well beaten with vinegre and Tripoli.

To come now unto thoſe that counterfeit money. *Antonius* whiles hee was one of the three uſurping Triumvirs, mixed yron with the Romane ſilver denier. He tempered it alſo with the braſen coine, and ſo ſent abroad falſe and counterfeit money. Others there be that make money too light (namely, under the lawfull proportion) which is, to coin and ſtampe for every pound weight of ſilver foureſcore and foure deniers. This enormitie grew to this paſſe, that *M. Gratidianus* pub-
B liſhed a law, by vertue whereof there was an act inſtituted and ordained for the proofe and allowance of ſilver deniers, what touch & what poiſe they ſhould have: by which act of his he ſo pleaſed the Commons of Rome, that there was not a ſtreet throughout all the citie, but they erected a ſilver ſtatue, pourtraied all whole in a gowne in the favour and honour of *Marcius Gratidianus*. But ſtrange it is, and a man would not think it, that this art and cunning deviſed for the detecting of falſhood and forgerie, is the onely meanes to teach deceit and wickedneſſe, for many a man will give too too much for falſe money: yea, and many ſilver deniers for one counterfeit, well and cleanely made; to take forſooth a patterne thereby, and learne to deceive others.

Chap. X.

C

Of exceſsive ſummes of money in mens hands. Who they were in old time that were thought richeſt. And when there began largeſſes at Rome, and money to be ſcattered and caſt abroad to the people.

IN old time men knew no number above a hundred thouſand: and therfore at this day alſo inſtead of a million we multiplie the ſaid number by tenne, and ſay thus in Latine, *Decies centina millia*, *i.* A hundred thouſand tenne times told, and ſo forward, *repeating alwaies a hundred thouſand to the numerall adverbe, as the ſumme doth amount. Vſuries, intereſts, and coined mo-
D ney have been the cauſe of theſe multiplications: and by that occaſion alſo came debts to be called even to this age, by the name of *Aes alienum*. And thereof aroſe the proud name of *Divites*, *i.* Rich, for great monied men were ſo called. Yet take this withall, That the firſt man that ever was knowne by that ſurname *Dives*, brought a ſhilling to nine pence in the end, prooved Banquerout, and defeated his creditours. As for *M. Craſſus*, one of that ſame houſe, and who gave the ſame armes, would commonly ſay, That no man was to be counted rich, and worthie of that title *Dives*, unleſſe he were able to diſpend by the yeare as much in revenues as would maintaine a legion of ſouldiors. And verely his owne lands were eſteemed worth *Bis millies ſeſtertium*, that is to ſay, Two hundred millions of ſeſterces, Roman: and ſetting aſide *Sylla*, he was the richeſt Roman that ever was knowne. And yet ſuch was his avarice, that hee could not content himſelfe with that wealthie eſtate, but upon a hungrie deſire to have all the gold of the Parthians, would needs un-
E dertake a *voiage againſt them. And albeit by his ineſtimable wealth he uſurped the title and addition of *Optimus*, *i.* The beſt, in his time, yet (for me thinks it doth me good to proſecute ſtill, and inveigh againſt this inſatiable deſire of having more) we have knowne many after him, and thoſe otherwiſe of baſe condition, and no better than ſlaves newly enfranchiſed, to have growne unto greater wealth; and namely three at one time, to wit, during the Empire of *Claudius Cæſar*: and thoſe were *Pallas*, *Calliſtus*, and *Narciſſus*, late bondſlaves all to the ſaid Emperour. But to let theſe men paſſe, as if they were lords ſtill of wordly wealth: in that yeare wherein *C. Aſinius Gallus* and *C. Marcius Cenſorinus* were Conſuls of Rome, died *C. Cæcilius Claudius*, who ſignified by his laſt will and teſtament, bearing date the ſixth day before the Calends of Februarie, the yeare above written, That albeit he had ſuſtained exceeding great loſſes during the troubles of the civile war,
F yet he ſhould leave behind him at the houre of his death, of ſlaves belonging to his retinue four thouſand one hundred and ſixteene; in Oxen, three thouſand and ſix hundred yoke; of other cattaile 257000 head; and in readie coine, H-S DC. *i.* threeſcore millions of ſeſterces Romane. And beſides, he ſet out for defraying of his funerall charges, *eleven thouſand ſeſterces, and gave order expreſſely, to bee enterred ſo ſumptuouſly. But what of all this? Set caſe theſe and ſuch like men

*To wit, twentie times, or a hundred times; a hundred thouſand, &c.

*i. Craſſus.

* In which expeditiõ he was taken priſoner by *Surinas*, lieutenant general for the king of Parthia: who ſtrake off his head, & poured gold melted into his mouth to ſatisfie his hunger after it.

*H-S. XI. which if you read by the numerall adverbe (*undecies*) amounteth to the ſaid ſum a hundred times told.

men gathered together innumerable ſummes of money, and an infinit maſſe of goods, yet they ſhall come nothing neare to the wealth of king *Ptolomæus*, who according to the teſtimonie of *M. Varro* (at what time as *Pompey* the Great warred about Iurie) maintained eight thouſand horſmen in pay continually with his owne privat purſe: kept an ordinarie table within his court of a thouſand perſons, and thoſe had every man his owne cup of gold to drinke out of, and at each courſe and change of meats that came in, new plate was ſerved up ſtill to the bourd. Theſe gueſts of his fared ſo highly, that a man would have ſaid they had beene franke-fed. But how far ſhort was this mightie and ſumptuous prince thinke yee (for I will ſay no more now of kings) in compariſon of one *Pythius* a Bithynian, who ſent unto *Darius* the king a preſent of a Plane-tree, all entier of beaten gold, and withall, that famous gold Vine, ſo much renowmed by all writers: feaſted the whole armie of that mightie monarch, & thoſe were *788000 men: promiſing over and above five months pay for them all, and corne for ſo long to ſerve the whole campe, if of five ſonnes that he had of his owne, the king would ſpare him but one to beare him companie in his old age, and not preſt him for to ſerve in the wars. Certes, a man that heareth thus much of this *Pythius*, might compare him with that rich *Cræſus* king of Lydia. But what follie and madneſſe in the devils name is this, to hunger & thirſt ſo much in this life after that, which either is common to baſe ſlaves and may fall unto them, or els whereof kings themſelves can find no end? And thus much of gathering good and heaping riches together.

*Vide Eudæum.

To come now to the ſcattering thereof, I find in the Chronicles, That in the yeare wherein *Sp. Poſthumius* and *Qu. Martius* were Conſuls, they began at Rome to make largeſſes, and to fling money abroad to the common people. And at that time ſuch plentie of coine there was ſtirring at Rome, that the citie beſtowed by a generall contribution upon *Lu. Scipio*, as much as bare out his charges in exhibiting the ſolemne games and plaies unto the people. As for that purſe which was made for the funerals of *Agrippa Menenius*, wherein every man put his ſextant, *i.* the ſixt part of an As, I take it to have beene no largeſſe, but a benevolence to teſtifie how the people honoured *Agrippina*, and a ſupplie of meere neceſſitie, conſidering how poore the man died.

Chap. xi.

Of the ſuperfluitie and frugalitie both, of men in times paſt, touching plate and ſilver veſſell. Of beds and tables of Silver. Alſo when there were deviſed chargers and platters of Silver to be made of huge capacitie beyond all meaſure.

THe world is given to ſuch inconſtancie as touching ſilver plate, that a wonder it is to ſee the nature of men how variable they bee in the faſhion and making of ſuch veſſell: for no workmanſhip will pleaſe them long. One while we muſt have our plate out of *Furnius* his ſhop, another while wee will bee furniſhed from *Clodius*: and againe in a new fit, none will content us but of *Gratius* his making (for our cupbourds of plate and tables, forſooth, muſt beare the name of ſuch and ſuch Goldſmiths ſhops.) Moreover, when the toy takes us in the head, all our delight is in chaſed and embоſſed plate; or elſe ſo carved, engraven, and deepe cut in, as it is rough againe in the hand, wrought in imagerie or floure-worke, as if the painter had drawne them. And now adaies we are growne to this paſſe, that our diſhes are ſet upon the table, borne up with feet and ſupporters to ſuſtaine the viands and meat therein, but in any wiſe their ſides muſt bee pared very neare; for herein I may tell you lieth a great matter, and the more that the ſides and edges hath loſt by the file, the richer is the plate eſteemed to be.

As touching the veſſell ſerving in the kitchin: did *Calvus* the noble Oratour complaine in his time that it was of ſilver? Why, wee in theſe dayes doe more than ſo, for wee have deviſed that our coaches ſhould bee all ſilver, and thoſe curiouſly wrought and engraven. And within the remembrance of man, even in this age, *Poppæa* the Empreſſe, wife to *Nero* the Emperour, was knowne to cauſe her Ferrers ordinarily to ſhoe her coach-horſes and other palfreis for her ſaddle (ſuch eſpecially as ſhee ſet ſtore by, and counted more daintie than the reſt) with cleane gold. To what exceſſe and prodigalitie is the world now growne unto? *Scipio Africanus* the ſecond of that name when he died, left no more unto his heire in ſilver plate and coine than two and thirtie pound weight: and yet this worthie knight, when he rode in triumph for the conqueſt

A queſt of the Carthaginians ſhewed in that ſolemne pompe, and brought into the chamber of Rome as much treaſure as amounted to *foure thouſand foure hundred and ſeventie pounds weight of ſilver, a thouſand times told. This was all the treaſure in ſilver that the whole ſtate of Carthage was able to make in thoſe daies; Carthage (I ſay) that great and proud cittie which pretended a title to the Empire of the world, and maintained the ſame againſt Rome: and yet ſee! in this age there is as much laid out in our cupbourds of plate, and furniture of our tables. The ſame *Africanus* afterwards, upon the winning and finall ruine of Numantia, gave among his ſouldiors in a triumph, 17000 pound weight of ſilver. O brave ſouldiors, and worthie ſo noble a captaine, who ſtood contented with ſuch a reward. A brother of this *Scipio*, ſurnamed *Allobrogius*, was the firſt knowne to have in plate, one thouſand pound weight: but *Livius Druſus*,
B whiles he was but Tribune or Provoſt of the comminaltie, had in ſilver veſſell as much as weighed eleven thouſand pounds. Now if I ſhould tell you that the Romane Cenſors upon a time diſgraced, yea and degraded an ancient captain and one who in his time had rode in triumph, only for that he had in plate five pound weight, it would bee taken in theſe daies for a meere tale and vaine fable: as alſo that *Catus Aælius* in his Conſulſhip, was found ſitting at dinner ſerved with earthen veſſell of potters worke, when the Embaſſadors of the Ætolians came unto him: that he refuſed alſo ſilver plate preſented unto him for the furniture of his bourd, and to his dying day had never in ſilver more than two drinking cups, which *Lucius Paulus* his wives father beſtowed upon him after the deſeiture of K. *Perſeus*, in regard of his valiant ſervice; we hold it now for no leſſe than an untruth & incredible. And here I call to mind a merry conceited ſpeech that I have
C read in the Chronicles, of certaine Carthaginian Embaſſadours, who ſaid, That no men in the world had more good fellowſhip in their houſes, and lived more friendly togither, than the Romans: for why? when they feaſted one another (ſay they) the ſame *ſilver plate went round about amongſt them all from one to another without chaunge. But howſoever this frugalitie whereof I ſpeake, may ſeeme ſtraunge and fabulous to the world wherein wee live, certes we all know this to be true and no fable, that *Pompeius Paulinus* (the ſonne of a Romane knight or man of armes borne at Arles) was not only baniſhed out of the country and nation where his father was born, but confined alſo to the marches of moſt ſavage and barbarous people and expoſed to their cruD eltie, onely for this, That he had in his campe (to the evill example of the armie) as much ſilver plate as weighed twelve pounds. But long agoe it is ſince the faſhion came up at Rome, that our dames had their beds covered all over with ſilver, yea & ſome dining roums with tables laid with the ſame: which invention came firſt (as it is reported) from *Carvilius Pollio*, a gentleman or knight of Rome, who deviſed to garniſh his bourds with ſilver, not covering them full & whole throughout with plates thereof, nor after the manner of Deliacke workemanſhip, but onely by parcels, and according to the Punicke or Carthaginian faſhion. The ſame *Pollio* made beds and tables of gold: but not long after, thoſe ſilver beds and bourds came to the order of thoſe in the Iſle Delos. But all this ſumptuoſitie was puniſhed ſufficiently and expiat by the civile warre of *Sylla*: for a little before thoſe troubles, this exceſſe and theſe ſuperfluities came up: as alſo about the ſame time, men fell to make great chargers and platters of ſilver, weighing one hundred pound a peece; of which there were at Rome (as it is well knowne) when the ſaid warre began, to
E the number of five hundred and above: which was the cauſe that many a man fell into the daunger of proſcription and confiſcation, for that their rich plate ſet their enemies teeth on water; who for the love and deſire thereof, practiſed by all cunning means their utter undoing. Certes our hiſtorians heretofore, who attributed this curſed and unhappie civill warre betweene *Sylla* and *Marius*, unto ſuch ſuperfluities and vices of thoſe times which reigned ſo rife, might be aſhamed and bluſh to ſay ſo; for our age hath been more hardie, and hath proceeded farther without any ſuch feare of puniſhment from above. No longer ſince, than in the daies of *Claudius* the Emperor, *Druſillanus* a ſlave of his ſurnamed *Rotundus*, (the Seneſchol or Treaſurer under him in hiigh Spaine) had a ſilver charger of five hundred pound weight (for the working whereof, there was a forge framed beforehand of ſet purpoſe:) and the ſame was accompanied and at-
F tended with eight more of a ſmaller ſize, weighing fiftie pound apeece. Now would I gladly know (if it might pleaſe you) how many of his fellows (ſuch ſlaves I meane as himſelfe) there muſt be to carie the ſaid veſſell and ſerve it up to the table? or what gueſts they mought be who were to be ſerved with ſuch huge plate? *Cornelius Nepos* writeth, That before the victorie of the ſaid *Sylla* who defeited *Marius*, two dining tables and no more there were throughout Rome, all of ſilver.

* *Quater millies, quadringena ſeptuagena millia pondo*: which is foure millions of milliõs foure hundred & 70 thouſand pound weight. An incredible ſum, conſidering that which preſently followeth: and therefore I ſuppoſe this place in *Plinie* is corrupted.

*This was ſpoken by way of jeaſt, and ſeemes ſo: for that all their veſſell being plate of potters clay & no better, ſeemed alwaies the ſame: whereas in ſilver plate, men were delighted with diverſitie of workmanſhip, and varietie of faſhion.

Feneſtella ſaith, that in his time (and hee died the laſt yeere of the reigne of *Tyberius Cæſar* the Emperor) men began at Rome to beſtow ſilver upon their cupbords and ſide liverie tables: and even then alſo (by his ſaying) tortoiſe worke came in requeſt and was much uſed. Howbeit, ſomwhat before his daies, he writeth, that thoſe cupbourds were of wood, round and ſolid of one entire peece, and not much bigger than the tables whereupon men eat their meat: but when hee was a young boy, they were foure ſquare, and of many peeces joyned togither; and then they began to be covered over with thin bourds or painels, either of maple or citron wood. Soone after, they fell to lay ſilver plates upon them at the corners onely, and along the joynts where the planks were ſet togither: but by the time that hee was come to bee a well growne young man, they were at their drinking mazers or round-bottome diſhes like balances, whereupon they were called Stateræ: alſo at thoſe platters, which in old time were named Magides. Howbeit, men reſted not contented to have furniſhed themſelves with plentie of ſilver in their plaine plate and about their houſes, unleſſe the curious workmanſhip alſo thereof were more coſtly than the mettall and matter it ſelfe. But leaſt this ſuperfluitie ſhould bee imputed unto us in theſe daies, be it knowne, that ſuch curioſitie was crept into the world long agoe: for *C. Gracchus* had in the furniture of his houſe, certaine veſſels of ſilver called Dolphins, which coſt him at the goldſmiths hand 5000 ſeſterces a pound: an exceeding price for the faſhion & workemanſhip, conſidering *L. Craſſus* the orator had two pots artificially engraven by the hand of *Mentor* that cunning workman, the faſhion and making whereof coſt* 100 ſeſterces a pound: and yet he confeſſed and proteſted, that he was abaſhed to uſe them, and durſt not for ſhame bring them abroad. Moreover, knowne it is, that he had in his cabinet peeces of plate, which to be bought and ſold were woorth everie pound 6000 ſeſterces. But in breefe, the conqueſt and reducing of Aſia under our Empire, was the firſt occaſion that brought into Italy ſuch waſtfull exceſſe: for *L. Scipio* ſhewed in triumph of ſilver plate, entailed & engraven, 400 thouſand and 50 pounds weight, beſides veſſels of gold amounting to the weight of 100 thouſand pound: And this was in the yeere from the foundation of Rome, 565. But the free * donation and beſtowing of the ſaid Aſia upon the cittie of Rome, (which fell unto the Romans by the death of king *Attalus*, who in his laſt will and teſtament ordained them his full heires) did moſt hurt unto our ſtate: and this ſucceſſion which our auncients enjoyed by vertue of that gift, did greater damage to the integritie of manners, & brought more corruption into our citie, than the former victory atchieved by force of arms: for from that time forward men grew to bee ſhameleſſe, and without regard of modeſtie everie mans fingers itched to be tempering with the treaſure of K. *Attalus*, and to buy the ſame at any price, ſold in open portſale to them that would give moſt: which hapned in the 626 yeer after the foundation of the citie: for in 56 yeers (which was the meane ſpace betweene the foreſaid ſubduing of Aſia and this feoffment of K. *Attalus*) our citie was well nuzzled and trained not only in the admiration of ſuch puiſſant forrein kings & princes, but alſo in ſome affectionat love to their wealth and riches. About which middle time between, and namely in the 608 yeere, reckoning from the firſt founding of Rome, when Achaia was likewiſe brought under our obedience and ſubjection, this victorie alſo was a mightie means to bring us alſo out of all good order, and to ſet us forward to embrace ſuperfluities and to overthrow all honeſtie & vertue: for now were brought in the ſtately ſtatues & proud painted tables, that we ſhould want no enticing delights, but that all the pride and pleaſure of the world might be found at Rome. Finally, the ruin of Carthage, was the riſing of ſuperfluitie with us, as if the Deſtinies had ſo appointed, that at one and the ſame time we ſhould have both will to embrace vice, and alſo power & libertie withall to perform ſin: ſo that in regard of our times and the enormities therof, we may juſtifie, yea and honour any of our anceſtors who ſeemed before to offend in this behalfe. For, as it is ſaid, *C. Marius* after he had defeited the Cymbrians, contented himſelfe to drinke in a wooden godet and tankerd, after the example of father *Bacchus*: *C. Marius* I ſay, who of a good husbandman in the countrey about Arpinum, and of a common and ordinarie ſoldior, came to be a brave captaine and commaunder in the field.

* *Centum ſeſtertis*: a ſmall matter to the former, and about 15 or 16 *ſh.* of our mony. If you read *Seſtertium centum*, or *Centum ſeſtertijs*, in the neuter gender, it is a thouſād times as much, and that were as monſtrous.

* *Donata*, not *Domata*, according to *Budæus*

Chap. xii.

Of ſtatues and images of ſilver: of the workmanſhip in graving ſilver, and of other things pertinent thereto.

MEn commonly have thought, that the firſt ſtatues of ſilver ſeene in Rome, were made in the honour of the Emperour *Auguſtus*, by way of courting and flatterie to win his grace and

A and savour, as those times did require: but it is altogither untrue; for before his daies, wee find that *Pompey* the Great when he rode in triumph, caused the silver statue of king *Pharnaces* (the first [of that name] that ever reigned in the realme of Pontus) to be carried in a solemne shew: like as the image also of *Mithridates* his father; besides chariots as well of gold as of silver.

Moreover, it falleth out sometimes, that silver is used instead of gold also upon some urgent cause and just occasion: as we may see by our proud and sumptuous dames, that are but commoners and artizans wives, who are forced to make themselves carquans and such ornaments for their shoes, of silver, because the rigour of the statute provided in that case, will not permit them to weare the same of gold. And I my selfe, as I remember, have seene *Aurelius Fuscus* (a gentle-
B man of Rome, who being put beside his place, and having lost the dignitie of a man of arms, by reason of a notable calumniation framed against him, when as young gentlemens sonnes used to accompanie him because he had the name of a brave souldior) weare his rings, of silver. But to what purpose doe I collect these examples, seeing how our souldiours make no reckoning of yvorie, but the hilts of their swords and the hafts of their daggers, bee garnished with silver, damasked, and engraven; their scabberds and sheaths be set out with silver chapes, and their sword girdles, hangers, and bawdricks, gingle againe with thin plates of silver. And doe we not see how our young boyes are * kept in and restrained with silver, during the time that they be under mans age? how our fine dames use to wash and bath in silver, disdaining and setting light by any other bathing-vessels in the bains? insomuch as the same mettall and matter which we are served with at the table, is employed also in shamefull and uncleanly uses. Oh that *Fabricius* were alive now
C againe to behold these things! If hee saw our women bathing togither with men in one and the same bains, and those paved (as it were) under foot with silver so smooth and slipperie that they cannot hold their feet: *Fabricius* I say, who forbad expressely, that any warriours and Generall captains should have in plate more than one drinking boll or goblet, and a saltsellar: If he saw silver (which was woont to be given in presents and rewards to brave men and valiant captains) thus to be melted and broken to serve for these purposes, what would he say? but, What a world is this! wee passe not for *Fabricius*, nay we are ashamed of him and his frugalitie.

But to leave these abuses and complaints: one thing I woonder much at, that among so manie excellent artizans as have beene, there is not one who tooke any pleasure to grave in gold, nor became renowmed thereby; whereas many are famous for their workemanship in
D silver: howbeit *Mentor* (of whome I spake erewhile) excelled them all in this kind: and yet I doe not find, that ever he made in all, above eight peeces that were curiously and exquisitly wrought, and those (as it is said) bee all lost. And no marveile; for why? the temple of *Diana* at Ephesus lieth along: the Capitoll of Rome likewise, and all within it, hath perished by fire. Howbeit, *Varro* hath left in writing, That among his antiquities, one brasen image he had of *Mentors* handworke. Next to him, the world had *Acragas*, *Boethus*, and *Mys*, in great admiration for their excellent skill: and at this day there be extant, peeces of all their workmanship, to be seen in the Isle of the Rhodians: for in the temple of *Minerva* which is at Lindus a citie in that Island, there is one statue of the said goddesse, of *Boethus* his making: within the temple of god *Bacchus* in the verie citie it selfe of Rhodes, there are certaine cups wrought by *Acragas*, wherein bee engraven
E the religious Priestesses called Bacchæ, and the Centaurs. Within the same Church, are the pourtraicts of *Silenus*, and the prettie *Cupids*, expressed lively in imagerie, by *Mys*. Moreover, *Acragas* pourtraied the resemblance of chaces or hunting, in certaine pots, most artificially; for which he became verie famous. After these, there are to bee raunged in another degree, *Calamis* and *Antipater*; togither with *Stratonicus*, who wrought within a broad-mouthed cup, one of the Satyres sound asleepe; but with such dexteritie and so lively, that hee is judged and said to have couched and fitted him to the cup, rather than barely engraven him. Then followeth *Tauriscus* of Cyzicum: semblably *Aristus* and *Eunicus*, both Mityleneans, are highly commended: as also *Hecatæus* and *Praxiteles*, who flourished about the time of *Pompey* the Great. *Posidonius* also of Ephesus, and *Ledus* the Stratiat, who was in great name for engraving of battails and ar-
F med men at the point to joyne skirmish. Likewise *Zopirus*, who made two singular cups; in the one, hee represented the honourable court of the Areopagites; in the other, the triall and judgement of *Orestes*: which were esteemed woorth twelve talents. In another age lived *Pytheas*, a singular artificer, whose workemanship was so rare and exquisit, that everie two ounces of his silver plate, was sold commonly for twentie thousand Sesterces: and verely a broad goblet or stan-

* I could set this downe more plainly: but in some respect of chast minds & ears I am willing enough to leave it as obscure in English, as I found it in Latine.

ding peece there was of his making, with a deuiſe appendant to it, for to be ſet too and taken off by a vice, and the ſame reſembled *Vlixes* and *Diomedes*, ſtealing the Palladium out of the temple of *Minerua* in Troy. The ſame workeman deuiſed to ſet into little cups, prettie images or mannikins reſembling cookes, which he tearmed Magiriſcia, but ſo finely and delicatly wrought they were, that the patterns of them could not be taken out in any mould, without hurting and ſpoiling; ſo ſubiect were they to any outward injuries in the handling. Furthermore, *Teucer* was famous in his time, for his dexteritie and light hand in ſhallow embоſſing. Well, in as great requeſt as theſe artificers were in times paſt, yet this cunning decaied all on a ſodaine, and grew ſo farre out of uſe, that nothing now commendeth ſuch peeces of worke, but onely antiquitie: in which regard, how neare ſoever they bee worne with continuall handling, in ſo much as the ſhapes and proportions of the imagerie engraven cannot be diſcerned, yet great ſtore is ſet by any ſuch antique plate whereſoever it is to be had. G H

Over and beſides, it is to be noted, that ſilver will ruſt in medicinable waters, ſuch as ſtand upon ſome eſpeciall mine; yea the ſalt aire breathing from them, is able to infect it: as we may ſee in the mediterranean parts of Spaine far remote from the ſea.

Alſo, in mines of gold and ſilver, there are ingendred certaine minerall colours ſerving for painters; to wit, * Sil and Azur. As for Sil, to ſpeake properly, it is a kind of muddie ſlime: the beſt of this kind is called Atticum: and everie pound of it is woorth two and thirtie deniers. The next in goodneſſe, is hard as ſtone or marble, and carrieth hardly halfe the price of the other named Atticum. There is a third ſort, of a faſt and compact ſubſtance, which becauſe it is brought out of the Iſland Scyros, ſome call Scyricum: and yet of late verely, wee have it out of Achaia alſo, and this is the Sil that painters uſe for their ſhadows: this is ſold after two ſeſterces the pound. As for the Sil which commeth out of Fraunce, called the Bright Sil, it is ſold in everie pound two aſſes leſſe than that of Achaia. This Sil, and the firſt called Atticum, painters uſe to give a luſtre and light withall: but the ſecond kind, which ſtandeth upon marble, is not emploied but in tablements and chapters of pillers, for that the marble grit within it, doth withſtand the bitterneſſe of the lime. This Sil is digged likewiſe out of certaine hills not paſt twentie miles from the cittie of Rome: afterwards, they burne it, and by that means doe ſophiſticat and ſell it for the faſt or flat kind named Preſſum: but that it is not true & naturall, but calcined, appeareth evidently by the bitterneſſe that it hath, and for that it is reſolved into powder. I K

* i. Ochre.

Chap. xiii.

* i. Ochre.
* Azur.

Of * Sil, * Cæruleum, Neſtorianum, and Cælum. Alſo, that all theſe kinds keepe not the ſame price everie yeere.

Polygnotus and *Mycon* were the firſt painters who wrought with Sil or Ochre, but they uſed onely that of Athens in their pictures. The age enſuing, emploied it much in giving light unto their colours, but that of Scyros and Lydia for ſhadowes. As for the Lydian ochre, it was commonly bought at Sardis, the capitall cittie of Lydia, but now it is growne out of all remembrance.

As touching Cæruleum or Azur, it is a certaine ſandie grit or powder: of which, in old time there were knowne three kinds: to wit, the Ægyptian, moſt commended above the reſt: the Scythian, which is eaſie to bee diſſolved and tempered, and in the grinding turneth into foure colours; namely, the Azure, which is of a pallet colour, called therefore the whiter; the blacker Azur, of a deeper blew; there is the Azur alſo of a groſſer ſubſtance; and the fourth of a finer. The Cyprian Azur is preferred before that of Scythia. Over and above theſe Azurs beforenamed, we have ſome from Puteoli and Spaine, where they bee artificiall, and they have taken to making it, of a kind of ſand. All the ſorts of theſe Azurs, receive firſt a dye, and are boiled with a certaine hearbe appropriat to it, called Oad, the colour and juice whereof Azur is apt to drinke in and receive. As for all the preparation and making of it otherwiſe, it is the ſame that belongeth to Chryſocolla or Borax. Of Azur there is made that powder which we call in Latine Lomentum, for which purpoſe it muſt bee firſt punned, pulverized, and waſhed; and this is whiter indeed than the Azur it ſelfe: ſold it is after three and twentie deniers the pound, whereas Azur may be bought for eighteene. Herewith they uſe to paint walls that bee overcaſt with plaſtres, for line it will not abide. Of late daies there is a kind of Azur growne into requeſt, called Neſtoria- L M

num,

A num, taking that name of him who first devised it: made it is of the lightest part of the Ægyptian Azur, and it costeth fortie deniers the pound. Of the same use also is that Azur of Purcoli, save onely in windows; and this some call Cœlon. It is not long, since another kind of Azur or blew named Indico, began to be brought over unto us out of India, which is prized at seventeen deniers the pound. It serveth painters well for the lines called Incisuræ, that is to say, for to devide shadows from lights in their works. To conclude, there is another kind of Lomentum or blew powder of the baseſt account of all other; some call it Tritum, and it is not esteemed worth above five asses the pound.

But to trie the right and perfect Azur indeed, the best experiment is to see whether it will flame upon a burning cole. As for the false and sophisticat Azur, it is thus made: They take the
B floures of violets dried, and boile them in water: the juice they presse foorth through a linnen cloth, and mix the same with the chaulkie earth called Eretria, untill such time as it bee well incorporat with it.

To proceed unto the medicinable vertues of Azur: It is holden to be a great cleanser, and therefore it mundifieth ulcers: in which regard, it entreth into plastres: as also into potentiall cauteries. As touching Ochre or Sil, it is exceeding hard to bee reduced into powder: and this also serveth in physicke; for it hath a mild kind of mordacitie: astringent it is besides and incarnative; in which respect, soveraigne to heale ulcers: but before that it will doe any good, it ought to be burnt and calcined upon an earthen pan.

To conclude with the prices of all those things named heretofore: howsoever hitherto I have
C set them downe, yet I am not ignorant, how they varie according to the place; yea and alter in manner everie yeere: And well I wot, that as shipping and navigation speeds well or ill, as the merchant buyeth cheape or deare, the price may rise and fall. Againe, it falleth out, that sometime one rich munger or other, buying up a commoditie, and bringing it wholly into his owne hands for to have the monopolie of it, raiseth the market, and enhaunceth the price: for I remember well, how in the daies of *Nero* late Emperour, all the spicers, druggers, and apothecaries, preferred a bill of complaint unto the Consuls, against one *Demetrius* a regrater. Yet notwithstanding, I thought it necessarie to put downe the prices of things as they are ordinarie valued at Rome one yeere with another, to shew in some sort (by a generall æstimat) the worth of such wares and commmodities
D whereof I have written.

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THE XXXIIII. BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

¶ The Proëme.

CHAP. I.

❧ The Mines of Brasse.

IT is now time to goe in hand with mines of Brasse, a mettall esteemed most of all other next to Gold and Silver, in regard of the uses about which it is emploied: nay, if I should say truly, preferred it is (especially that which is called the laton of Corinth) in divers respects before silver, yea & gold it selfe: for brasse (I may tell you) is of great authoritie in the campe, and carrieth no small stroke among souldiors in regard of their pay, which (as I have said before) was weighed them out in brasse: and hereupon their wages-money is usually called by the name of Æra militum. From this mettall likewise, the generall Receivers and Treasurers take their title of credit and place: for at Rome they be called Tribuni ærarij, as a man would say, the Tribunes or officers to the chamber of Brasse coine, that is indeed, of the Treasurie: hereof also is the Chamber of the citie or Treasurie it selfe, called Ærarium: finally, those that be deeply indebted to any man, are in Latine named Obærati, as it were charged and pressed with the heavie burden of brasse, *i.* debt. Moreover, I have shewed alreadie (for the greater credit and authoritie of this mettall) for how many yeers togither the people of Rome used no other money but brasen coine. And otherwise, as may appeare by ancient records and histories, the credit of brasse tooke root at the beginning, and hath been in authoritie ever since Rome was Rome: an evident proofe whereof wee have from K. *Numa*, who founded and erected a third societie or confraternitie of brasie-founders. As touching the ore or veine of brasse, digged it is out of the mine in manner aforesaid, but it is tried and brought to perfection by fire. Made also it is of the Chalamine stone, named otherwise Cadmia. The best mines of brasse that yeeld the excellent mettall, are now in Asia; howsoever in old time Campaine in Italie caried the name. And even at this day, the brasse digged out of the mines within the territorie of the Bergomats in the fartheſt part of Italie, is in great request: and as it is said, there are good mines thereof discovered lately in Germanie, a province under the Romane Empire.

CHAP. II.

❧ Divers kinds of Brasse: and namely, the Brasse of Corinth, of the Isles of Delos and Aegina.

IN the Island of Cyprus, where first were found mines of brasse, the same is made of another stone also besides Cadmia, which they name Chalcitis: but this * Cyprian brasie fell soon to beare a low price, by reason of a better kind which other countries did yeeld; and principally the laton called Orichalcum, which for a long time was counted the best and held in greatest admiration. Howbeit, this kind of brasse hath not been gotten for these many yeers, as if the earth were

* *i.* Copper.

A were not in heart, and had given over bearing of it. Next to this Aurichalcum, the moſt reckoning was made of the braſſe Salluſtianum, within the tract or quarter of the Centrones among the Alpes: neither held theſe mines out any long time; but after it, ſucceeded the Livian braſſe, diſcovered in Fraunce. Theſe two kinds laſt mentioned, take name both of the lords and maſters of the mines wherein they were digged: the former of one *Salluſtius*, a great friend and fovant of *Auguſtus Cæſar* the Emperour: the other of the Empreſſe *Livia* his wife: and this mine alſo quickly failed. And verely of this Livian braſſe very little or none there is to be had. But now adaies all the name goes of the Marian braſſe, which alſo is called Cordubenſe. And to ſay a truth ſetting aſide the abovenamed Livian braſſe, there is not any will take the yellow tincture of the Cadmia or Calamine ſtone better, or commeth ſo near in goodneſſe to the latton Orichalcum;
B as if a man would ſay that a peece of coine ſtamped of it, were a ſeſterce, or at leaſtwiſe a double As, to the Cyprian peece, which is but a ſingle As. And thus much concerning the degrees in goodneſſe and credit, of thoſe kinds of braſſe which be naturall.

* As if he would ſay, this mettal is ſo much better thã the Cyprian braſſe and copper, as the Seſterce and Dupondius, is of more value than As: i. duple, or duple and halfe.

There be other ſorts of braſſe mettall, which ſtand upon an artificiall mixture and temperature, whereof I purpoſe to write in more ample manner in place convenient, after I have ſhewed above all other things the excellencie of this mettall in generalitie, thus tempered. In old time there was a mixt mettall made of braſſe, gold, and ſilver, melted and confuſed all together, wherof were made ſingular peeces of worke: and albeit the mettall was rich and precious, yet evermore the workmanſhip was the dearer and went beyond it. But now, it is hard to ſay, whether is worſe of the twain, the matter, or the art that is ſeene in it? But certes, I cannot but marvell much
C how it commeth to paſſe, That theſe braſen workes, having alwaies beene from time to time ſo deare, and growing ſo infinitly as they doe ſtill in price to be bought & ſold, yet the magnificence and credit of this art is ſo much decaied and utterly gone? But I take this verely to bee the cauſe, that in times paſt artificers wrought for to win glory and fame; and now, as all things els, for gain and lucre onely. Certes, in old time the feat of caſting mettall was counted ſo magnificent, that the Poëts aſcribed it to ſome of the principall gods, as a myſterie beſeeming their divine workemanſhip; inſomuch, as the great lords and noble princes of the world ſought to win an immortall name by this meanes: and yet I ſay for all that, the manner of tempering and caſting this precious Maſcellin, this compound mettall I meane of gold, ſilver, and braſſe, is ſo farre growne out of practiſe and knowledge, that for theſe many yeares paſt Fortune her ſelfe hath had no power
D either to retaine or to reſtore the auncient art belonging thereto. But ſetting aſide the glorious Maſcellin of old time, the Corinthian braſſe mettall was moſt highly commended: And the ſame mixture happened even by meere chaunce and fortune, when the cittie Corinth was woon, ſacked and burnt to the ground: and wonderfull it is how the minds of many great men was affected to this compound mettall, and how they ſtood upon the having therof, inſomuch as (by report) there was no other cauſe in the world why *Verres*, whom *Cicero* had cauſed to bee condemned, was together with him proſcribed, outlawed, and baniſhed by *Antonie*, but onely this, For that he vaunted that he had as goodly veſſels and peeces of Corinth mettall as himſelfe, and would not part with any of them to *Antonie*. Howbeit in my conceit, the moſt part of theſe men who delight thus in this Corinth Maſcellin, in a certaine ſingularitie by themſelves, becauſe they would ſeem
E to know more than their fellowes, make ſemblance rather of a ſpeciall inſight and skill that they have therein, than know indeed any thing by it of ſuch exquiſit ſtuffe. And this will I ſhew and declare unto you in few words: The citie of Corinth was woon and deſtroied in the 156 Olympias, and the third yeare thereof, which fell out to be in the 608 yeare by our computation at Rome: now long before this time, thoſe great maſters and imageurs, ſo famous for mettall-founding and caſting of images, were dead & gone; and yet all the peeces of their making, theſe men forſooth at this day will needs have to be of the Corinthian medley, and ſo they call them. And therefore to diſprove this erronious opinion of theirs, I purpoſe as I proceed in this my diſcourſe, to range all the notable artificers that antiquitie hath knowne in this kind, according to the ſeverall ages wherein they lived and flouriſhed in the world. For eaſie it will be to calculat and collect the years
F from the foundation of our citie, by the former compariſon of them with the Olympiads. All the veſſels then which our delicats have, thoſe I meane that would ſeeme to be more fine in their houſes than their neighbours, are onely of the Corinth mettall and no better, which they caſt partly into pots and pans and ſuch like kitchin veſſell for to ſeeth meat in: partly into candleſticks, chafers, chamber pots, and ſuch like homely and baſe veſſels, without any regard of cleaneneſſe

and

and neat ſervice. But this Corinthian mettall may be reduced well into three principall kinds, to G
wit, the white, which commeth neareſt in brightneſſe to ſilver, as ſtanding moſt indeed upon the
mixture of ſilver: the ſecond yellowiſh, according to the nature and colour of gold, which bea-
reth the cheefe ſtroke in it: and a third of an equall medley and temperature, wherein a man ſhall
not perceive any one mettall predominant. Over and beſides, theſe three ſorts of Corinthian
braſſe, there is another kind of Maſcellin; as touching the mixture whereof preciſely, we are not
able to yeeld any reaſon: for although there be found images and ſtatues thereof made, wherein
we may ſee the handie worke of man, yet it ſhould ſeeme that fortune in ſome ſort hath given the
temperature thereto: and that precious and daintie colour that it hath, is a deepe red, much re-
ſembling that of the liver, and therefore they call it commonly Hepatizon. Short it commeth far
off the Corinthian mettall, but out-goeth a great way the braſſe either of Ægina or Delos; which H
two mettals for a long time were thought to be the cheefe. And in very truth, for auncient glorie
and name the Deliake braſſe may challenge the firſt place: for thither, as to a mart or faire, there
was great reſort of chapmen from all parts of the world, & eſpecially of thoſe artificers who were
curious in making of table feet, treſtles, and bedſteeds: And indeed the fineſt workmanſhip at firſt
was ſeene herein, and thereby artificers came to be ennobled. But in proceſſe of time they went
farther, even to caſt the images of gods, the perſonages alſo of men for ſtatues, yea, and the ſolid
formes and pourtraits of beaſts and other ſuch living creatures. After this braſſe of Delos, the
moſt account was made of that which came from Ægina: An Iſland this is without any mine at
all of braſſe in it, howbeit, much renowned for the excellent mettall-founders therein, in regard
of the ſingular temperature that they gave unto their braſſe. The braſen Ox which ſtandeth in I
the beaſt market at Rome was brought from thence. And this may ſerve for a paterne of the Æ-
gineticke braſſe: but the image of *Iupiter*, erected within the chappell of *Iupiter*, ſurnamed Thun-
dring, in the Capitoll, is the true patterne, teſtifying what kind of braſſe that of Delos was. And,
as *Myron* was wont to caſt the mettall of Ægina in all his workes, ſo *Polycletus* uſed ordinarily
that of Delos for his purpoſe; and theſe two were rare Imageurs, living at one time, and prenti-
ſes at the art together: but they endevoured to ſurpaſſe one the other, in diverſe mettals which
they occupied.

Chap. iii.

Of candleſtickes and ornaments belonging to temples, made of Braſſe. K

IN old time the Iſland Ægina was in eſpeciall name for the workmanſhip only of the branches,
ſockets, and heads of candleſtickes; like as Tarentum, for the ſhanke, ſhaft, & bodie ſupporting
the ſame: and therefore that candleſtick was counted rich indeed, when both theſe places ſee-
med to concurre unto the making & workmanſhip therof. For ſuch a candleſticke ſome have not
been aſhamed to give as much money as the ſalarie and yearely penſion of a Tribune militarie or
Which was a talét, or 50000 ſeſterces. Colonell, commeth unto: and yet you ſee, an implement or moveable it is, that hath but a vile
and baſe name, for called it is in Latine Candelabrum, of ſticking a candle in it. But will you know
who was ſo fooliſh as to beſtow ſo much upon a candleſticke, and what a tale belongeth there-
unto, for to amend the hard bargain? thus ſtood the caſe: It was a jollie dame in Rome, named *Ge-* L
gania, who made this wiſe match. And when ſhee had ſo done, ſhee muſt needs forſooth make a
feaſt for to ſhew this candleſticke to her gueſts, which coſt her fiftie thouſand ſeſterces. Now the
founder or braſier that ſold it her, was miſhapen and bunch-backt. And order was taken by the
* *Cleſippus fuſor, gibber, &c.* not *Fullo.* commaundement of **Cleſippus*, a publick crier of Rome, that he ſhould in the middeſt of ſupper
be brought into the place ſtarke naked as ever he was borne (and as foule and illfavoured a fellow
Who as it ſhould ſeeme, was one of her gueſts, & knew how to play his part well ynough. he was otherwiſe as a man ſhould lightly ſee) under a colour to make ſport and to ſet the compa-
nie a laughing, but indeed to mocke *Gegania* the miſtreſſe of the houſe. But what followed ther-
upon? The woman caſt a fanſie to him by and by, and in that heat of love, or luſt rather, admitted
him anon to her bed, and after ſet him into her will, and made him her heire. This crookebackt
ſquire ſeeing himſelfe exceedingly enriched by this double bargain, adored the ſaid candleſticke M
no leſſe than a god, as the onely cauſe of his riſing and all the wealth he had: And thus by his oc-
caſion, one tale more goeth currant abroad in the world, of Corinthian veſſels. And yet after-
wards (as it were to puniſh his miſtreſſe for that light behaviour of hers) hee cauſed a ſtately and
magnificent ſepulchre to be made for her, whereby the infamie and ſhame of *Gegania* might bee

eter-

A eternized and continue freſh in remembrance with all poſteritie. But to return againe unto Corinthian braſſe and the veſſels made thereof, although it bee well knowne, that there are no candleſtickes indeed made of that Maſcellin, yet there goeth a great name of them, as if they above all other things were certainely caſt of that mettall: and the reaſon is, becauſe that *Mummius* as in the heat of his victorie he ſacked and deſtroied Corinth, ſo withall he diſperſed the braſſe by parcels and peecemeale, and ſent it away into many other townes and cities of Greece.

Moreover, this is to be noted, That in old time it was an ordinarie thing to make of braſſe, the ſides, lintels, ſils, and leaves of great dores belonging unto temples. I read alſo in Chronicles, That *Cn. Octavius*, who defeated king *Perſeus* in fight at ſea, and rode in triumph for that navall victorie, cauſed the double gallerie, which ſtandeth neare unto the cirque of *Flaminius*, to be ere-
B cted; which was called the Corinthian gallerie, for that the chapters of the pillers were of braſſe. Furthermore, the Annales do teſtifie, that it was thought good, That the rouſe of the chappell of *Veſta* ſhould be alwaies covered over with braſſe, after the manner of Saracoſſian worke. Likewiſe *M. Agrippa* made all the chapters of the pillars, ſtanding in the temple *Pantheon*, of Syracuſian braſſe, which remaine at this day to be ſeene. And not onely publicke places and buildings were thus beautified and adorned, but great mens privat houſes alſo were enriched with this mettall: For it appeareth upon record, That *Sp. Carvilius*, one of the treaſurers of Rome, among other criminall imputations that he objected unto *Camillus*, challenged him for this, That the dores of his dwelling houſe were plated and garniſhed with braſſe and copper. Moreover, as *L. Piſo* reporteth in his Chronicle, *Cneus Manlius* after his conqueſt of Aſia, was the firſt that in the triumph
C wherein hee rode in the yeare after the foundation of Rome 568, hee made ſhew of three-ſided tables, cup-bourds, and bourds, ſupported by one foot all of braſſe. And *Valerius Antias* verely doth write, That *L. Craſſus*, heire to that great Oratour *L. Craſſus*, made ſale of many ſuch braſen tables, which fell unto him by right of inheritance. Semblably, I find in the hiſtories, That in old time they were wont to make many large baſons, ſupported with a frame of three feet, knowne by the name of Delphicke baſons, for that they were commonly dedicated unto *Apollo*, the patrone or god of Delphos, for to receive the gifts and oblations offered unto him. In thoſe daies alſo the lampe branches hanging aloft in churches, ſpreading out their armes abroad and carying lights like trees bearing fruit, were uſually made of braſſe: and ſuch a one is to be ſeene in the temple of *Apollo* within the Palatine hill at Rome: which being found by *Alexander* the great in the ſaccage
D of Thebes, the ſaid prince dedicated to the god *Apollo* at Cyme, a towne in Æolia. To conclude, this art of founding and caſting braſſe proceeded farther and paſſed on, untill it was commonly practiſed in making the idols and images of the gods.

Chap. iiii.

At what time the firſt braſen image was caſt at Rome. The firſt originall and beginning of ſtatues, and the honour that belonged to ſtatues. Alſo the divers kinds and faſhions of them.

E THe firſt image of braſſe that ever was made at Rome, I find to bee conſecrated unto *Ceres*: and raiſed it was out of the goods of *Sp. Caſſius*, who aſpiring to bee a king, was therefore ſlaine by his owne father. But this honour continued not long proper unto the gods, but paſſed from them unto the ſtatues of men alſo and their portraitures, and that after ſundry ſorts. In auncient time the manner was to verniſh their images and ſtatues of braſſe, with * Bitumen: more mervaile it is therfore, that afterwards men ſhould take ſuch pleaſure to guild them as they did. This invention, whether it came from Rome or no, I know not: but if it did, ſurely it was no auncient deviſe, nor of any long continuance there. Certes, the manner was not in old time to expreſſe the lively ſimilitude of men in braſſe, unleſſe they were ſuch worthy perſons as by ſome notable and famous acts deſerved to be immortalized, as namely, for winning the prizes at any of
F the foure ſacred and ſolemn games holden in Greece, & principally at thoſe of Olympia, where it was an ordinary thing to ſee the ſtatues of thoſe erected & dedicated, who had atcheeved any victory there. But in any caſe any one were ſo happie as to obtain victory at thoſe ſolemnities three ſeverall times, his ſtatue in braſſe was ſo lively & perfitly caſt, that it reſembled his perſon full and whole, according to the proportion of every member, joint, and muskle of the bodie, yea even to the

*or as ſome ſay, with a kind of Amber.

the haire of head and beard. And ſuch kind of complete images, the Greekes uſe to call Iconi- G
cæ, *i.* perſonages. The manner of the Athenians was to honour men of ſingular vertue and valor, by repreſenting their perſonages in braſſe: but I am not ſure whether thoſe Athenians were the firſt that brought up that manner, or no: true it is, that long ago they cauſed the ſtatues of *Harmodius* and *Ariſtogiton*, to be made of braſſe at the charges of the ſtate, and to be erected in publicke place, for that they had the courage and heart to kill *Piſiſtratus*, who tyrannized over them: and this fell out juſt in that very yeare wherein the kings alſo were depoſed at Rome, and expelled the citie for ever. And in proceſſe of time this manner was taken up in all parts of the world: ſo plauſible unto the nature of man, is the ambitious deſire to perpetuat their memorie by ſuch monuments, inſomuch as there is not a good town within our provinces, but they have begun al- H
readie to beautifie their market places with many ſuch ornaments of braſen ſtatues and images; together with titles, honours, and dignities engraven at the baſes or pied-ſtall thereof, for the better continuance of mens memoriall, that the poſteritie might be enformed by ſuch inſcriptions, as well as by their tombes and ſepulchres. And at length the ambition of men proceeded ſo far, that as well their privat houſes within as the baſe courts and porches without, were ſo beſet with images, that a man would take them for ſome publicke places within a cittie: and all this aroſe from the devote courteſie of vaſſales, in token of homage and honour done to thoſe their patrones and lords, whom they acknowledged to be the protectours and maintainers of their life and libertie.

Chap. v. I

Of braſen ſtatues in long robes, and divers other ſorts of Images. Whoſe ſtatues were firſt erected upon pillars. When they were ſet up firſt in publicke, and at the common charges. Finally, which were the firſt in Rome.

IN auncient time all the Images and Statues erected to the honour of any men, were in their gownes and robes. Men delighted alſo to have them otherwhiles all naked, reſting upon their ſpeares which they held in their hands. This patterne came from the Greekes, reſembling the manner of their young men, which in that ſort did exerciſe naked in their publick wreſtling places, thereupon called Gymaſia: and ſuch images are named Achilleæ. And verely, the Greekiſh K
faſhion it is, To hide no part of the bodie, but to ſhew all: wheras the Romans contrariwiſe (like ſouldiors and militarie men) uſed to make their ſtatues armed with a cuirace or breaſt-plate onely, leaving the reſt of the bodie diſcovered and bare. And *Iulius Cæſar* verely the Dictatour, was well content that his image ſhould bee ſet up in the Forum or common place at Rome, armed with an habargeon or coat of maile. As for ſuch ſtatues which repreſented in habit the prieſts of *Pan*, called *Luperci* (that is to ſay, all diſcovered but their privities) it is an invention new come up, and as lately deviſed as thoſe which be pourtraied in clokes or mantles. *Mancinus* appointed that his image ſhould be erected in that habit and manner, that is to ſay, bound and unarmed, as hee was delivered priſoner to the Numantines his enemies. As touching the ſtatue of *L. Actius*, a famous Poet, I will report unto you what writers have recorded; namely, That being himſelf a very L
little man and low of ſtature, he cauſed his image to be made exceeding big and tall, and ſo to be ſet up within the temple of the Muſes at Rome. As for the ſtatues repreſented on horſebacke; in great name and requeſt they were among the Romanes: but no doubt they had their precedent from the Greeks. At firſt they honoured ſuch horſemen only in this ſort, who had woon the price in the race at thoſe ſolemn and ſacred games which were held in Greece, and thoſe horſerunners they called Celeres: howbeit, afterwards the like honor obtained they, who had born themſelves beſt at the running of chariots, whether they were drawn with two horſes or four. And from hence came the manner with us of our valiant captaines and victorious generals, to have their ſtatues made riding triumphant in their chariots. Howbeit, long it was firſt ere this faſhion came to bee taken up: and before the daies of *Auguſtus Cæſar*, late Emperour of famous memorie, there had M
not beene knowne any ſuch Images at Rome riding in chariots either drawne with ſix ſteeds, or Elephants, as now there be. The manner alſo of riding in coches with two horſes about the cirque or ſhew place (which uſually they did who had been lords Pretors of Rome) repreſented in their portraitures, is not auncient.

Con-

A Concerning statues erected upon columns or pillars, they bee of greater antiquitie, as may appeare by that of *C. Menius*, who vanquished the auncient Latines that invaded the territorie of Rome; unto which nation, the people of Rome was wont by vertue of the league, to allow the third part of the bootie and pillage gotten in the wars: during the Consulship of which *C. Menius*, upon the victorie atchieved of the Antiats, the citie of Rome ordained, That the beake-heads with their brasen tines, which were taken from them in a conflict at sea, should be fastened unto the pulpit of publicke pleas and Orations, which thereupon was ever after called Rostra: and this fortuned in the foure hundred and sixteenth yeare after the foundation of Rome. The like statue upon a columne was set up for the honour of *C. Duillius*, who first defeated the Carthaginians by sea, and for that navall victorie entred Rome in triumph: The same remaineth at
B this day to be seene in the Forum or grand-place of the citie. Semblably, *P. Minutius* obtained the same honour, who being purveior generall of corne for the citie in time of a dearth, behaved himselfe so well in that office, that his statue of brasse was erected upon a piller without the gate of Rome called Trigemina: and that by an universall contribution of the people, who gave voluntarily toward the charges thereof, every man to the value of an *ounce of brasse coin. And I wot not whether I may boldly say that he was the first man who received that honor at the peoples hands: for beforetime I am well assured that the Senat only graunted such rewards for mens good service. Certes, these were brave and honourable memorials, had they not begun upon occasion of some trifling matters to speak of. For such a statue was that of *Actius Navius* the Augur or Soothsayer, which stood before the entrie of the Curia or Councell-chamber of Rome:
C the base or foot of which pillar was burnt, at what time as the said Curia or Senat-house caught a light fire, at the funerals of *P. Clodius*. The like image was set up (by authoritie from the State) in the publicke place of elections at Rome, called Comitium, to the honour of *Hermodorus* the Ephesian; who translated out of Greeke into Latine the lawes of the twelve tables, which the ten Decemvirs had gathered and set downe for the publicke benefit of the citie. As for the statue of *Horatius Cocles*, which remaineth to this day, there was another reason of it, & the same of greater credit and importance: for that he alone sustaining the whole charge and brunt of king *Porsenaes* armie, made good the woodden bridge over Tybre at Rome, and caused the enemies perforce to abandon the place. As touching the statues of the propheteesses *Sibyllæ*, three there bee of them neare unto the Rostra beforesaid, but of a lesse making, whereat I nothing marvell: the
D one was repaired by *Sex. Pacuvius Taurus*, one of the Ædiles of the Commons; the other two by *M. Messala*. And I assure you, I would have taken these images and that of *Actius Navius* to have been the most antique of all others, as beeing set up in the daies of king *Tarquinius Priscus*; but that I see the statues of the former kings within the Capitoll.

*i. The twelfth part of their As.

Chap. VI.

Statues without gowne or robe at all. Of other Statues. Which was the first statue on horsebacke. When and whereupon al the images, as well publicke as privat, were demolished and put down. What women they were at Rome who were honoured with brasen statues: and which
E *were the first statues erected publickly at Rome by straungers.*

AMong the said statues of Romane kings, that of *Romulus* is without any coat or cassocke at all; like as that also of *Camillus*, which standeth at the pulpit Rostra. As for the image of *Q. Marcius Tremellius*, which was erected before the temple of *Castor* and *Pollux*, the same was in a gowne, and sitting upon horsebacke: This noble knight had vanquished the Samnites twice: and by the winning of Anagnia, a citie not far from Rome, procured therby an easement unto the people, from paying tribute unto the state for the maintenance of the wars. In the ranke of the most antique monuments of Rome, I may range the statues of *Tullius Clœlius*, *L. Roscius*,
F *Sp. Nautius*, and *C. Fulcinius*, which stand about the pulpit Rostra: And these were the foure Romane Embassadours, who against all law of nations, were during their embassage murdered by the Fidenatians. For this was an ordinarie custome with the Romanes, to honour those in this manner, who in the service of the Commonwealth were unjustly killed: as may appeare likewise by *P. Iunius* and *T. Coruncanus*, who by *Teuca* the queene of the Illyrians were put to death, notwithstanding

withstanding they came in embassade unto her. And here I cannot overpasse one point noted in the Annales, That the measure of these statues erected in the common place at Rome, was set downe precisely to be three foot in height: Whereby it may appeare, that this proportion and scantling in those daies was thought to be honourable. Neither will I conceale from you & omit the memorable example of *C.* Octavius*, who for one word speaking, lost his life: This man being sent as Embassadour unto king *Antiochus*, and having delivered his message unto him according to his charge and commission, when he saw that the king made no hast to give him his dispatch presently, but said he would make him an answere another day; made no more adoe, but with a wand or rod that he had in his hand, drew a circle about the king, and compelled him perforce to give him his answere before he stirred his foot without that compasse. But this cost him his life: and for that he was killed thus in his embassage, the Senat of Rome ordained, That his statue should be erected in the most conspicuous place of the citie, and that was in the publicke pulpit for pleas and Orations, the Rostra beforenamed. I read in the Chronicles, that the Senat made a decree, That *Taracia Caia*, or, as some say, *Suffetia*, a Votarie or Vestall Nun, should have her image made of brasse, with this speciall prerogative besides, that she might set it up in what place she would her selfe: which addition or braunch of the decree emplieth no lesse honor than the graunt it selfe of a Statue to a woman. What her desert might bee, in consideration whereof she was thus honored, I will set down word for word, as I find it written in the Chronicles, namely, *For that she had conferred frankely upon the people of Rome, a peece of meddow ground lying under the river Tybre, which was her owne free land.* I find moreover upon record, That the statues of *Pythagoras* and *Alcibiades* were set up in the cornered nouke of the Comitium at Rome, & that by direction from the Oracle of *Apollo Pythius*; unto which the Senat sent of purpose to know the issue of the Samnites warre, which was then in hand: From whence they had this answere, That if they looked to speed well in their affaires, they should take order to erect two statues of brasse in the most frequented place of the citie of Rome, the one in the honour of the most valiant man, and the other in the honour of the wisest person of all the Greekish nation: which images remained there untill such time as *Sylla* the Dictatour built his stately hall or pallace in the same place. But I marvaile verie much, that those sage fathers (the Senatours of Rome at that time beeing) preferred either for wisdome *Pythagoras* before *Socrates* (considering that the said *Socrates* by the verie same Oracle of *Apollo*, was judged the wisest man, not of Greekes onely, but of all others in the world;) or, in regard of valour, *Alcibiades*, before so many hardie captaines in Greece: but most of all I muse, that in both respects, as well of wisedome as vertue, they set anie one before *Themistocles*. Now, if a man bee desirous to know the reason of these columnes and pillars, which supported those statues aforesaid, it was to signifie, That such persons were now advaunced and lifted up above all other mortall men: which also is meant by the triumphant arches, a new invention, and devised but of late dayes: yet both it, and all other such honourable testimonies, began first with the Greekes. But among manie and sundrie statues which they graunted and allowed unto such as they affected and liked of, I suppose, there was never man had more than *Phalerius Demetrius* at Athens: for the Athenians honoured him with three hundred and threescore: and yet soone after they * brake them all to peeces, even before one full yeare went over their heads, that is to say, a few daies more than there were images. Moreover, all the tribes or wards of Rome set up a statue in every street of the citie (as I have said before) in the honor of *Marius Gratidianus*, and those they overthrew everie one, against the comming in of *Scylla*.

*others say *Pompilius*.

**Strabo* saith, that they defaced & melted them, yea, and flung them into draughts and privies.

As touching Statues and Images on foot, I doubt not but they have been for a long time greatly esteemed at Rome. Howbeit, those on horseback were verie auncient: and that which more is, this honour they did communicat also unto women as well as men; as may appeare yet at this day by the statue of *Clœlia* sitting on horsebacke, as if she could not have beene honoured sufficiently by making her statue in the habit of a damosell or ladie of Rome in a side gowne. And yet neither the chast dame *Lucretia*, nor the valiant *Brutus* (who chased the kings and all their race out of Rome, and for whose sake and in whose quarrell the said *Clœlia* was delivered as an hostage among others) never attained unto that honour. And I doe verely beleeve, that this statue of hers, and that of *Horatius Cocles*, were the first that publicke authoritie ordained: for beforetime king *Tarquinius Priscus* caused both his owne statue and also *Sibyllaes* to be made, like as the other kings before him and after, as may be presumed by all likelyhood

A lihood and probabilitie. And yet *Piſo* ſaith, that the other damoſels and young gentlewomen her fellow hoſtages, after they were ſet free and ſent home ſafe againe by king *Porſena* (for the honour that he meant unto *Clælia* in conſideration onely of her rare and ſingular vertue) cauſed the ſaid ſtatue or image of hers to bee caſt in braſſe, and erected. But *Annius Fæcialis* (another antiquarie or heralt at arms of Rome) reporteth this ſtorie otherwiſe; for hee writeth, That the ſtatue of a woman ſitting on horſebacke (which ſtandeth over-againſt the temple of *Iupiter Stator*, and hard at the gate or entrie of king *Tarquinius* the Proud his pallace) was of ladie *Valeria*, daughter unto *Valerius* the Conſull, ſurnamed *Publicola*: who ſaith moreover, that ſhee it was alone who eſcaped from her fellows, and ſwam over the river Tiberis; whereas the reſt of the virgins which had been ſent as pledges unto king *Porſena*, were murdred all, by the ſecret trains and
B indirect means of *Tarquin* the Proud.

L. Piſo moreover hath left in writing, that in the yeere when *M. Æmilius* and *C. Popilius* the ſecond time were Conſuls, the Cenſors for the time being (*P. Cornelius Scipio* and *M. Popilius*) cauſed all the images and ſtatues of thoſe who had been head magiſtrats, that ſtood about the Forum of Rome, to bee taken downe; permitting thoſe onely to ſtand which had been erected and ſet up either by graunt from the people or warrant and decree of the Senat. As for that ſtatue which *Sp. Caſſius* (him I meane who ambitiouſly ſought to be a king) cauſed to be erected for his owne ſelfe before the church of the goddeſſe *Tellus*, the Cenſors not only pulled it down, but alſo tooke order that it ſhould be melted. And this (no doubt) did thoſe wiſe and provident fathers, to cut off all means even in ſuch things as theſe, that might feed the ambitious ſpirit of
C men. There be yet extant certaine declamations of *Cato*, who being Cenſour, cried out againſt the vaineglorie and pride of certaine Romane ladies who ſuffered their owne images to be ſet up in the provinces abroad: yet with all his exclamations, he could not repreſſe their ambition, but that their ſtatues muſt be erected even in Rome alſo: as for example, *Cornelia*, the daughter of the former *Scipio Africanus*, and mother to the two *Gracchi*, whoſe ſtatue was made ſitting: and this ſingularitie it had beſides from all others, That her ſhoes were pourtraied open and looſe without any ſtrings or latchets at all. This image of hers was ſet up in the great gallerie or publick walking-place of *Metellus*, but now it is to bee ſeene among the ſtately workes and buildings of *Octavia*.

Moreover, (by allowance and permiſſion of the ſtate) there have been ſtatues ſet up in Rome
D in publicke place, by ſtraungers: as namely, for *C. Ælius* a Tribune or Provoſt of the commons, for that he publiſhed and enacted a law, That *Stennius Statilius* a Lucan, who twice had invaded and over-run in hoſtile manner, the territorie of Thurium, ſhould be reputed as an enemie unto the Romans: In regard of which demerit, the Thurines honoured the ſaid *Ælius* with a ſtatue of braſſe, and preſented unto him a coronet of gold. The ſame Thurins alſo cauſed another ſtatue to bee made in the honour of *Fabricius*, for raiſing the ſiege that inveſted and beleaguerd their citie. By occaſion of which ſuccour and reliefe given unto ſtrangers and aliens, it came to paſſe in proceſſe of time, that forrein ſtates and cities ſhrowded themſelves ordinarily under the protection of ſome great men at Rome; and in devotion unto them, honoured ſuch as their lords and maſters, by ſtatues and all other means, even as their bounden vaſſals. At length, there grew
E ſuch diſorder and confuſion of theſe ſtatues, that wee had them pell mell at Rome without any choiſe or regard at all: inſomuch, as at this day, there are no fewer than three ſtatues of *Anniball* to be ſeene at Rome, in three ſeverall places of that citie, within the walls whereof he was the only enemie ever knowne to have launced his javelin.

Chap. VII.

Of the Braſſe-founders in old time. The ineſtimable prices of molten Images. Of the moſt renowmed coloſſes and gyantlike Images in Rome.

F THat the Art of Founderie or caſting mettals for Images hath been verie antique, practiſed alſo and profeſſed in Italie as well as in other countries time out of mind, may be evidently prooved by the ſtatue of *Hercules*, which K. *Evander* conſecrated to the honour of him, in that verie place (by folks ſaying) which now is the beaſt-market in Rome. This image is called at this day, *Hercules triumphalis*, and at everie triumph is richly clad in triumphant habit. The image likewiſe of *Ianus* with two faces, dedicated by K. *Numa*, teſtifieth no leſſe; and honoured

he is no leſſe than a god, as by whome the times of warre and peace be diſtinctly knowne. Moreover, the fingers of his hand are in that ſort faſhioned and formed, as they repreſent the number of 365, which are the daies of the whole yeere; by which notification of the yeare, hee ſheweth ſufficiently, that he is the god and patron of times and ages. The images alſo which are knowne commonly by the name of Thuſcanica, which are ſo diſpearſed abroad in all parts of the world, who will ever doubt but that they were commonly made in Tuſcan? I would have thought verely, that theſe Thuſcanica had been the images of the gods, and no other, but that *Metrodorus Scepſius* who for the immortall hatred that he bare againſt the Romans had his * ſurname given him, reprocheth the Romanes among other imputations, That they had forced and ſacked the towne Volſinij, for the love of two thouſand pettie images of braſſe which were therein. Conſidering then, that the invention of making ſuch molten images hath been ſo antique in Italie, I cannot chuſe but much marveile, that the idols and images of the gods in times paſt dedicated in churches and chappels, were either of wood and potters earth, rather than of braſſe, untill the conqueſt of Aſia; from whence, to ſay a truth, firſt aroſe and proceeded all our exceſſe and ſuperfluitie. As touching the firſt deviſe and originall of caſting by moulds and forming the lively ſimilitudes of any thing expreſſely to the patterne, I ſhall have fitter and better occaſion to write thereof in my treatiſe of the art of Potterie, which the Greeks call Plaſtice; for of more antiquitie I take it to be than this feat of Founderie: and yet this craft and cunning ſo flouriſhed in times paſt, and brought for art ſuch excellent peeces of worke, and for number ſo infinit, that if I ſhould put downe the greater part of them, it would require many volumes; for, to comprehend them all, what man is able? During the time that *M. Scaurus* was Ædile, there were three thouſand molten images ſhewed upon the ſtage when he exhibited his plaies, notwithſtanding this theatre of his was made not to continue any time, but to ſerve for the preſent. *Mummius*, after the conqueſt of Achaia, brought in with him ſo many of theſe images, that hee filled the cittie therewith, and no corner was free: and yet when he departed this life and died, he left not behind him a competent portion for to beſtow his daughter in marriage. And this I write not to accuſe and condemne ſo brave a man, but rather to excuſe and commend him: for how can I otherwiſe doe? The two *Luculli* ſtored Rome with a number of theſe images. *Mutianus* (a man who of late daies had been twice Conſull) reporteth, That there bee yet within Rhodes three thouſand ſuch images: and verely it is thought, that in Athens, Olympia, and Delphi, there remaine no fewer to be ſeen. What man living is able to particularize of them all? and ſay a man ſhould come to the perfit knowledge of them, what good can he reape thereby, or what uſe may he make therof? Howbeit, one would take ſome delight and pleaſure lightly to touch the principall peeces of workmanſhip in this kind, and namely thoſe that be of marke and note for ſome eſpeciall ſingularitie above the reſt; as alſo to name therewith the renowmed artificers in times paſt, who wrought every one of them a number of peeces, the exquiſit and curious workmanſhip wherof, no man is able to unfold and utter as they deſerve, ſince that *Lyſippus* (by report) made in his time ſix hundred and ten, ſo full of art, ſo excellent and perfect all, as there is not one of them but ſufficient it were to immortalize his name. And how was it knowne that he made ſuch a number juſt? It appeared plaine after his deceaſe by a coffer that he had, wherein he treaſured up his gold, and which was then broken open by his heire: for the manner of *Lyſippus* was, whenſoever he tooke money for the workemanſhip of any peece that went out of his hands, to lay by in the ſaid coffer one * denier of gold; and ſo by the number of thoſe deniers it was knowne, how many peeces of worke he made. Incredible it is to what heigth of perfection this art grew unto, firſt by the ſucceſſe of the art, which was ſo vendible and high prized; afterwards, by the audaciouſneſſe of the artificer, who ventured to make ſo huge and monſtrous works.

What good ſpeed this art had, may appeare by an example which I will ſet downe, of an image, deviſed to expreſſe the likeneſſe neither of god nor man: and a dogg it was in braſſe, which many a man hath ſeene in our time in a chappell of *Iuno* within the Capitoll temple, before it was burnt now laſt by the * *Vitellians*: This dog was made licking his owne wound; but how artificially it was wrought, and how lively it expreſſed the proportion and feature of a dogg indeed, to the woonder of all thoſe that beholding it could not diſcerne the ſame from a living creature, is apparent not onely by this, That it was thought worthie to ſtand in that place and to bee dedicated to that goddeſſe, but alſo by the ſtraunge manner of charge laid upon them that had the keeping and cuſtodie thereof: for no reall caution of money was thought ſufficient to

be

* It doth not appeare what it was, but by all likelihood μισοβαρβαρος.

* It ſhould ſeeme that the Greekes had a peece in gold anſwerable in weight unto the Romane *Denarius* in ſilver, which was a dram Attick: and this commeth near unto our French crowne.

* *i.* Thoſe that ſided with *Vitellius*.

A be pledged and pawned for the warrantise, or to countervaile the worth thereof: Order therefore was given by the state, and the same observed from time to time, that the sextons or wardens of the said chappell should perfourme the safetie and forth-comming of it under paine of death.

As touching the bold and venturous peeces of worke that have been perfourmed and finished by this art, we have an infinit number of such examples: for we see what huge and gyantlike images they have devised to make in brasse, resembling high towres more like than personages, and such they called Colossi. Of this kind is the image of *Apollo* within the Capitoll, transported by *M. Lucullus* out of Apollonia, a cittie within the kingdome of Pontus, which in heigth was thirtie cubits, and cost a hundred and fiftie talents the making. Such another is that of *Iupiter* within *Mars* field, dedicated by *Claudius Cæsar* the Emperour, which because it standeth so
B neare unto *Pompeys* theatre, men commonly call *Iupiter Pompeianus*, and full as big he is as *Apollo* abovenamed. Like unto these, is the colosse or stately image [of *Hercules*] at Tarentum, the handiworke of the said *Lysippus*, but he is fortie cubits high: and miraculous is the devise of this colosse, if it be true which is commonly reported thereof, namely, that a man may moove and stirre it easily with his hand, so truly balanced it standeth and equally counterpoised by Geometrie; and yet no wind, no storme or tempest, is able to shake it. Certes it is said, that the workeman himselfe *Lysippus*, provided well for this daunger, in that a prettie way off hee reared a columne or pillar of stone full opposit to the winds mouth, for to breake the force and rage thereof, from that side where it was like to blow and beat most upon the colosse: and verely so huge it was to weld, and so hard to be remooved, that *Fabius* surnamed *Verrucosus*, durst not meddle
C withall, but was forced to let it alone and leave it behind him; notwithstanding he brought with him from thence another *Hercules*, which now standeth within the Capitoll. But the colosse of the Sun which stood at Rhodes, and was wrought by *Chares* of Lyndus, apprentice to the abovenamed *Lysippus*, was above all others most admirable; for it carried seventie cubits in heigth: well, as mightie an image as it was, it stood not on end above threescore yeers and six; for in an earthquake that then happened, it was overthrowne: but lying as it doth along, a woonderfull and prodigious thing it is to view and behold: for first and foremost, the thumbs of the hand and great toes of the foot are so big, as few men are able to fadome one of them about: the fingers and toes are bigger than the most part of other whole statues and images: and looke where any of the members or lims were broken with the fall, a man that saw them would say they were
D broad holes and huge caves in the ground: for within these fractures and breaches, you shall see monstrous big stones, which the workeman at the first rearing and setting of it had couched artificially within, for to strengthen the colosse, that standing firme and upright so ballaised, it might checke the violence of wind and weather. Twelve yeeres (they say) *Chares* was in making of it before hee could fully finish it, and the bare workmanship cost three hundred talents: This mony was raised out of K. *Demetrius* his provision which he had set by for that purpose, and paid from time to time by his officers, for that hee would not himselfe endure to stay so long for the workemanship thereof. Other images there are besides of the nature of colosses in the same cittie of Rhodes to the number of one hundred, lesser indeed than the foresaid colosse of the Sun; yet there is not one of them, but for the bignesse were sufficient to give a name to the place and
E ennoble it, whersoever it should stand. Over and above, there bee in the said cittie five other gyantlike images or colosses representing some gods, and those of an huge bignesse, which were of *Bryaxes* his making. Thus much of workemen straungers.

And to come somewhat nearer home: wee Italians also have practised to make such colosses, for surely we may see (and goe no farther than to the librarie belonging to the temple of *Augustus Cæsar* here in Rome) a Tuscan colosse made for *Apollo*, and the same is fiftie foot high from the great toe upward: but the bignesse thereof is not so much as the matter and workemanship: for hard it is to say, whether is more admirable, the beautifull feature of the bodie, or the exquisit temperature of the mettall. Moreover, *Sp. Carvilius* long agoe made the great image of *Iupiter* which standeth in the Capitoll hill, after the Samnites were vanquished in that daungerous
F warre, wherein they bound themselves by a sacred law and oth to fight it out to the last man, under paine of death to as many as seemed to turne backe or once recule; to the making whereof, hee tooke the brasen cuiraces, greives, and morions of the enemies that lay dead and slaine upon the ground: which is so exceeding bigg and large, that hee may verie plainely and evidently bee discovered and seene from the other *Iupiter* in Latium, called therefore *Latiarius*.

* *Festus* saith 105 foot: wherby it appeareth that a cubit was one foot & a halfe.

Chares the workeman engraved under it this Hypogram in Iambicke verse: Τὸν ἐν ῥόδῳ κολοσσὸν ἑπτήκοντα πήχεων ὑψηλὸν Χάρης ἐποίησε Λίνδιος.

The powder and duſt which the file made in the workmanſhip and poliſhing of this coloſſe, *Carvilius* himſelfe caſt againe, and thereof made his own image and pourtraiture, and the ſame ſtandeth (as you may ſee) at the foot of the other. Within the ſaid Capitoll, there bee two braſen heads worthie of admiration, which *P. Lentulus* when he was Conſull thought good to dedicat to that place. The one was made by *Chares* the foreſaid founder; the other wrought by *Decius*: but this of *Decius* his making compared with the other, commeth ſo farre ſhort, that one would not take it to be the doing of an artificer that was his crafts-maſter, but rather of ſome bungler, prentice, or learner. But to ſpeake indeed of a great image, and that which ſurpaſſeth in bigneſſe all the reſt of that kind, looke but upon the huge and prodigious coloſſe of *Mercurie*, which *Zenodorus* in our age and within our remembrance, made in Fraunce at Auvergne: ten yeeres he was about it, and the workmanſhip came to foure hundred thouſand ſeſterces. Now when he had made ſufficient proofe of his Art there, *Nero* the Emperour ſent for him to come to Rome, where hee caſt indeed and finiſhed a coloſſe a hundred and ten foot long, to the ſimilitude and likeneſſe of the ſaid Emperor, according as it was firſt appointed and as he began it: but the ſaid prince being dead and his head laid, dedicated it was to the honour and worſhip of the Sun, in deteſtation of that moſt wicked monſter, whoſe ungratious acts the citie condemned and abhorred. Certes, I my ſelfe have been in that workehouſe of *Zenodorus*, where I beheld and conſidered not onely that great maſter-patterne in cley of the ſaid coloſſe, but alſo another conſiſting of verie ſmall peeces, as braunches, which ſerved as it were for moulds, and the firſt induction to the worke, as the aſſay and proofe thereof. Surely the workemanſhip of this one ſtatue or coloſſe, ſhewed plainly, that the true ſcience and skill of founderie or caſting braſſe into forms, was clean decaied and gone; conſidering that *Nero* was readie and willing to give ſilver and gold enough for the doing thereof artificially and with expedition. *Zenodorus* alſo himſelfe was not thought inferiour to any workman in old time, either for counterfeiting a ſimilitude, or graving the ſame: for during the time that hee made the ſtatue beforeſaid in Auvergne, hee counterfeited two drinking cups graven and chaſed by the hand of *Calamis*, but belonging to *Vibius Avitus* (the preſident and governour at the ſame time, of that province) which he had received of *Caſſius Syllanus* his uncle by the mothers ſide, tutor and ſchoolemaſter ſometime to *Cæſar Germanicus*; which prince notwithſtanding that he loved them well, yet hee beſtowed them freely upon his ſaid inſtructer *Caſſius*, whome he loved better: and *Zenodorus* did it ſo well, that hardly there could be diſcerned any difference in the workemanſhip. But to conclude, the more conſummat and accompliſhed that *Zenodorus* was for his skill and cunning, the more evidently it appeareth, that the true Art of founderie was in his time cleane loſt, and out of knowledge and practiſe.

G H I K

Chap. VIII.

Of 366 excellent peeces of worke in Braſſe, and as many cunning artificers in that kind.

THe images and wrought peeces of Braſſe, commonly called Corinthian works, many men take ſuch pleaſure and delight in, that they love to carrie the ſame with them whitherſoever they goe; as *Hortenſius* the famous orator, who would never be without the counterfeit of *Sphinx*, which hee had from *Verres* his client, at what time as hee was in trouble and called into queſtion, for his extortions and oppreſſions in Sicilie: in which triall of *Verres*, wherein *Cicero* was his adverſarie and accuſer, upon occaſion that *Hortenſius* who pleaded at the barre againſt him in the behalfe of *Verres*, among other croſſe words that paſſed betweene, happened to ſay, That he underſtood no parables and riddles, and therefore willed him to ſpeake more plainely; *Cicero* made anſwer readily againe, That by good reaſon he ſhould be well acquainted with riddles, ſeeing he had a *Sphinx* at home in his houſe. Likewiſe, *Nero* the Emperour had a great fancie to a peece or counterfeit of an Amazon, (whereof I meane to write more hereafter) which by his good will he would never bee without. And *C. Ceſtius*, ſomewhat before *Nero*, a man that in his time had been Conſull, was ſo addicted to a little image that he had, that it went with him into the campe, yea and he would have it about him in the verie conflict and battaile with his enemies. Moreover, K. *Alexander* the Great had four ſtatues or images (by report) which ordinarily were woont and none but they, to ſupport his tent when he lay abroad and kept the field: wherof, twain ſtand now before the temple of *Mars* called the Revenger, & othet two before the Palatium.

L M

As

A As touching images, ſtatues, and counterfeits of a ſmaller ſize, there are an infinit number of artificers who are ennobled & renowmed by them: yet to begin with the image of *Iupiter* made at Olympia, *Phidias* the Athenian (above all other) was in great name therefore, and wrought it was of yvorie and gold togither: howbeit, many other peeces of braſſe there were of his making, which greatly commended the workeman. Hee flouriſhed in the 83 Olympias, and about the yeere (after our computation at Rome) 300. And at the ſame time, there lived thoſe concurrents of his who endeavoured to match him, to wit, *Alcamenes*, *Critias*, *Neſtocles*, and *Hegias*. After theſe, and namely in th 87 Olympias, there ſucceeded and had their time, *Agelades*, *Callon*, *Polycletus*, *Phragmon*, *Gorgias*, *Lacon*, *Myron*, *Pythagoras*, *Scopas*, and *Perelius*: of which, *Polycletus* brought up divers brave and worthie apprentices, and by name, *Argius*, *Aſopodorus*, *Alexis*, *Ariſtides*, *Phrynon*, *Pynon*, *Athenodorus*, *Dameas* of Clitore, & *Myron* the Lycian. In the 95 Olympias, B there flouriſhed *Naucides*, *Dinomedes*, *Canochus*, and *Patrocles*. In the 102 Olympias, there came in place, *Polycles*, *Cephiſodorus*, *Leochares*, and *Hypatodorus*. In the 104 lived *Lyſippus*, at what time alſo K. *Alexander* the Great flouriſhed: likewiſe *Lyſiſtratus*, and his brother *Sthenis*, *Euphronides*, *Soſtratus*, *Iön*, and *Silanion*: of which *Silanion*, this is woonderfull, that having no maſter at all to teach and inſtruct him in the art, yet he became himſelfe ſo excellent, that hee brought up under him, *Zeuxis* and *Iädes*. In the 120 Olympias, *Eutychides*, *Euthycrates*, *Lahippus*, *Cephiſodorus*, *Tymarchus*, and *Pyromachus*, were famous artificers for the time. Then lay the Art aſleep and as it were dead for a while, untill ſuch time as about the 155 Olympias, it ſeemed to revive and awaken againe: and then there aroſe *Antheus*, *Calliſtratus*, *Polycles*, *Athenæus*, *Callixenus*, *Pytho-* C *cles*, *Pythias*, and *Timocles*, indifferent good workmen, but nothing comparable to the other beforenamed. Thus having raunged the moſt famous artificers diſtinctly according to their ſeverall ages, I will run over them againe; as many I meane as excell the reſt: and yet howſoever I make haſt, I will not overpaſſe the multitude of others, but interlard (as it were) and diſperſe them among, as occaſion ſhall be offered.

In the firſt place, this is to be underſtood, that the principall and ſingular of all theſe founders came in queſtion (notwithſtanding they lived in ſundrie ages) which of them ſhould be eſteemed chiefe, by reaſon of divers Amazons wrought by their hands: for when theſe images ſhould be dedicated in the temple of *Diana* in Epheſus, it was thought good to make choiſe of one which ſhould be deemed and approoved beſt, by the judgement of thoſe workmen who then lived and D were preſent: for plain it was, that the image which they all judged to be next and ſecond to their owne, the ſame was ſimply beſt, and ſo to be reputed. This principall Amazon hapned to be of *Polycletus* his making: in a ſecond degree, was the Amazon made by *Phidias*: that of *Cteſilas* was counted the third; of *Cydon* the fourth: and in a fifth place was reckoned the workemanſhip of *Phragmon*. As for *Phidias*, beſides the *Iuppiter Olympius* of his making (wherein no man ſeeketh to come neare unto him) he made likewiſe *Minerva* of yvorie at Athens, which ſtandeth there in the temple Parthenon. But over and above the foreſaid Amazon, there was of his workmanſhip, *Minerva* in braſſe, ſo faire and beautifull, that of her beautie ſhee tooke the ſurname [of χαλλίμορφος.] Of his doing was the image called *Cliduchos*, and another *Minerva*, which *Æmilius Paulus* dedicated at Rome in the temple of *Fortuna hujuſce diei*, *i.* Of this daies *Fortune*. Alſo, E two other ſtatues or images portraied in clokes or mantels, were his handiworke, which *Catulus* ſet up in the ſame temple: likewiſe another after the manner of a coloſſus or gyant all naked. In ſum, he was deemed and that juſtly, to have been the firſt that deviſed and taught the skill of chaſing and emboſſing. As for *Polycletus* the Sicyonian, who learned his cunning under *Agelades*, he it was that made in braſſe, *Diadumenus*, an effeminat yong man looking wantonly, with a diadem or wreath about his head; a peece of worke of great account and much ſpoken of, for that it coſt 100 talents: and of his making was *Doryphorus*, a young boy with a manly countenance, bearing a ſpeare in his hand. Moreover, he made that which workmen doe call Canon, that is to ſay, one abſolute peece of worke, from whence artificers doe fetch their draughts, ſymetries, and proportions, as from a perfect pattern or rule which guideth and directeth them in their worke: ſo as we F may well and truely judge, that *Polycletus* alone reduced the skill of founderie and imagerie into an art and method, as may appeare both by that Canon, and by other workes which paſſed his hands. Of his workemanſhip was the braſen image, repreſenting one ſcraping and rubbing himſelfe in the bath or hotehouſe: as alſo another all naked, and *challenging to the dice: *Item*, two boyes both naked playing at dice, which thereupon be called Aſtragalizontes.

* κλειδοῦχος, *i.* *Claviger*, the key-bearer.

* *Talo inceſſentē*, ſome read, *talo inſedentem*.

And theſe remaine to be ſeene in the court or portall belonging to the houſe of *Titus* the Em- G
perour, which is ſuch an exquiſit peece of worke, that many doe judge, there cannot bee ſet another to it more abſolute and perfect: alſo, he it was that wrought the image of *Mercurie* which is at Lyſimachia; of *Hercules* at Rome, and namely, how hee heaved and held up *Anteus* from the ground betweene heaven and earth: and the counterfeit of *Artemon*, that effeminat and wanton perſon, who becauſe he was ordinarily carried in a litter, men called Periphoretos. This *Polycletus* was judged to have brought this art of Imagerie to a conſummat perfection: the feat alſo of engraving and embоſſing, hee was thought to practiſe and promote; like as *Phidias* before him opened the way to it, and gave inſtructions. This proper and ſpeciall gift he had beſides above all other, To deviſe how images might ſtand upon one leg: and yet *Varro* ſaith, that all the images of his making, be foure ſquare, and all in manner after one patterne.

To come unto *Myro*; borne he was at Eleutheræ, and an apprentice likewiſe to *Agelades*: the H
peece of worke that brought him into name and made him famous, was an heifer of braſſe; by reaſon that divers Poëts have in their verſes highly praiſed it, and ſpread the ſingularitie thereof abroad: for ſo it falleth out otherwhiles, that many men are commended by the wit of others, more than by their owne. Other peeces of worke there were of his beſides; to wit, a dog, a coit-caſter (or one hurling a ſtone or weight of lead) *Perſeus* [killing *Meduſa*,] ſawyers called Priſtæ, a Satyre woondring at a pipe or flute, and the goddeſſe *Minerva*: moreover, the Delphicke Pentathli, and the Pancratiaſtæ: furthermore, that image of *Hercules* which ſtandeth in the temple that *Pompey* erected, neare the greateſt cirque or ſhew-place, is the handyworke of *Myro*: over and beſides, (as it appeareth by the poëſie of *Erinna* the poëtreſſe) he it was that made the tomb I
or monument in braſſe, of a poore graſhopper and a locuſt: the image likewiſe of *Apollo* (which after that *Antonius* the Triumvir had wrongfully taken from the Epheſians, *Auguſtus Cæſar* reſtored againe unto them, being warned ſo to doe by a viſion appearing unto him in his ſleepe) was of *Myro* his making. This workeman ſeemeth to have been the firſt that wrought not his images after one ſort, but altered his worke after many faſhions, as being fuller of invention and given more to deviſe in his art, more curious alſo and preciſe in his ſymentries and proportions, than *Polycletus*: And yet as exquiſit as hee was, hee went no farther than to the outward lineaments of the bodie and members thereof; as for the inward affections of the mind, he did not expreſſe in any of his worke: the haire alſo as well of head, beard, as ſhare, he left after a groſſe manner, and wrought them no finer than the rude and unexpert workemen in old time, had either done or K
taught. No marveile therefore if *Pythagoras* (the imageur of Rhegium in Italie) went behind him in this feat, and namely in that peece of worke of his which reſembled a wreſtler or Pancratiaſtes, which was dedicated in the temple of *Apollo* at Delphos. He came ſhort alſo of *Leontius*, who expreſſed lively in braſſe, *Aſtylos*, the famous runner in a race; which image is ſhewed for a rare peece of worke in Olympia: alſo the boy *Libys*, which is to be ſeene in the ſame place, holding in his hand a little table, and withall carrying apples, ſtarke naked. Hee made alſo the pourtraiture of one that ſeemed lame and to halt, upon ſome ulcer; but the ſame was ſo lively and naturally done, that as many as behold the ſame, ſeeme to have a compaſſion and fellow-feeling with him of ſome paine and grievance of his ſore; and this peece of worke a man may ſee at Syracuſa. Furthermore, the ſaid *Leontius* caſt in braſſe one *Apollo* playing upon his harpe; as alſo L
another *Apollo*, and the ſerpent killed with his arrows, which image he ſurnamed *Dicæus*, *i.* Iuſt; for that when the citie of Thebes was woon by *Alexander* the Great, the gold which he hid in the boſome thereof when hee fled, was found there ſafe and not diminiſhed, when the enemie was gone and he returned againe. He was the firſt, that in his images expreſſed the ſinews and veines lying under the skin: he it was alſo that couched and laid the haire of the head more handſomly, yea and wrought the ſame far more finely than any before him.

* rather, *Parius* of Paros.

Now beſides *Pythagoras* before mentioned, there was another a * Samian borne, who by occupation, was at the beginning a painter: of his handiworke are thoſe ſeven images halfe naked, which are to be ſeene in the temple of * This daies *Fortune* at Rome; and one reſembling an old man: all highly commended for ſingular art. This *Pythagoras* was ſo like unto the other above- M
named, eſpecially in face and countenance, that hardly (by report) one of them could be known from the other. As touching *Soſtratus*, it is ſaid, hee was apprentice to *Pythagoras* of Rhegium, and his ſiſters ſon beſides. As for *Lyſippus* of Sicyone, *Duris* ſaith, that he learned the art by himſelfe, and never was taught by other: but *Tullius* affirmeth, that hee was apprentice unto it, and

* *Huiuſce diei.*

having

A having beene at first by occupation but a poore tinker or a plaine brasier and coppersmith at the most, he began to take heart unto him, and to proceed further, by a speech or answere that *Eupompus* the painter gave him: for when he seemed to aske this painters counsell, What patterne, and whom hee were best to follow of all those workemen that were gone before him? hee shewed unto him a multitude of people, and said withall, That he should doe best to imitate Nature her selfe, and no one artificer: and that was it (quoth he) which I meant by the former demonstration of so many men. And verely, so excellent a workeman hee prooved in the end, that he left behind him the most peeces of any man, as I have said before, and those of all sorts, and fullest of art & good workmanship: and among the rest, an image of a man, currying, rubbing, and scraping the sweat and filth off his owne bodie; which *M. Agrippa* caused to be set before his owne baines: and the
B Emperour *Tiberius Cæsar* tooke so great pleasure in it, that notwithstanding at his first comming to the crowne, he knew well ynough how to commaund and temper his owne affections, yet he could not now rule himselfe, but would needs have the said image to be removed from thence into his owne bed-chamber, and another to bee set in the place of it: whereat the common people (see their contumacie and frowardnesse!) were so much offended and displeased at it, that they rested not with open mouth to exclaime upon him in all their Theatres, when they met there together, and cried for to have their Apoxyomenos set againe in the owne place: Insomuch, as the Emperour was content so to doe, notwithstanding he loved it so well. This *Lysippus* also woon greater credit and commendation by another image that hee made, representing a woman piping or playing upon the flute, and drunken withall: also by a kenell of hounds,
C together with the huntsman & all belonging to the game. But above all, he gat the greatest name for making in brasse a chariot drawne with foure steeds, together with the image of the Sunne, so much honoured among the Rhodians. The personage of king *Alexander* the Great hee likewise expressed in brasse, and many images he made of him, beginning at the very childhood of the said prince. And verely the Emperour *Nero* was so greatly enamoured upon one image of *Alexander*, that hee commaunded it to be guilded all over: but afterwards, seeing that the more cost was bestowed upon it by laying on gold, the lesse was the art seene of the first workman, so that it lost all the beautie and grace that it had by that means, he caused the gold to be taken off againe: and verely, the said image thus unguilded as it was, seemed farre more precious than it was whiles it stood so enriched with gold, notwithstanding all the hackes, cuts, gashes, and rases
D all over the bodie wherein the gold did sticke, remained still, which in some sort might disfigure it. Of this mans making was the statue of *Hephæstion*, a great favorit and minion of *Alexander* the Great; and yet some ascribed this peece of worke unto *Polycletus*: whereas in truth hee lived almost a hundred years before the said *Hephæstion*. He counterfeited also *Alexander* the Great how he rid a hunting, with his hounds and all things belonging to the chase: and this worke of his resembling hunting, was thought worthie to be consecrated in the temple of *Apollo* at Delphi. At Athens he made a troupe of Satyres. As for *Alexander* himselfe, with all his principall courtiers and friends about him, he resembled in brasse most lively. All these peeces of his workemanship before rehearsed, were transported to Rome by *Metellus*, after the subduing and conquest of Macedonie. Finally, coaches drawne with foure horses, he made of many sorts and fashions, all in
E brasse. And in one word, the art of founderie and imagerie was brought to farre greater perfection by this artificer, as it was thought: for he expressed the very haires of the head, as fine & small as Nature made them: the heads to the images of his making, were nothing so big in proportion to the rest of the bodie, as they were in old time: his images shewed not so grosse and corpulent, but more lanke, slender, and leane; as well to expresse the knitting of joints, the ribs, veines, and sinewes the better, as to cause them also to seeme the taller. The Symmetrie, which above all things he observed most precisely in all his workes, is a tearme that cannot properly be expressed by a Latine word. A new devise he had that never before him any practised, and that was, to make his images of a quarrie and square stature, as the auncients before his time did: for an ordinarie speech it was of his, That in times past men were made plaine, such as they were: but hee made
F them as they would seeme to be. Finally, it seemeth, that this singular gift he had above all others in all his workes, to shew fineneſse and subtiltie, which he observed most curiously in the smallest things that passed under his hand. When he died, he left behind him three sonnes, who also were his apprentises: of whom, *Lahippus* and *Bedas* were passing good workmen, and very well regarded; but *Euthycrates* his third sonne, overwent his brethren: although I must needs say, that hee

loved

loved rather to follow his father in ſuch workes as caried ſome conſtancie & majeſtie with them, G
than any daintie geſture or curious elegancie, wherein his father excelled: and hee choſe rather
to employ his wit in expreſſing ſad, auſtere, and grave perſonages, than to beat his braine about
pleaſant and beautifull workes to pleaſe and content the eye. And therefore the portrait of *Her-*
cules, which is to be ſeene at Delphos within the temple of *Apollo*, he expreſſed moſt excellently:
the ſtatue alſo of king *Alexander* the Great was of his making, and is thought to be a rare peece
of worke: the hunter *Theſpis* was of his making, a worke highly eſteemed: like as the nine Muſes
alſo, knowne by the name of *Theſpiades*. He repreſented alſo in braſſe a skirmiſh on horſeback, re-
ſembling that Turnois which was performed at the Oracle of *Iupiter Trophonius*: likewiſe the co-
ches of queene *Medea*, drawne with foure horſes, of which kind he made many: as alſo a horſe
with panniers: and hunters hounds, as if there were a crie of them. H

Hee brought up under him one *Tiſicrates*, who alſo was a Sicyonian, but hee rather ſeemed to
imitate *Lyſippus* than his maiſter *Euthycrates*, inſomuch as many peeces of his making could bee
hardly diſcerned from thoſe in the ſame kind, which came out of *Lyſippus* his hand: as for exam-
ple, the image of an old man reſembling the habit of a Thebane; the pourtrait of king *Demetrius*,
and of one *Peuceſtes* who ſaved the life of *Alexander* the Great; in which regard, hee deſerved well
to be immortalized by ſo good a hand.

Moreover, divers artificers there be who have written great volumes of ſingular workmen in
imageurie, & they commend wonderfully one *Telephanes* a Phocean, whoſe name otherwiſe had
been unknown, for that in Theſſalie where he dwelt, his works lay hidden and never came to light:
for in regard of his skill and ſufficiencie, by all their voices equall hee was to *Polycletus*, *Myron*, I
and *Pythagoras*. And to come unto particulars, they write much in the praiſe of his *Lariſſa*, his
Apollo, and one *Spinarius*, a notable wreſtler, and who had woon ſeverall prices in all the five
kinds of maiſteries and feats of activitie. And yet I am not ignorant, that ſome alledge another
cauſe of his obſcureneſſe, and why he is no more talked of, becauſe he was a freed workeman unto
Xerxes and *Darius*, and devoted himſelfe wholly to their ſervice, and had the worke of thoſe two
kings onely.

As for *Praxiteles*, his workmanſhip was more ſeene in cutting of marble, and making images
thereof, wherein he had a ſingular grace and rare felicitie, and in which regard, his name was the
greater. Yet he ſhewed good proofe of his skill in founderie alſo. For there be moſt beautifull caſt
images of braſſe which hee made, to wit, the raviſhing of *Proſerpina* by *Pluto*, a Spinſter ſpinning, K
which hee called *Cataguſa*: the image of drunkenneſſe: god *Bacchus* attended with one of the
Satyres; a noble peece of work, and which, for the great voice and bruit that went of it, the Greeks
ſurnamed *Periboetos*. The braſen images likewiſe which ſtood ſometimes in the forefront of the
temple at Rome dedicated to *Felicity*, were of his making: as alſo the goddeſſe *Venus*, which when
the chappell wherein ſhe ſtood erected, was burnt (during the reigne of *Claudius Cæſar* the Em-
peror) was melted; an exquiſit peece of worke, and comparable to that *Venus* of his cutting in
marble, which all the world ſpeaketh ſo much of. He portraied alſo in braſſe a woman making co-
ronets and chaplets of flowers, which goeth under the name of *Stephuſa*: a foule old trot and a
naſtie, bearing the title of *Spilumene*: a carrier alſo of flaggons or wine-pots, knowne by the ad-
dition of *Oenophorus*. He expreſſed moreover in braſſe and that moſt lively, *Harmodius* and *Ari-*
ſtogiton, maſſacring the tyrant *Piſiſtratus*: which images being with other pillage taken and cari- L
ed away by *Xerxes* king of the Perſians, and recovered by king *Alexander* the Great when he had
conquered the kingdome of Perſis, the ſaid prince and conqueror reſtored to the Athenians, and
ſent them home to them againe. Furthermore, hee caſt in braſſe a * youth lying in wait with an
arrow to kill a Lizard, which was readie to creepe cloſe unto him and to ſting; which peece of
worke he tearmed *Sauroctonus*. Two images there are beſides of his making, which people take
much pleaſure to behold, and thoſe in countenance ſhew divers affections; to wit, a ſobre matron
weeping, and a light courtiſan ſmirking: It is thought that this courtiſan was his own ſweet heart
Phryne, for men do note both (in the curious workmanſhip of the artificer) the love of him which
fancied her, and alſo (in the pleaſant countenance of the harlot) the contentment that ſhe took by M
receiving her hire. There is an image alſo of his making, which doth expreſſe his own benignitie
and bountifull mind; for to a coach of *Calamis* his doing, drawn with foure horſes, he ſet a coach-
man of his owne handyworke: and why? becauſe the poſteritie another day ſhould not thinke,
that *Calamis* having done ſo wel in portraying the horſes, failed of the like cunning in expreſſing

* Some thinke he meaneth this of *Apollo*.

the

A the man: and to say a truth, *Calamis* was not altogether so perfect & readie in personages of men and women, as in the portraiture of horses. This *Calamis* was he who made many other coaches and chariots, as well with two steeds as foure; and verely, for absolute workemanship about horses wherein hee never missed, he had not his fellow againe in the world: and yet because hee would not be thought unlike himselfe, but be taken for as good an imageur in expressing men and women, as in representing horses, one statue he made in resemblance of ladie *Alcmena*, which is so exquisitly wrought as no man could ever set a better peece of worke by it.

To come now to *Alcamenes*, trained up under *Phidias*. A singular workman he was, & wrought many peeces in marble, as also in brasse, and namely a brasen *Pentathlus*, knowne also by the name of *Encrinomenos*.

B But *Aristides*, who learned his skill under *Polycletus*, is famous for the chariots that he made as well with foure as two horses. *Iphicrates* likewise cast in brasse a Lioneſſe, which is much praised, and goeth under the name of *Leæna*, and that upon this occasion; There was a certaine strumpet named *Leæna*, who beeing familiarly acquainted with *Harmodius* and *Aristogiton* abovenamed, (for that she could play upon the harpe, and withall sing so sweetly to it) and privie to their plots and projects as touching the murder of the tyrant *Pisistratus*, would never, to die for it, discover and reveal this intention and purpose of theirs unto the tyrant and his favorits, notwithstanding she was put to most exquisit and dolourous torments about it. The Athenians therefore desirous to honour this woman for her resolute constancie accordingly; and yet loth to be thought for to make so much of such an harlot as she was, devised to represent the memoriall of her and her act
C by a beast of her name, and that was a Lioneſſe: yet for to expresse the particular motive and reason of this honor done unto this Lioueſſe, they gave order unto *Iphicrates* the workman, to leave out the *tongue in the head of this Lioneſſe.

*For this harlot *Leæna* fearing least she might for pain and torment let passe some word, & bewray the thing, she bit out hir own tongue, & spit it in the face of the tyrant and the tormẽtors.

Touching *Bryaxis*, there be two excellent peeces of his making, to wit, *Æsculapius* and *Seleucus*. As for *Bedas*, he resembled in brasse old *Battus* adoring *Apollo* and *Iuno*: And all three by him curiously wrought, are now standing in Rome within the temple of *Concord*. *Ctesilas* expressed in brasse a man greevously wounded, fainting and readie to die thereupon; which hee did so lively, that one might perceive therein how little life and breath was left within his bodie. He made likewise the image of *Pericles* *Olympius*, who for his divine eloquence and holinesse was worthie of that heavenly name. And here by the way, a wonderfull gift this art hath, that it alwaies hath made
D noble and worthie persons more noble and famous.

As for *Cephissodorus*, the admirable image of *Minerva* which is to be seen in the haven or harbor of the Athenians, was his workmanship: The altar also before the temple of *Iupiter*, surnamed *Savior*, neare the said haven, was of his doing, and few peeces of worke there be comparable unto it.

Canachus made one excellent image of *Apollo* all naked, which by the title and surname of *Philesius*, standeth in the temple called *Didymæum*. And this *Apollo* was cast of the brasse of Æginetticke temperature. There is with the said *Apollo* another most exquisit and curious peece of worke by him devised and wrought, to wit, a stag standing so lightly upon his feet, that a man may draw a thred under them; and the same takes hold of the floore underneath, so daintily, that he seemeth to touch it with one foot by the clea, with another by the heele; and the same after
E such a winding manner twining and turning, as well with the one as the other, that a man would thinke one while he were about to bounce and spring forward, and another while to start and cast himselfe backward by turnes. The same workman invented a devise of yong lads and youths vaulting and mounting on horseback. *Chæreas* expressed in brasse the lively portraitures of king *Alexander* the Great, and king *Philip* his father. *Ctesilaus* represented in the same mettall, one of these Doryphori, which were of king *Darius* his guard, bearing a speare or pertuisane: also one of those warlick women, Amazones, wounded. And *Demetrius* woon great credit by making *Lysimache* in brasse, who had beene the Priestresse of *Minerva*, and exercised that ministerie threescore and foure yeares. And this artisane made also the image of *Minerva*, surnamed *Musica*, upon this devise, For that the dragons or serpents which serve in stead of haires upon her *Gorgon* or *Medusaes*
F head, wrought in her targuet, would ring and resound againe, if one strucke the strings of an Harpe or Citron neare unto them. And the same imageur made the lively portraiture of *Sarmenes* riding on horseback, for that he was the first that wrote of horsemanship. *Dædalus* moreover, who is ranged among the excellent founders and imageurs of old time, devised in brasse two boies, rubbing, scraping, and currying the sweat from their bodies in the baine. And *Dinomenes*

* For he never made speech to the people, but with iointhãds lifted up to heaven, he praied first.

was

was the workman,who caſt in braſſe the full proportion and ſimilitude of *Proteſilaus*, and of *Pythodemus* the famous wreſtler. *Alexander*, otherwiſe called *Paris*, was of *Euphranor* his making: The excellent art and workmanſhip whereof was ſeene in this,that it repreſented unto the eye all at once,a judge between the goddeſſes,the lover of *Helena*,and yet the murderer of *Achilles*.The image of that *Minerva* at Rome,which is called *Catuliana*,came out of this mans ſhop: and it is the ſame which was dedicated and ſet up beneath the Capitoll by *Quintus Luctatius Catulus*, whereupon it tooke that name. Moreover, the image that ſignifieth good lucke or happie ſucceſſe,carying in the right hand a boule or drinking cup, in the left an eare of corne and a Poppie head,was his handie worke. Like as the princeſſe or ladie *Latona*, newly delivered of *Apollo* and *Diana*,holding theſe her two babes in her arms:& this is that *Latona* which you ſee in the church of *Concordia* in Rome.He made beſides many chariots, drawne as well with foure as two horſes:as alſo a key-bearer or *Cliduchus*, of incomparable beautie. Semblably, two other ſtatues, reſembling Vertue and Greece,both which were of an extraordinarie ſtature and bigneſſe, gyant-like, in manner of Coloſſes.He made beſides a woman miniſtring,and yet worſhipping withall. *Item*, King *Alexander* the Great,and king *Philip* his father, riding both in chariots drawne with foure horſes. *Eutychides* a renowned imageur, repreſented the river Eurotas in braſſe: and many men that ſaw this worke,were wont to ſay,That the water ran not ſo cleare in that river,as art and cunning did appeare in this workemanſhip. *Hegias* the imageur made *Minerva* and king *Pyrrhus*, which be much praiſed for the art of the maker: likewiſe boies practiſing to ride on horſeback: the images alſo of *Caſtor* and *Pollux*, which ſtand before the temple of thundering *Iupiter* in Rome.In the colonie or citie Parium,there is an excellent ſtatue of *Hercules*,the handie worke of *Iſidorus*. *Buthyreus* the Lycian was taught his cunning by *Myron*, who among many other peeces,beſeeming the apprentiſe of ſuch a maiſter, deviſed in braſſe to repreſent a boy blowing at a fire halfe out: and hee it was that caſt in the ſame mettall the famous Argonautes,in that voyage to Colchos. G H I

Leocras made the Ægle that raviſhed *Ganymedes* and flew away with him;but ſo artificially,as if ſhe knowing what a fine and daintie boy ſhe had in charge,and to whom ſhee caried him, claſped the child ſo tenderly,that ſhe forbare with her tallons to pierce through his very cloths. The boy *Autolicos* alſo, winning the prize in all games and feats of activitie, was of his making; for whoſe ſake *Xenophon* wrote his booke entituled *Sympoſion*: likewiſe that noble image of *Iupiter* in the Capitoll of Rome, ſurnamed Thundering, which is commended above all others: as alſo *Apollo*,with a crowne or diademe. K

Lyciſcus counterfeited *Lago* a boy,who in maner of a page or lacquey,ſeemed to be double diligent,and after a flattering and deceitfull ſort performed nothing but eie-ſervice. *Lycus* alſo made another boy blowing the coales for to maintain fire. *Menechmus* deviſed to caſt in braſſe a Calfe, turning up the necke and head at the man that ſetteth his knee upon his ſides,& keepeth his body down. This *Menechmus* was a ſingular imageur,and himſelfe wrote a book as concerning his own art. *Naucides* was judged to be an excellent workman by the making of *Mercurie*,& of a Diſcobole or coiter: as alſo for counterfeiting in braſſe one that was a ſacrificing or killing a Ram. *Naucerus* woon credit by making of a wreſtler, puffing & blowing for wind. *Nicerates* had the name for the curious workmanſhip of *Aeſculapius* and **Hygia*,which are to be ſeen at Rome within the temple of *Concord*. *Pyromachus* got great reputation by a coach drawn with four ſteads,&ruled by *Alcibiades* the coachman,all of his making. *Policles* was the maker of that noble peece of work that goeth under the name of *Hermaphroditus*. *Pyrrhus* counterfeited in braſſe another *Hygia* & *Minerva*. And *Phœnix* who learned his art of *Lyſippus*,lively counterfeited the famous wreſtler *Epitherſes*. *Stipax* the Cyprian got himſelf a name by an image reſembling one *Splanchnoptes*: This was a pretie boy or page belonging to *Pericles*,ſurnamed *Olympius*,whom *Stipax* made frying & roſting the inwards of a beaſt at the fire, puffing and blowing thereat with his mouth full of breath and wind,for to make it burne. *Silanion* did caſt the ſimilitude of *Apollodorus* in braſſe: who likewiſe was himſelfe a founder and imageur, but of all others moſt curious and preciſe in his art,he never thought a thing of his owne making well done, and no man cenſured his workes ſo hardly as himſelfe: many a time when he had finiſhed an excellent peece of worke,he would in a miſlike unto it,paſh it in peeces, and never ſtood contented and ſatisfied with any thing when it was all done,how full of art ſoever it was,and therefore he was ſurnamed Mad: Which furious paſſion of his,when *Silanion* aforeſaid would expreſſe, hee made not the man himſelfe alone of braſſe, but L M

* *i.* Good health.

the

A the very image of Anger and Wrath also with him, in habit of a woman. Over and besides, the noble *Achilles* was of his making, a peece of worke well accepted and much talked of. Of his doing is *Epistates*, teaching men how to wrestle and exercise other feats of activitie. As for *Strongylion*, he made one of the Amazones, which for an excellent fine and proper leg that shee had, they call *Eucnemos*; and in that regard *Nero* the Emperour set so great store by this image, that it was caried ordinarily whersoever hee went. This artificer made likewise another brasen image resembling a faire and sweet boy, which for the singular beautie *Brutus* of Philippi so loved, that it was commonly called by his surname *Philippensis*.

Theodorus, who made the Maze or Labyrinth at Samos, caused his owne image to bee cast in brasse, which besides the wonderfull neare resemblance and likenesse to himselfe, was contrived
B so artificially besides, and set out with other fine devises, that he was much renowned for the workmanship, and in the sight of all men it was admirable: he carieth yet in his right hand a file, and in his left he bare sometime (with three fingers) a little prety coach, and the same with four horses at it; which was afterwards taken from the rest, and had away to Prænestę: but both the coach, the teeme of horses, and the coachman were couched in so small a roume, that a little flie (which also he devised to be made to the rest) covered all with her pretie wings.

Xenocrates was apprentice to *Tisicrates*, or as some say, to *Euthycrates*; but whether of the twain was his master, he outwent them both in the number of statues & images that he wrought, and besides compiled bookes of his owne art and workmanship.

Many artificers there were, that by Imagerie delighted to counterfeit in brasse the battailes
C that king *Attalus* and *Eumenes* both, fought against the Galatians or Gallogreekes; and namely, *Isigonus*, *Pyromachus*, *Stratonicus*, and *Antigonus*, and this artisane last named, composed bookes also of his owne art. *Boethius*, although he was a better workman in silver, yet one peece of work hee made in brasse, which had an excellent grace, and that was a child throtling a Goose by the necke.

Of all these peeces of antique worke which I have reckoned up, the most choise and singulat above the rest *Nero* beforetime had by his violent edicts and commaundements caused to bee brought from all parts to Rome, and hee disposed them in diverse roumes of his golden house for to adorne and beautifie the same; but now they be consecrated by *Vespasian* the Emperor, in the temple of Peace, and in other stately buildings and edifices of his.

D Many other excellent artificers there are besides these above rehearsed: but they may bee all raunged in one ranke, and counted for their skill and cunning equall, for a man shall not find one peece of worke of their making, that carieth any singularitie above the rest, and namely *Ariston*, who also was wont to grave and chase in silver, *Callias*, *Clesias*, *Cantharus* of Sicyone, *Dionysodorus* who was an apprentice trained up under *Critias*, *Deliades*, *Euphorion*, *Eunicus*, and *Hecatæus*. As touching famous engravers in silver, I read of *Lesbocles*, *Prodorus*, *Pithodicus*, and *Polygnotus*, who also were most excellent and renowned painters. Likewise, of silversmiths or gravers in silver, wee have *Stratonicus*, and *Scymnus*, who had for his maister *Critias*.

Now will I reckon up those worthie and famous Imageurs, who employed themselves in one and the same kind of workes. In the first place, *Apollodorus*, *Androbulus*, *Asclepiodorus*, and *Aleuas*
E tooke pleasure to expresse the similitudes of learned men and Philosophers. As for *Apelles*, he delighted besides to represent women at their devotions, adoring the gods, and offering sacrifices. *Antigonus* had a grace likewise to represent one *currying and scraping his skin all over the body in a stouve, as also the murderers of the Tyrants abovenamed. *Antimachus* and *Athenodorus* loved to have in their shops the statues of great ladies and noblewomen. *Aristodemus* tooke much pleasure to busie himselfe about the portraying of wrestlers, coaches with two horses set thereto, and a coachman, Philosophers and great clearkes, old matrones, and king *Seleucus*: There is also of his making a *Doryphorus*, resembling one of *Darius* his guard, which is a proper peece of work and a lovely. As touching the *Cephisodori* (for two of them there were) the elder had a great dexteritie in making *Mercurie* fostering prince *Bacchus* in his infancie: He made one also, preaching
F to the people, and casting forth his armes; but what person of qualitie he should be, it is not certainely knowne: the younger was wont to represent the Philosopher. *Colothas*, who joined with *Phidias* in the making of *Iupiter Olympius*: He delighted also to be doing with the images of Philosophers. So did *Cleon* and *Cenchramis*, *Callicles*, and *Cephis*. As for *Calcosthenes*, hee busied and amused himselfe in the counterfeits of Comœdians, players of Enterludes, and champions. *Dahippus*

*Perixuomenon the same that Apoxuomenon.

hippus had a very good hand, in making one ſcraping and rubbing his bodie in an hotehouſe. G
Daiphron, *Democritus*, and *Dæmon*, were as cunning and perfit in the perſonages of Philoſophers and Sages. *Epigonus* would have his hand in all thoſe workes in manner which I have rehearſed, and laboured to imitate thoſe artificers: but hee ſurpaſſed them all in a Trumpetter of his owne deviſing; and a little infant, who ſeeing the mother ſlaine, made toward the dead corps, and hung about it as if it would play and be plaied withall, full pittiouſly to behold. *Eubolides* made one, as if he were counting upon his fingers. *Mycon* his cunning was moſt ſeene in the counterfeiting of wreſtlers and ſuch as practiſe feats of activitie: and *Menogenes*, in making chariots with foure horſes. *Niceratus* likewiſe enterpriſed all manner of workes wherein others were beſt ſeen: and beſides repreſented the perſonage of *Alcibiades*, together with his mother *Demarete*, as ſhee ſacrificed with lampe light burning by her. *Piſicrates* ſhewed much skill in a chariot with two horſes, H
wherein he beſtowed **Pitho* ſitting in the habit of a woman: The images of *Mars* and *Mercurie* alſo, which ſtand at Rome in the temple of *Concordia*, be of this mans making. As for *Perillus*, there is no man commendeth him for his workmanſhip, but holdeth him more cruell than *Phalaris* the Tyrant, who ſet him a worke, for that he deviſed a braſen Bull, to roſt and frie condemned perſons in; aſſuring the Tyrant, that after the fire was made under it, they would when they cried ſeeme to bellow as a Bull, and ſo rather make ſport than move compaſſion: but this *Perillus* was the firſt himſelfe that gave the hanſell to the engine of his owne invention, and although this was crueltie in the Tyrant, yet ſurely ſuch a workman deſerved no better a reward, & juſtly he felt the ſmart of it: For why? The art and cunning of founderie, which of all others is moſt civile & agreeable to our nature, and which had beene emploied ordinarily in repreſenting the perſonages of I
men and gods, this monſter of man abuſed, and debaſed to this vile and unnaturall miniſterie of tormenting man. Would one have ever thought, that after ſo many wittie and worthy men who had travelled in this ſcience to bring it to ſome perfection, all their labours ſhould turne in the end to this proofe, for to make inſtruments thereby of torture? And certes, there beeing many peeces of his workemanſhip, they bee kept and ſaved for this cauſe onely, that as many as ſee the ſame, may deteſt and abhorre the wicked hand that made them. But to proceed forward to other workmen in this kind. Of *Sthenis* making are the images of *Ceres*, *Iupiter*, and *Minerva*, which at Rome are within the temple of *Concord*. The ſame man tooke pleaſure in counterfeiting ancient dames and matrons, weeping, praying, and offering ſacrifice. *Simon* [of Ægina] was very good at the making of a dog and an archer. *Stratonicus* that famous cutter and engraver, was never well K
but when he pourtraied ſome Philoſopher or other: no more than *Scopas*, both the one and the other. As for wreſtlers and champions, armed men, hunters, and ſacrificers, they were the onely workes that theſe artificers following delighted moſt in, to wit, *Batton*, *Euchir*, *Glaucides*, *Heliodorus*, *Hicanus*, *Leophon*, *Lyſon*, *Leon*, *Menodorus*, *Myagrius*, *Polycrates*, *Polydorus*, *Pythocritus*, & *Protogenes* (who alſo was a moſt excellent & renowned painter, as I will hereafter ſhew more at large) alſo *Patrocles*, *Polis*, *Poſidonius* born at Epheſus, who likewiſe chaſed and engraved in ſilver moſt finely, *Periclimenus*, *Philon*, *Simenus*, *Timotheus*, *Theomneſtus*, *Timarchides*, *Timon*, *Triſias*, & *Thraſon*. But above all other, *Callimachus* is the workman of greateſt note, in regard of a by-name given unto him, and that was *Cacizotechnos:* and well he might be ſo called, for he would alwaies be finding fault with his owne workmanſhip, and never could ſee when to make an end, thinking ſtill L
that he had not beſtowed art ynough upon that he had under his hand. And ſo he brought forth little or nothing perfect in the end: A notable and memorable example to teach all men not to be over curious and exquiſit in any thing, but to hold a meaſure in all. And there is a daunce of Lacedemonian women of his making: a peece of worke which he went about alſo to amend, and when he thought to make it better, he marred it cleane, ſo that it loſt all the grace it had before. Some ſay, that this *Callimachus* had been in former time a painter. And ſince I have entred ſo far into this Treatiſe of ſtatues and images, I may not paſſe over in ſilence, but note (as it were) by the way one thing of *Cato*, although haply it may be thought but a meere vanitie: In that expedition or voyage wherein Cyprus was conquered and reduced under the dominion of Rome, hee made port-ſale of all the pillage taken there, ſave only one ſtatue of *Zeno*, not for the excellencie of the M
matter, for it was but braſſe, nor yet for the art and curious workmanſhip thereof, but for that it was the image of a Philoſopher. In this diſcourſe of ſtatues and images, I muſt not paſſe by one, although it is not certainely knowne who was the maker of it; and this is *Hercules* in his ſhirt and other habit that he wore upon the mount Oete: ſtanding now at Rome neare unto the publicke

pulpit

**Suada*, *i.* Perſuaſiõ, or *Diana* as ſome think. Some read *Piſto*, *i.* the goddeſſe of Credulitie.

A pulpit called Rostra: Made he is (whosoever did it) with a grim, sterne, and sower countenance, and such indeed as doth bewray and feele those intollerable torments which the bodie sustained by that poisoned shirt [sent unto him from *Deianira*.] Vpon this statue there stand three titles or inscriptions: the first is this; *L. Luculli Imperatoris de Manubijs*, *i. L. Lucullus* lord Generall, erected this statue out of the spoile of the enemies: the second, *Pupillus Luculli filius ex S. C. dedicavit*, *i.* The sonne of *L. Lucullus*, being orphan or ward, dedicated this, by an order or act from the Senat: the third, *T. Septimius Sabinus Ædilis Curulis, ex privato in publicum restituit*, *i. T. Septimius Sabinus*, Ædile Curule for the time being, hath from a privat house caused it to stand againe in publicke place. This is the image of that worthie *Hercules* that fought so many battails, endured such hard conflicts and labours, and was so highly honoured.

B Now is it time to return to the different kinds and sundry temperatures of brasse, from which I have digressed: first and foremost therefore this is to bee noted, That in Cyprian brasse or copper there is to be considered, one sort which is named Coronarium, and the other that they call Regulare; and both the one and the other will abide the hammer & be brought into thin plates. As for the Coronarium or Laton, when it is reduced into thin leaves or plates, and then coloured or rubbed over with the gall of an oxe, it looketh like gold and maketh a faire shew in those coronets that players weare; whereupon it tooke the name Coronarium: the same, after that to everie ounce of it there be put six scrupuls of gold, and be reduced into a verie thin foile, resembleth the colour of fire, like a rubie or carbuncle stone. As touching this brasse, it is found also in other mines of mettall, like as the pot-brasse Caldarium: this onely is the difference, that this
C Caldarium will melt only, for under the hammer it will breake; whereas the other sort of copper named Regulare, yeeldeth to the hammer and will be drawne out, whereupon some there be who call it Ductile, *i.* battable; and such is all the kind of copper or Cyprian brasse. That also which is found in the mines of other mettals, by art refined, differeth from the foresaid pot-mettall, for out of what mine soever it commeth, after that the drosse and imperfections therof be throughly purged by the fire, being thus (I say) cleansed, it becommeth Regulare and will abide the hammer. As for all other sorts besides the Cyprian brasse abovenamed, the Campane brasse is counted best: like unto which, there is much in other parts also of Italie, and in the provinces: but to everie [hundred pound of brasse] they put eight pound of lead: then they boile it as it were and melt it againe with a soft fire, for want and scarsitie of wood and fuell. And what difference there
D may be in that regard, it is most of all seene in the heart of Fraunce, where it is commonly melted (for lacke of other fuell) among stones made red hot: for by reason that this is a swift & scorching fire, it becommeth blacke and brittle withall: besides, they melt it but once: but surely to doe so oftener, maketh verie much for the goodnesse thereof.

Chap. IX.

The difference in Brasse: the divers mixtures thereof: and how Brasse should be kept.

E MOreover, it were not amisse to note thus much also, that all kind of brasse melteth best in coldest weather. Now there is another temperature of brasse which serveth for founders, imageurs, and brasen tables, called thereupon in Latine, Statuaria and Tabularis, which is made in this manner following: First, the masse, ore, or stone as it commeth out of the mine, is melted in the bloome-smithie; and so soone as it is melted, they put thereto a third part of the brasse Collectaneum, that is to say, broken peeces or old vessels that have been used, and bought up here and there. In the choice whereof, this care would bee had, that for to give unto this temperature the kind seasoning as it were, which peculiarly it requireth, there would be gotten such pottain or old mettall which is overworne, and by ordinarie occupying and using to the hand; bright-shining, and as one would say tamed, made gentle, and pliable. It would not be forgotten also, to everie hundred pound weight of the said melted ore, to mix twelve pound and a
F halfe of tin. But to have a kind of brasse mettall that is most tender and soft, there must be given unto it that mixture or temperature which is called Formall, namely, by putting thereto of ordinarie lead a tenth part, and of tin a twentith part; and by that means especially it taketh that colour which they call Grecanicke. The last temperature is that, which in Latine they call Ollaria, as one would say, the pot-brasse, for it taketh the name of that vessell wherto it is most emploied;

and this is by tempering with every hundred pound weight of braſſe, three or four pound weight of argentine lead or tin. To Cyprian braſſe or copper, if you put lead, you ſhall have that deepe red or purple colour which giveth the tincture to the robes that ſtatues are pourtraied with. Moreover, this is to be noted, that the more you doe ſcoure any veſſels of braſſe, the more are they ſubject to ruſt and ſooner will they gather it, than if they were neglected and not medled withall; unleſſe they be well annointed with oile. It is ſaid, that a verniſh made of tarre, is ſingular for to preſerve and ſave any braſſe from ruſt. To conclude, braſſe hath ſerved many a yeere agoe, for the perpetuitie of memorials and regiſters, as we may ſee by thoſe braſen tables here in Rome, wherein be cut and engraven all our publicke laws and conſtitutions. G

Chap. x. H

Of Cadmia or Braſſe ore, and the medicines wherein it is uſually employed.

THe mines and veins of braſſe ore do many waies furniſh us with medecines: a good prooſe whereof this may be, that any ulcers be ſooneſt healed there: but the moſt medicinable of all minerals that belong to braſſe-mettall, is Cadmia [artificiall.] And verely there is a kind of Cadmia made in the furnaces where ſilver is fined, of a whiter colour and leſſe ponderous, but nothing comparable to that which commeth from the braſſe furnaces. And ſundrie ſorts there be of Cadmia: for the verie ſtone of which they make braſſe, is called Cadmia, and as it is neceſſarie for founders, ſo it is of no uſe at all in phyſick. Now is there a Cadmia beſides which I is made in the furnaces, and ſo called, but the reaſon thereof is farre different: and this kind of Cadmia commeth of the fineſt and thinneſt part of the ore or matter in the furnace, caſt up aloft by the flame and blaſt, ſticking to the rouſe or ſides of the furnace, higher or lower according to the proportion of the lightneſſe that it carrieth, more or leſſe. The fineſt and the floure as it were of Cadmia, is found in the verie mouth of the furnace, whereas the flames * doe ſtrive to get forth: The Greeks call it Capnitis, for that it is ſmokie and burnt, and for the exceeding levitie thereof reſemble flying cinders. That which is more inward and hangeth downe from the coping and vauted rouſe of the furnace, is the beſt: and in that reſpect, becauſe it hangeth ſo as it were by cluſters, they give it the name Botryitis: heavier this is than the former, but lighter than thoſe that follow after. As for the colour thereof, it is in two ſorts: that which you ſee of a dead hew like aſhes, is the woorſe, whereas the red is the better; the ſame alſo is brittle and will ſoone crumble ſmall: for eyeſalves and collyries reputed ſoveraigne. A third kind of Cadmia ſticketh by the way, to the ſides and walls of the furnace; for by reaſon of the heavineſſe and profunditie, it was not able to mount up to the bending rouſe of the furnace: this the Greeks call Placitis: and well it may bee ſo named; for a cruſt rather it is than a skalie ſubſtance: breake it, you ſhall find many colours in it: and this Cadmia for to heale ſcabs and ſcurfe, as alſo to cicatrice or skin a ſore, is better than the former. Out of this kind, there proceed other twaine; to wit, Onychitis, which in the outſide is after a ſort blewiſh, but within, it reſembleth the flecks or ſpots of the onyx ſtone; and Oſtracitis, blacke throughout, of all the reſt moſt foule and groſſe, howbeit fitteſt for wounds. K L

* *Eluctantur*, or rather, *Eructantur*, *i.* are breathed and ſent forth.

Generally, that Cadmia, of what kind ſoever, is beſt, which is found within the furnaces of Cypros: this the Phyſicians doe burne a ſecond time with pure coles; and when it is calcined and turned to aſhes, they quench it with Amminean wine, if they meane to prepare it for plaſtres; but with vinegre, for ſcabs and ſcurfe. Some there be, who after it is ſtamped groſſe, burne or calcine it in an earthen pot, then waſh it well in a mortar, and afterwards drie it. *Nymphodorus* taketh the verie ſtone or the ore as it lyeth in the mine, the heavieſt and moſt compact that may be found, which he burneth among coles; and after it is ſufficiently burnt, quencheth it in wine of Chios: he beateth and punneth it then againe, anon he driveth or boulteth it through a linnen cloth, and grindeth it finer in a morter: this done, ſoone after he ſteepeth and ſoketh it well in raine water, and that which ſettleth in the bottome he ſtampeth: and this hee doth, untill M ſuch time as it be like ceruſe or white lead, and will not craſh betweene the teeth. The ſame manner of preparing uſeth *Tollas*, but he choſeth the pureſt and brighteſt ſtone that he can get.

The medicinable operations of Cadmia, bee, to drie, to heale throughly, to ſtay fluxes, to cleanſe the filthineſſe in the eyes, and to ſcoure the pin and web, to extenuat any roughneſſe;

A and in one word, to worke all thoſe effects which I ſhall attribute hereafter to lead.

Furthermore, braſſe it ſelfe may be burnt; and being ſo prepared, it ſerveth for all thoſe purpoſes beforenamed: over and above, it cureth the pearls, filmes, and skarres in the eyes: if it be incorporat with milke, it healeth the ulcers in the eyes: the ſame likewiſe they uſe to grind upon hard ſtones, after the manner of the Ægyptian collyrie: taken as a lohoch inwardly with honey, it cauſeth vomit. Now as touching copper, the manner is to burne it in unbaked earthen pans, with the like weight of brimſtone; but all the breathing holes of the furnace ought to bee well cloſed and luted up where they muſt ſtand, untill ſuch time as the ſaid pans be throughly baked hard: ſome put ſalt thereto: others in ſtead of brimſtone take alume: and there be againe, who uſe neither the one nor the other, but ſprinkle it well with vinegre onely: when it is thus calcined,
B they pun it in a morter of Thebaïcke marble, and then waſh it in raine water. Howbeit, this firſt lotion of it maketh it but weake and of ſmall effect: and therefore it had need of a ſecond waſhing, in a greater quantitie of water, and to be braied againe therein, and left ſo ſtanding untill it be ſetled. This would be reiterated often, untill ſuch time as it be brought to looke like unto Minium: after that, it ought to be dried in the Sun, and ſaved in a braſen box.

Chap. xl.

Of the droſſe or refuſe of braſſe: of the skales of braſſe: of Verdegreace or Spaniſh greene: of Stomoma: of Verdegreace which is the ruſt of Braſſe, and of Hieracium.

C THe droſſe of Braſſe is waſhed after the ſame manner, but of leſſe effect it is than Braſſe it ſelfe: howbeit the floure of braſſe or verdegreace, is much uſed in phyſicke: and engendred it is, when braſſe is melted by much blowing, and then transferred out of the furnace into other receptacles; and there, are ſhaken out certaine skales of millet, and this they call Flos æris, *i.* Verdegreace. Now theſe skales uſe to fall off, when as the maſſes of braſſe be cooled with water and be red. Likewiſe of the ſame maſſes, there is made that which they call Lepis; and thus the verdegreace may be ſophiſticated, ſo as the ſaid Lepis or skales bee ſold for it. Now theſe skales come, by being driven and ſmitten off from thoſe nails which they uſe to forge of the ſaid maſſes and lumps of braſſe, and all theſe moſt commonly are found in the Cyprian forges: herein on-
D ly is the difference; that the foreſaid skales are driven forcibly and ſmitten from the ſaid pains or maſſes of braſſe, whereas the floure of verdegreace falleth off by it ſelfe. And yet there is a ſecond kind of theſe skales more fine and ſubtile than the other, to wit, driven and ſmitten from the verie outſide and uppermoſt part of the braſſe, and this they call * Stomoma.

Howbeit, Phyſicians in theſe daies (with reverence to their profeſſion and with their good leave be it ſpoken) are ignorant wholly of all theſe things; yea and the greater part of them bee not ſo much as acquainted with the tearms and bare names, (ſo farre be they from the true compoſition of medecines:) and yet in times paſt, it belonged properly unto Phyſicians, for to be acquainted with the tearms of all ſimples, and to be perfect in the knowledge of them. But our Phyſicians in this age, when they are to make any compoſition of ſimples, they have recourſe
E ſtraightwaies to their books to be directed by them, that is to ſay, they trie experiments by the hazard of their poore patients; and there finding the names of this and that, they ſet downe a receit, and for the making therof truſt the Apothecaries, as alſo for the ingredients; which commonly they doe ſophiſticat and corrupt by all deceitfull means that poſſibly they can deviſe; ſelling their emplaſtres and collyries that are old made, and ſuch drugs as are paſt all goodneſſe, ſerving the bills of the Phyſicians with the verie refuſe of their ſhop. And thus the deceitfull wares that they have, they rid their hands of, to the diſcredit of the Phyſician, and daunger of the ſicke.

But to come againe unto our skales, and floure of braſſe or verdegreace; the manner is, firſt to calcine both the one and the other, either upon earthen veſſels or braſſe pans; then, to waſh the ſame, as is beforeſaid, and for the ſame uſes. But over and above, theſe being prepared thus
F accordingly, are ſingular for the carnoſities and excreſcences within the noſthrils, or the fundament: for hardneſſe alſo of hearing, if they be blowne into thoſe parts by meanes of a pipe: and the ſores or cankers of the mouth they doe heale, by application of their powder: this powder alſo taketh away the inflammations and accidents of the tonſils or almonds about the throat, if it be tempered and incorporat with honey, and uſed in a collution or gargariſme. There is be-

* *Stomoma* is nothing elſe but ſteele, and therfore *Plin.* here doth err, like as in moſt of this chapt.

ſide, a ſcale that commeth of laton or white braſſe, farre better than that which the red braſſe or copper doth yeeld. G

Moreover, there is a deviſe that ſome uſe, namely, to let firſt the nails and panes of braſſe to lie wet in the urine of a boy: others, ſo ſoone as the skales bee driven off, bray them, and afterwards waſh them in raine water; which they uſe to give for the dropſie, to the weight of two drams in one hemine of honeyed wine; and beſides they make a liniment with it and floure, for to uſe outwardly to the belly.

*Which ſome take to bee verdegreace. * *Æruginis raſilis.*

As touching the ruſt * of braſſe, great uſe there is of it in phyſicke: but it commeth after many ſorts; for firſt and foremoſt, it is found ſticking (in manner of the floure aforeſaid) unto the ſtone or ore out of which braſſe is tried, in ſuch ſort, as it muſt be * ſcraped from it before a man can have it. Alſo it is made after an artificiall manner, by hanging certaine plates of laton driven H full of holes, and hung in a pipe or bartell over vinegre; but the ſame ought to bee cloſe covered and ſtopped with a lid of braſſe, ſo as the ſaid plates doe not touch the vinegre: and verely, verdegreace thus made, is farre better than of skales in the ſame wiſe uſed. Some there bee that take veſſels of white braſſe or laton, and put them in earthen pans, where they ſuffer them to lye in vinegre for ten daies togither, and then ſcrape off the verdegreace or ruſt that is gathered upon the ſaid laton. Others there are who cover the ſaid veſſels of laton in the refuſe of grapes after they be preſſed, (skins I meane and ſtones;) and after ten daies, as is aforeſaid, ſcrape off the verdegreace which they find upon the braſſe. There be againe, who take the fine duſt which the file fetcheth from braſſe, and ſtrew the ſame in a veſſell of vinegre, ſtirring it with ſpattules or ladles oftentimes in a day, untill it be reſolved into the vinegre & conſumed: and yet many thinke I it better to worke and ſtampe the ſaid file-duſt with ſtrong vinegre in a braſen mortar, for to gather verdegreace. But the ſpeedieſt way of engendring the ſaid ruſt of braſſe or verdegreace, is to take the cuttings, parings, or ſmall peeces of laton plates, ſuch as be emploied about coronets, and to put them in vinegre: and you ſhall have divers, who will not ſticke to ſophiſticat verdegris, (ſuch eſpecially as is brought out of Rhodes) by mixing it and the powder of marble togither; others, with the pumiſh ſtone pulverized, or elſe with gum. But the cunningeſt device that they have to falſifie it and deceive chapmen by, is to mingle vitrioll among: for all the other deceitfull tricks bee ſoone found out by the teeth, becauſe a man ſhall feele the verdegreace to craſh and grate betweene them like grit, which he ſhall not perceive if it be ſophiſticat with vitrioll: howbeit, this ſophiſtication alſo and fraudulent caſt, may be ſoone detected and found out by an K experiment made with a ſlice or fire-pan of yron made red hote in the fire: for caſt upon it the right and true verdegreace indeed, it will hold and keepe the owne colour ſtill; but if it bee corrupted with vitrioll, you ſhall ſee it turne red. You may diſcover likewiſe the fraud aboveſaid with

* Of the reed *Papyrus.*

* paper, tempered beforehand and ſoked in gall-nuts; for beſmeare therewith the verdegreace that is falſified, it will quickely become blacke. The eye alſo will ſoone bewray the falſhood that is uſed therein, for if it bee naught, a man ſhall perceive it to looke with a weake greene colour, nothing full nor freſh. But be the verdegreace true or falſe, the beſt way is, before it be emploied in phyſicke, after it bee dried, to calcine it upon a new earthen pan that never was occupied, and in the burning to turne it often with a ſlice or ſpattule, untill ſuch time as it be reduced into light cinders; and then after it is finely pulverized, to lay it up for uſe. Others prepare it after ano- L ther ſort; they put it in an earthen pot unbaked, and ſet the ſame into an oven, where they let it ſtand to bee calcined ſo long untill the ſaid pot of clay bee well and throughly baked. Finally, there be, that before they uſe verdegreace, put thereto the * male frankincenſe, the beſt that can poſſibly be had.

* *Olibanum.*

The manner alſo is to waſh verdegreace before it be occupied, after the ſame order as Cadmia is uſed. Beeing thus made and prepared as is aboveſaid, it is excellent to bee put into eye-ſalves or collyries, for by a * mordicative qualitie it helpeth weeping and watering eyes: in which regard, neceſſarie it is that it be waſhed firſt with pencils well bathed in hot water, ſo long untill it have loſt that corroſive qualitie.

* *Græce* Δακρυικὸν, which *Plinie* tranſlateth *delachrymationibus mordendo proficiens:* which alſo may be turned thus, It helpeth watering eyes proceeding of ſome fretting humors.

As touching Hieracium, a compoſition it is or collyrie ſo called, and made in this manner: M Take foure ounces of Sal Ammoniacke, of Cyprian verdegreace two ounces, of ſhoemakers blacke, or that copperaſſe which the Greekes name Chalcanthum as much, that is to ſay, two ounces; of Myſy or yellow vitrioll one ounce, and of ſaffron ſix: Let all theſe bee ſtamped togeather and tempered in the vinegre of Thaſos untill they bee concorporat, and then reduce them

into

A into trochiques. A ſingular collyrie or eyeſalve this is to withſtand the beginning of pearls, cataracts, and ſuch accidents of the eyes; to diſcuſſe alſo the webs that come over the ſight, to levigat the roughneſſe of the tunicles, to diſpatch the white skars, and in one word to cure all the infirmities of the eyelids. As for verdegreace that is not calcined at all, it is excellent good to be put into vulnerarie or healing plaſtres: the ſame alſo is of a wonderfull operation to cure the exulcerations of the mouth or the gumbs; the lips alſo exulcerat it healeth, being reduced into a liniment with oile: but if you put wax thereto, it doth mundifie, and withall skin and heale perfitly. Verdegreace is proper to eat away and conſume the calloſitie growing in a fiſtula, and in thoſe infirmities which are incident to the ſeat or fundament, whether it be brought into a liniment with gum Hammoniacke and ſo applied, or elſe in forme of a collyrie, that is to ſay, a tent
B thruſt into the hollow fiſtula. The ſame verdegreace incorporat with a third part of the true roſin called Terpentine, is ſoveraigne for foule leproſies and wild-fires.

Chap. XII.

Of [1] *Scolecia*, and [2] *Chalcitis*, of [3] *Myſy*, [4] *Sory*, and [5] *Chacanthum*.

[1] A kind of verdegris or ruſt of braſſe in manner of a worme, as *Pliny* taketh it.
[2] The floure of coppereſſe, whereof is made vitrioll, as ſome think.
[3] *Braſavolus* holdeth it to be vitriol Romane: others take it for yellow coppreſſe.
[4] Duskiſh or aſh-colour coppreſſe.
[5] Vitrioll.

ANother ſort there is of Braſſe-ruſt or Verdegreace, which commonly is called Scolecia: this is made of alume, ſalt or ſalnitre, of each a like weight, ſtamped well togither with the ſtrongeſt white wine vinegre that can be gotten, in a mortar of Cyprian braſſe or copper: and this muſt not be done but in the hoteſt daies of the yeere, to wit, about the riſing of the Dog-
C ſtarre. Now muſt all the ingredients aforeſaid bee punned and incorporat togither, untill ſuch time as the maſſe become green, and that it gather and draw togither in manner of * crawling wormes, whereupon it taketh the name Scolecia. But if ſo bee, that this manner of working and making it, chaunce to faile and doe not well, for to amend the ſame, the two parts of vinegre which entred into the mixture, ought to be tempered with as much urine of a boy under foureteene yeers of age. Now if you would know the medicinable effects and vertues of this kind of verdegreace, both it and the artificiall Borax beforeſaid (which I named Santerna) be of the ve-
E rie ſame operation that the ordinarie ruſt of braſſe or verdegreace, called in Latin Ærugo. There is a kind of Scolecia naturall or minerall of it ſelfe, without addition of any thing elſe whatſoever; whereof I purpoſe to ſpeake in this place, and the ſame is ſcraped from the ſtone or ore of
D which commeth braſſe. There is a ſtone lying in the mine which they name Chalcitis, out of which alſo (with burning) they excoct braſſe: differ it doth from Cadmia; for Chalcitis is hewed out of mines that lye above, verie ebb and expoſed to the aire, whereas the other is digged from under the ground in thoſe mines that lie hidden. *Item*, Chalcitis (as beeing of a tender and ſoft nature) preſently will crumble into peeces, ſo as it ſeemeth to bee a certaine fine moſſe concreat and gathered togither. Alſo, there is another difference betweene theſe two Marcaſſins; for that, Chalcitis containeth in it three ſeverall kinds of matter, to wit, Braſſe, Myſy, and Sory; of which I purpoſe to ſpeake ſeverally by themſelves in their due place. Now this Chalcitis lyeth within the braſſe mine in long veines: that which is of a yellowiſh colour like honey, full of ſmall veins running here and there, brittle and apt to crumble, and not of a ſtonie hardneſſe, is coun-
E ted the beſt: the freſher alſo and more newly gathered that it is, the more effectuall and wholeſome men take it to be; for that beeing long kept, it will grow into the nature of Sory. Beeing thus in the right nature, it hath a faculti (if it bee pulverized) to conſume the excreſcenſe of proud or dead fleſh in ulcers, to ſtaunch bloud, to repreſſe alſo the accidents befalling to the gumbs, uvula, and tonſils: the ſame put up into the naturall parts of a woman within a locke of wooll in manner of a peſſarie, helpeth the infirmities of thoſe places: but if it be tempered and incorporat with the juice of porret, it ſerveth to be put into thoſe plaſtres which are appropriat to the ulcers and ſores of the privities or members of generation. Now if you ſteepe it in vinegre, and let it lie ſo infuſed within an earthen pot well luted with beaſts dung, for the ſpace of fortie daies, it will come to the colour of ſaffron: put then unto it of Cadmia ſtone the like quanti-
F tie in weight, you ſhall have that medecine which is called Pſoricum. Alſo, if in this compoſition you put two parts of Chalcitis to one third part of Cadmia, and ſo temper them togither, this foreſaid medecine will be more quick and ægre: but in caſe you would have it yet more mordicant and ſtronger in operation, let the ſaid ingredients be tempered rather with vinegre than wine. Calcine the ſame or torrifie it, you ſhall find it more effectuall in all operations aforeſaid.

* It ſeemeth that *Plinie* doth here err, by readiag in *Dioſc.* σκωλήκια, for κόλικες; & for ἰος κολικίας, σκωλικία: for the ſaid mixture is to be reduced into certaine trochiſques or thin cakes called κολικες, & not into the form of worms σκωλήκες.

* i. The veine or minerall, whereof commeth the duskish vitrioll.

As for * Sory, that which is brought out of Ægypt is counted best, and farre better than the Cyprian, Spanish, or African: nevertheless, some hold that which commeth from Cypresse to be more appropriat to the cure of the eyes. But of what countrey soever it be, the principall is that which to smell unto is of the rankest and most stinking savour: the same also in the bruising will grow blacke and be uncteous or fattie, and such lightly is hollow in manner of a spunge. A minerall this is altogither hurtfull to the stomacke, and so contrarie unto the nature of it, that to some the verie smell thereof is enough to overturne it and to cause vomit: and especially the Ægyptian Sory is of this operation. That which commeth from other nations, when it is broken or braied, shineth againe. G

Touching Mysy, it is of a more hard and stonie nature than Sory; but good it is for the toothach, if either it bee held in the mouth, or a collution bee made therewith to wash the teeth and gumbs: also it healeth the grievous and irkesome sores of the mouth, yea though they grow to be cancerous and corrosive. The manner is to burne and calcine it upon coles of fire as Chalcitis. Some nevertheless have written, that Mysy is engendred by the means of a fire made with pine wood, in the hollow veines or mines of brasse ore: and they hold, that the cinders or ashes of this pine fewell, beeing mingled with the yellow greins or floure of the said mettall, is that which begetteth Mysy. But the truth is, of the foresaid stone or ore it is engendred naturally: howbeit, a thing it is by it selfe gathered, distinct and separat from it apart: and the best is that which is found in the mines and forges of Cypresse. You shall know it by these signes: breake it (for crumble it will) there appeare within it certaine sparkes shining like gold: and in the braying or stamping, it runneth into the nature of a sand or earth, like unto Chalcitis. This Mysy is the minerall that they put to gold ore, when it is to be tried and purified. H I

To come unto the medicinable vertues thereof: beeing infused or powred into the eares with oile of roses, it cureth their running with matter: the same beeing applied in a frontall within wooll to the head, easeth the ach thereof: it doth extenuat also and subtiliat the asperities of the eyes, such especially as bee inveterat and have continued long: but soveraigne it is found to be for the inflammation or swelling of the tonsils, for the squinancie, and all impostumat sores growne to suppuration. For which purposes, prepared it would be in this wise, and after this proportion: Take of it sixteene drams, seeth the same in one hemine of vinegre with some addition of honey, untill it begin to yeeld and relent; and in this manner ordred, it serveth in cases aforesaid: but whensoever need requireth to mollifie the violence thereof, and make it more mild, it were good to wet it with some sprinckling of honey. If there be a lotion or fomentation made with it in vinegre, it doth consume and eat away the hard callositie in fistuloes, & fortifieth greatly the collyries or tents to be made thereof, and put into the concavitie of the sore: it serveth also for the collyries that be eyesalves: it stauncheth bloud, represseth the malice of fretting humors in corrosive ulcers and such as doe putrifie: the excrescense of proud or ranke flesh it taketh downe and consumeth: a peculiar propertie it hath to cure the accidents of the members of generation in men; and withall stoppeth the immoderat flux of the moneths in women. K

As concerning Vitrioll, which we call in Latine Atramentum Sutorium, that is to say, shoemakers blacke, the Greeks have fitted it with a name respective unto brasse, and by a neere affinitie thereunto call it Chalcanthum: and verely there is not a minerall throughout all the mines, of so admirable a nature as it is. There have been found in Spaine certaine pits or standing pooles, containing a water of the nature of vitrioll: they used to seeth the same, putting thereto of other fresh water a like quantitie, and poure it into certaine troughs or broad keelers of wood: over these vessels, there be certaine barrs [of yron] or transoms overthwart, lying fast that they cannot stirre, at which there hang downe cords or ropes with stones at the end stretching them outright, that they reach to the bottome of the said decoction within those keelers, to the end that the viscous substance of the water may gather about those cords, which you shall see sticking fast thereto in drops, congealed in manner of glasse, and it doth represent as it were the forme of grapes; and that is Vitrioll. Beeing taken foorth and separated from the cords aforesaid, they let it drie for the space of thirtie daies. In colour it is blew, & carieth with it a most pleasant and lively lustre, so cleare, as a man would take it to be transparent glasse. Of this beeing infused in water, is made that blacke tincture which curriers and corviners occupie in colouring of their leather. This Vitrioll is engendred many waies of the copperesse veine within the mine, being hollowed into certaine trenches: out of the sides whereof you shall see in the middest of L M

A Winter when it is a froſt, certaine yſickles depending, as the drops deſtilled and grew one to another: whereupon this kind of Vitrioll they call Stalagmias, and a purer or clearer thing there is not. But looke what part thereof is whitiſh of colour, but not tranſparent, and the ſame enclining to the wall flower or *white Violet, the ſame they call Leucoion. There is a Vitrioll likewiſe made artificially in certaine receits and concavities (digged of purpoſe in the ſtonie mines of Coperoſe) by occaſion of raine water there congealed, which had been conveighed into them, and gathered a viſcous ſlime or mud in the paſſage. Alſo there is a caſt to make it in manner of ſalt by letting freſh water into ſuch hollow receptacles, and permitting the ſame to ferment in the ſunne when he is at the height and full ſtrength of his heat in the Summer, untill it be gathered & hardened as ſalt. And therefore ſome there be who make two ſorts of Vitrioll, to wit, the Naturall or
B Minerall, and the Artificiall: This that is made by the induſtrie and art of man is paler than the other; and looke how much the colour is abated, ſo much inferior it is in goodneſſe. The Cyprian Vitrioll is thought beſt for to be employed in Phyſicke. For, to expell the wormes out of the bellie, it is given unto the patient to the weight of one dram in honey, after the manner of an electuarie. If the ſame be diſſolved and conveighed up into the noſthrils, it purgeth the head. In like manner it cleanſeth the ſtomacke, in caſe it be taken with honey or honied water. The aſperitie of the eyes, their paine, and the dimneſſe or miſts overgrowing the ſight, it diſpatcheth: and healeth the ſores in the mouth. It ſtaieth bleeding at noſe, and the immoderat running of the hæmorrhoids. It draweth forth ſpels of broken bones: and tempered with the ſeed of Henbane, it ſtoppeth the courſe of a rheume running to the eyes, if it be laid in a cloth to the forehead in
C manner of a frontale. Of great effect is it in plaſtres, both for to mundifie wounds and to conſume the excreſcence of fleſh in ulcers. If the Vvula be fallen, it putteth it up againe, by touching it only with the decoction thereof. Moreover, being incorporat with line ſeed, it is ſingular good to be applied aloft upon plaſtres, for to mitigat paine. Of this kind, that which is white is preferred before any that are of a yellowiſh colour like *wall-flowers aforeſaid. Moreover, if it be blown into the eares by the meanes of a pipe, it doth remedie the hardneſſe of hearing. A liniment made of Vitrioll alone, healeth up wounds, but it draweth the skar too neare together: in regard of which aſtringencie of Vitrioll, there hath been an invention deviſed of late, to caſt the pouder of Vitrioll into the mouths of Beares and Lions when they are to be baited: for ſo great a knitter & binder it is, that it will draw their chawes together in manner of a muzzle, that they ſhall not bee
D able to bite.

*Viola alba.

*Violareis. He meaneth thoſe that reſemble *Leucoion*, and which he called before by that name.

Chap. XIII.

Of Pompholyx. Of Spodos, Antiſpodos, and of Diphryges. Of the Trient of Servilius.

THere be found over and beſides in braſſe ſmithies or furnaces, thoſe matters which they call Pompholyx and Spodos: and the difference of the one from the other, conſiſteth in this, that Pompholyx requireth waſhing for to be prepared; Spodos never commeth into water or liquour. And yet ſome diſtinguiſh them otherwiſe, calling the whiteſt and lighteſt part, Pom-
E pholyx: holding opinion, that it is nothing elſe but the very cinders of braſſe, or the Calamine ſtone Cadmia, whereof braſſe commeth: whereas Spodos (ſay they) is blacker and more weightie than Pompholyx, as being ſcraped from the wals and ſides of the furnaces; among which you ſhall ſee many times groſſe ſparkes, yea, and otherwhiles coales entermingled. Well, this Pompholyx beeing tempered or ſoaked in vinegre, ſmelleth of braſſe: and if a man touch it at the tongues end, hath a horrible taſt that goeth againſt ones ſtomack. Proper it is to enter into thoſe compoſitions which be ordained for the eyes, for it helpeth all the infirmities incident thereto: and in one word, ſerveth for the ſame purpoſes that Spodos dooth: herein onely lieth the difference, that Spodos is thought to be more mundificative, by reaſon that the ſtrength of Pompholyx is delaied by the waſhing aforeſaid. It is one of the ingredients alſo to thoſe emplaſtres
F which are deviſed for gentle refrigeratives and exiccatives. And for whatſoever it ſhall bee employed, better it is found to be, in caſe it were waſhed firſt with wine.

As touching Spodos, the Cyprian is moſt eſteemed: and engendered it is, whiles Cadmia and the braſſe ore or ſtone be melted together in the furnace. Exceeding light it is, and apt to mount aloft with the ſmoake of the bloume ſmithie, very ſpeedily, yea, and ready to flie out of the fur-

furnace: and much of it ſticketh to the rouſe and uppermoſt part thereof, differing onely from G
ſoot in whiteneſſe. That which is not ſo white as the reſt, ſignifieth that the furnace was not quick ynough, and that it is not yet come to the full perfection and concoction: and this, ſome there be who call Pompholyx. But looke how much thereof is found of a redder colour, the ſame hath much acrimonie in it, and is of a more biting nature: yea, ſo fretting and corroſive it is, that in the waſhing, if it chaunce to touch a mans eyes, it will put out their light and make him blind. There is a kind of Spodos beſides that looketh yellowiſh like honey, wherin a man may perceive that it ſtandeth very much upon braſſe: but of what ſort ſoever it is, waſhing mendeth it much. Firſt, before it be waſhed, they uſe to cleanſe it lightly with a wing or a briſtle bruſh: and then afterwards to waſh it in a groſſer manner, untill the water be thick and muddie, rubbing it well with the fingers, untill it have loſt all the roughneſſe that it had. That which is waſhed in wine, is H
thought to be of a middle and indifferent operation. And when I ſay wine, you muſt thinke there is ſome difference therein alſo. For being waſhed in a ſmall and mild wine, it is thought to be very good for thoſe collyries which ſerve to comfort and fortifie the eyes that have beene wearied and weakened with long watching: the ſame alſo thus prepared, is more effectual to heale ulcers that be matterie and run: the ſores likewiſe in the mouth that are moiſt and rheumaticke: and generally it ſerveth well to goe into thoſe ſalves and plaſtres which are deviſed againſt gangrenes, tending to mortification. Another kind there is beſides of Spodos called Lauriotis, found in the furnaces where ſilver is tried. But commonly it is held, and for certaine affirmed, That the beſt
*Spodos is called *Nil*, wherof commeth the pretie ambiguous ſpeech, *Nil prodeſt oculis.*
*Spodos for the eyes, is that which commeth in the furnaces where gold is fined. Neither in any thing belonging to our life, is the wit and invention of man more admirable than in this. For, be- I
cauſe we ſhould not take the paines to ſearch into mines and furnaces for ſuch matters, they have deviſed meanes to helpe themſelves withall in the ſame caſes, even by the baſeſt things that be in ſtead of Spodos, which thereupon they tearme by the name of Antiſpodos; for ſo they call the aſhes of the Figtree, whether it bee the gentle or the wild; the aſhes likewiſe of the Myrtle tree leaves, and the tendereſt parts of the branches; as alſo of the wild Olive, the Quince, & the Lentiske trees. They have a kind of Antiſpodos beſides made of the unripe Mulberries, that is to ſay, whiles they be white, dried in the Sunne: like as, of the tops of the Box tree or the baſtard Cyperus, of brier crops, the leaves of the Terebinth or the wild vine Oenanthe flowers. Finally, they uſe in ſteed of Spodos, the aſhes of ſtrong Buls glew, or of linnen rags: which is found to be as effectuall as the right Spodos. Now for to have the ſaid aſhes for this purpoſe, the manner is to K
burne and calcine all theſe matters abovenamed within ſome veſſell of cley, and to ſet it into the oven or furnace, where they are to be torrified untill the ſaid veſſell be throughly baked.

In the ſmithies where braſſe is made and wrought, there commeth a certaine refuſe or offall therof, called Pſegma: to wit, when after the braſſe ore is ſufficiently melted and concocted, there be new coales put thereto, and the ſame ſet on fire and kept burning with the blaſt of bellowes: for then of a ſuddaine (as it were by ſome extraordinarie ſtrong puffe) there are rejected and caſt forth from it certaine huls or chaffe (if I may ſo ſay) of braſſe. Now the ground or floor to receive this refuſe as it falleth, ought to be well paved.

There is another ſtuffe found in the ſaid forges or bloome-ſmithies, eaſily diſcerned from this Pſegma, which the Greeks (for that it is, as it were, twiſe burnt or concocted) call Diphryges. And L
this is made three manner of waies: For firſt they ſay it commeth of the Marqueſit ſtone burnt in a furnace untill it be calcined and reduced in the red chalke Rubrica. It is engendered alſo of the earth or cley within a certaine cave in Cyprus, firſt dried and ſoon after gently burnt in a fire round about it, maintained with ſmall ſtickes put thereto by little and little. There is a third way of making it, to wit, of the groſſe dregs or droſſe of braſſe ſettling downe to the bottome of the furnace: in which furnace a man ſhall perceive theſe different matters, to wit, the braſſe it ſelfe, which being melted, runneth into pans and veſſels readie for to receive it; the refuſe, called Scoria, which flieth out of the furnace; the florey that floteth aloft; & the Diphryges or droſſe which remaineth behind. Some yeeld another reaſon and making of Diphryges in this manner, namely, That there be certaine round bals or pellets (as it were) of hard ſtones found within the mines M
of braſſe, which together with the Marqueſit or braſſe ore doth not melt in the furnace, & a man ſhall ſee the braſſe it ſelfe boile about the ſame: which round hard ſtones are united and ſoudered onely, one to another by this meanes; but themſelves reſolve not nor melt perfitely, unleſſe they be tranſlated into other furnaces: for they be the very heart (as it were) of the whole matter.

But

A But in the ſecond triall and boiling, that which remaineth behind, is called Diphryges. Well, be it what it will, the ſame reaſon there is of it in Phyſicke, as of the reſt of this kind found in furnaces: for by nature it is deſiccative: it conſumeth beſides all excreſſences, and doth cleanſe mightily. The triall of it is by the tongue, for if it be good Diphryges, no ſooner toucheth it the toung, but it drieth it, and withall taſteth of braſſe.

But before I depart from theſe braſſe mines and furnaces, I cannot conceale from you one miraculous thing as touching this mettall. There is (you know) a noble familie in Rome of the *Servilij*, well renowmed, as may appeare by the Romane kalender and acts of record: and theſe have among them a certaine peece of braſſe coine called a Triens (i. the third part *of a Romane Aſſe) which they doe keepe and feed with ſilver and gold. For eat and conſume it dooth both the
B one and the other: from whence it came firſt, and what the reaſon in nature of this propertie is, I know not yet. But for my warrant, I will ſet downe as touching this matter the verie words of old *Meſſala*: The houſe (quoth he) of the *Servilij* hath a certaine ſacred Triens, in the honour of which peece they doe ſacrifice yearely with great devotion and ſolemnitie, omitting no magnificence nor ceremonies therto belonging. And this Triens the common ſpeech is of them all, that it ſeemeth one while to grow bigger, and another while to deminiſh and bee ſmaller: according to which encreaſe or decreaſe, the ſaid *Servilij* take preſage, That their familie ſhall either riſe to more honour, or decay in credit and reputation.

* Which is a farthing.

Chap. xiiii.

C

Of yron, and yron mines, and the different kinds of yron.

IT remaineth now in the next place to diſcourſe of the mines of yron, a mettall which wee may well ſay is both the beſt and the worſt implement uſed now in the world: For with the helpe of yron we breake up and ear the ground, we plant and plot our groves, we ſet our hortyards and range our fruitfull trees in rewes: we prune our Vines, and by cutting off the ſuperfluous branches and dead wood, we make them every yeare to looke freſh and young againe: by meanes of yron and ſteele we build houſes, hew quarries, and cut in ſtone, yea and in one word, we uſe it to all other neceſſarie uſes of this life. Contrariwiſe, the ſame yron ſerveth for warres, murders, and robberies, not onely to offend and ſtrike therewith in hand, but alſo to reach and kill afarre off, with
D divers ſorts of darts and ſhot; one whiles diſcharged and ſent out of engins, another while launced and flung by force of the arme; yea and ſometime let flie with wings: and this I take to bee the wickedſt invention that ever was deviſed by the head of man: for to the end that death may ſpeed away the faſter to a man, and ſurpriſe him more ſodainly, we make it to flie as a bird in the aire, and to the arrow headed at one end with deadly yron, we ſet feathers at the other: whereby it is evident, that the miſcheefe proceeding from yron, is not to bee imputed to the nature of it, but to the unhappie wit of man. For good proofe we had alreadie by many experiments otherwiſe, that yron might be employed and occupied, without any hurt or harme at all to mankind. And verely in thoſe capitulations of peace, which after the expulſion of the kings, *Porſena*, king of the Tuſcanes tendered unto the people of Rome, I find this expreſſe article & impoſition, That
E they ſhould not uſe yron, but onely about tillage of the ground. And as our Chronicles of greateſt antiquitie have left recorded, it was not thought ſafe to permit writing and engraving letters with a ſtyle of yron. Certes, in the third Conſulſhip of *Pompey* the great, by occaſion of a tumult and commotion raiſed within the citie of Rome for the murder committed upon the perſon of *P. Clodius*, there was an edict came foorth (which now is extant upon record) after the manner of an inhibition in this forme: *Ne ullum telum in urbe eſſet*, i. That no man throughout all Rome ſhould be ſeene to weare a weapon. Nevertheleſſe men did not forbear and give over to do ſome honour unto yron alſo in ſome other occaſions of this life, tending to the entertaining of civilitie and humanitie: for *Ariſtonidas* the cunning artificer, minding to repreſent in an image the furious rage of *Athamas*, beginning now to coole and bee allaied, together with his repentance
F for the cruell murdering of his owne ſonne *Learchus*, whom he flung headlong againſt the hard ſtones, and thereby daſht out his braines; made a temperature of braſſe and yron together, to the end, that the ruſtie yron appearing through the bright luſtre of the braſſe, might lively expreſſe a bluſhing red in the countenance, beſeeming a man confuſed and diſmaied for ſo unnaturall a fact. This ſtatue is at this day to beſeene at Thebes. Within the ſame cittie there is another

* O *Plinie*, what wouldeſt thou ſay, if thou didſt ſee and heare the Piſtols, Muskets, Culverines, & Canons in theſe dayes.

image

image of *Hercules* all of hard yron or ſteele, which *Alcon* the famous workman made of purpoſe to ſignifie the undaunted heart of that deified *Hercules*, who underwent and endured all labours and perils whatſoever. Here alſo in Rome wee may ſee certaine drinking cups of ſteele dedicated in the temple of *Mars* the Revenger. G

But to come unto the nature of yron, herein appeareth ſtill the ſame goodneſſe of Nature, that this mettall working ſuch miſcheefe as it dooth, ſhould bee revenged of it ſelfe, and receive condigne puniſhment by the own ruſt. See alſo the wonderfull providence of Nature, *who maketh nothing in the world more ſubject to death and corruption, than that which is moſt hurtfull and deadly to mankind.

**Nihil in rebus mortalibus faciente, quam quod infertiſsimum mortalizati:* the grace of this Latine cannot be ſo well expreſſed in Engliſh.

As touching mines of yron ore, they are to be found almoſt in every countrie, for there is not ſo much as the Iſland Ilva here within Italie, but it breedeth yron. And lightly whereſoever anie ſuch be, they are eaſily found, for the very leere of the earth, reſembling the colour of oare, bewrayeth where they lie. And when it is found out, they burne, trie, and fine it, as other veines of mettall. Onely in Cappadocia there is ſome queſtion and doubt made, whether in the making of yron they be more beholden to the earth that yeeldeth the ore, or to the water for the preparing and ordering of it? For this is certaine, that unleſſe the veine of ore be well drenched and ſoked with the water of one river there, it will never yeeld yron out of the furnace. As for the kinds of yron, many they are, and all diſtinct. The firſt difference ariſeth from the diverſitie of the ſoile and climats where the mines be found: For in ſome places, the ground & the poſition of the heavens doe yeeld onely a ſoft ore, and comming nearer to the ſubſtance of lead than yron: in another, the mettall is *brittle and ſhort, ſtanding much upon a veine of braſſe, ſuch as will not ſerve one whit for ſtroke and naile to bind cart-wheeles withall, which tire indeed would be made of the other that is gentle and pliable. Moreover, ſome kind of yron there is that ſerveth onely, if it bee wrought in ſhort and ſmall works, as namely, for nailes, ſtuds, and tackes emploied about greeves and leg-harneis: another againe, that is more apt to take ruſt and canker than the reſt. Howbeit, all the ſorts of yron ore are tearmed in Latine Stricturæ, a word appropriat to this mettall and to no other, * *à ſtringenda acie, i.* of dazeling the eyes, or drawing a naked ſword. But the furnace it ſelfe, where the ore or yron ſtone is tried, maketh the greateſt difference that is: for therein you ſhall have to ariſe by much burning and fining, the pureſt part thereof, which in Latine is called *Nucleus ferri, i.* the kernell or heart of the yron [and it is that which we call ſteele] and the ſame alſo of diverſe ſorts: for the beſt is it that hardeneth the edge of any weapon or toole: there is of it which ſerveth better for ſtithie or anvill heads, the faces of hammers, bits of mattockes, and yron-crowes. But the moſt varietie of yron commeth by the meanes of the water, wherein the yron red hot is eftſoones dipped and quenched for to be hardened. And verely, water only which in ſome place is better, in other worſe, is that which hath ennobled many places for the excellent yron that commeth from them, as namely, Bilbilis in Spaine, and Taraſſio, Comus alſo in Italie; for none of theſe places have any yron mines of their owne, and yet there is no talke but of the yron and ſteele that commeth from thence. Howbeit, as many kinds of yron as there bee, none ſhall match in goodneſſe the ſteele that commeth from the Seres: for this commoditie alſo, as hard ware as it is, they ſend and ſell with their ſoft ſilkes and fine furs: In a ſecond degree of goodneſſe, may be placed the Parthian yron. And ſetting aſide theſe two countries, I know not where there be any bars or gads tempered of fine and pure ſteele indeed, for all the reſt have a mixture of yron, more or leſſe. And generally in this Weſt part of the world wherein we live, all our ſteele is of a more ſoft and gentle temperature than that of the Levant. This goodneſſe of ſteele in ſome countries ariſeth from the nature of the mine, as in Auſtrich: in others from the handling and temperature thereof, like as by quenching, as I ſaid before, and namely at Sulmo, where the water ſerveth eſpecially for that purpoſe: and no marvaile, for wee ſee a great difference in whetting and ſharpening the edge of any inſtrument, betweene oyle whetſtones that barbars uſe, and the common water grindſtones: for ſurely the oyle giveth a more fine and delicat edge. Furthermore, this is ſtraunge, that when the ore or veine is in the furnace, it yeeldeth yron liquid & clear as water: and afterwards, being reduced into bars and gads when it is red hot, it is ſpungeous and brittle, apt to breake or reſolve into flakes. And conſidering the difference that is betweene the nature of oyle and water (as I have ſaid) this is to be obſerved, that the finer any edge-tooles bee, the manner is to quench them in oyle for to harden the edge: for feare leaſt the water ſhould harden them overmuch, and make the edge more readie to breake out into nickes, than to bend H I K L M

and

**Which our ſmiths cal Colſar-yron.*

**Some read à ſtringenda [oculorum acie] i.* of dazeling the eies; which iron red hot, or the bright blade of ſword & other weapons, doth: but neither any copies of the author have the word [*oculorum*] neither have I read *ſtringere*, but *perſtringere*, to ſignifie, To dazle. Others underſtand it of drawing a naked ſword: and yet it is not ſo proper in Latine to ſay in that ſence, *ſtringere aciem*, as *ſtringere ferrum*, or *gladium*: howbeit, I encline rather to this, for that *Plinie* a little after calleth the beſt ſteele *Acies*, which word haply is the primitive, from whence *acies* alſo is uſed for an edge, &c. And yet it may be, that thoſe *ſtricturæ, i.* ſparkling skales flying from yron under the ſmiths hãmer, and from no other mettall, (which do *perſtringere aciem oculorum*, if any thing els) may give occaſion hereof. *Sed hæc viderint Critici.*

A and turne againe. But wonderfull it is above all, that mans bloud ſhould have ſuch a vertue in it; as to be revenged of the yron blade that ſhed it; for being once embrued therein, it is given ever after eftſoones to ruſt and canker.

Concerning the loade-ſtone, and the great concord or amitie betweene yron and it, I meane to write more amplie in the due place. Howbeit, for the preſent thus much I muſt needs ſay, that yron is the onely mettall which receiveth ſtrength from that ſtone, yea, and keeperh the ſame a long time, inſomuch as by vertue thereof, if it bee once well touched and rubbed withall, it is able to take hold of other peeces of yron: and thus otherwhiles wee may ſee a number of rings hanging together in manner of a chaine, notwithſtanding they bee not linked and enclоſed one within another. The ignorant people ſeeing theſe rings thus rubbed with the load ſtone, & cleaving one to another, call it Quick-yron. Certes, any wound made by ſuch a toole, are more eager and angrie than by another. This ſtone is to be found in Biskay, ſcattered here and there in ſmall peeces by way of bubbation (for that is the tearm they uſe;) but it is not that true Magnet or load-ſtone indeed, which groweth in one continued rock. And I wot not whether theſe be ſo good for glaſſemakers, and ſerveth their turne ſo well in melting their glaſſe, as the other: for no man yet hath made any experiment thereof. But ſure I am, that if one doe rub the edge, back, or blade of a knife therewith, it doth impart an attractive vertue of yron thereunto, as well as the right Magnet. And here I cannot chuſe but acquaint you with the ſingular invention of that great architect and maſter deviſer, of Alexandria in Ægypt *Dinocrates*, who began to make the arched rouſe of the temple of *Arſinoe* all of Magnet or this Loadſtone, to the end, that within that temple the ſtatue of the ſaid princeſſe made of yron, might ſeeme to hang in the aire by nothing. But prevented he was by death before hee could finiſh his worke, like as king *Ptolomæe* alſo, who ordained that temple to be built in the honour of the ſaid *Arſinoe* his ſiſter.

But to returne againe to our yron: of all mines that be, the veine of this mettall is largeſt, and ſpreadeth it ſelfe into moſt lengths every way: as we may ſee in that part of Biſcay that coaſteth along the ſea, and upon which the Ocean beateth: where there is a craggie mountaine very ſteep and high, which ſtandeth all upon a mine or veine of yron. A wonderfull thing, and in manner incredible, howbeit, moſt true, according as I have ſhewed already in my Coſmographie, as touching the circuit of the Ocean.

Chap. XV.

The temper of yron. The medicinable vertues thereof, as alſo of the ruſt of braſſe and yron. Of the skales that ſhed and flie from yron: and of the liquid emplaſtre, called by the Greekes Hygremplaſtrum.

IRon made once hot in the fire, unleſſe it be hardened with the hammer, doth ſoone waſt and corrupt. So long as it looketh but red, it is not readie for the hammer, neither would it bee beaten before it begin to looke white in the fire. Beſmeare it with vinegre and allum, it will looke like copper or braſſe. If you be deſirous to keepe any yron-worke from ruſt, give it a verniſh with ceruſſe, plaſtre, and tarre, incorporat all together. And this is that compoſition, which is called by the Greekes * Antipathia. And ſome ſay alſo, that there is a kind of hallowing yron that will preſerve it from ruſt: As alſo that there is at this day to bee ſeene the chaine of yron within the citie called Zeugma, ſeated upon Euphrates, wherewith king *Alexander* the Great ſometime bound and ſtrengthened the bridge over the river there: the linkes whereof, as many as have ben repaired and made new ſince, doe gather ruſt, whereas the reſt of the firſt making, bee all free therefrom.

* *Veli ſtrigilis inimica.*

As touching the uſe of yron and ſteele, in Phyſicke it ſerveth otherwiſe than for to launce cut and diſmember withall: for take a knife or dagger and make an imaginarie circle two or three times with the point thereof, upon a young child, or an elder bodie, and then goe round withall about the partie as often, it is a ſingular preſervative againſt all poyſons, ſorceries, or enchauntments. Alſo to take any yron naile out of the coffin or ſepulchre wherein man or woman lieth buried, and to ſticke the ſame faſt to the lintle or ſide poſt of a dore, leading either into the houſe or bed-chamber where any dooth lie who is haunted with ſpirits in the night, he or ſhe ſhall be delivered and ſecured from ſuch phantaſticall illuſions. Moreover, it is ſaid, That if one be lightly pricked with the point of ſword or dagger which hath been the death of a man, it

is an excellent remedie againſt the paines of ſides or breaſt, which come with ſuddaine prickes and ſtitches. An actuall cauterie of yron red hot, cureth many diſeaſes, and eſpecially the biting of a mad dog; in which caſe it is ſo effectuall, that if the poyſon inflicted by that wound, have prevailed ſo far, that the patient be fallen into an Hydrophobie thereby, and cannot abide drinke or water, let the ſore be ſeared therewith, the partie ſhall find helpe preſently. Gads of ſteele or other yron red hot quenched in water, ſo long untill the ſame water be hot, cauſeth it to be a holeſome drinke in many diſeaſes, but principally in the bloudie flix. G

The very ruſt of yron alſo is counted medicinable: for ſo *Achilles* is ſaid to have healed *Telephus*: but whether the head of his ſpeare were yron or braſſe, of which he uſed the ruſt, I do not certainely know. Certes, hee is painted thus: with his ſword ſcraping and ſhaking off the ruſt into the wound. But if you would fetch off the ruſt from any old nailes, ſcrape it with a knife wet before in water. As touching the vertues thereof, It is cleanſing, exiccative, and aſtringent; it recovereth the haire in places deſpoiled thereof, if they be annointed therewith in the forme of a liniment: being reduced into a ſalve with wax and oyle of Myrtles incorporat together, many uſe it for the roughneſſe about the eye-lids: the pimples alſo breaking forth over all the bodie. For ſhingles and S. *Antonies* fire, it is ſingular good to applie it in an unguent with vinegre: likewiſe it killeth ſcabs, and healeth whitflawes of the fingers, and the excreſcence or turning up of the fleſh about the roots of the nailes, if linnen rags wet therein be applied conveniently. The ſame conveighed up in wooll after the manner of a peſſarie into the naturall parts of women, ſtayeth the immoderat flux both of whites and reds. The ruſt of yron tempered in wine, and wrought together with Myrrhe, is good for a greene wound: put thereto vinegre, and then it helpeth the piles and ſwelling biggs of the fundament. A liniment made with it, mitigateth the paine of the gout. H I

As touching the skales of yron that flie from the edge or point of any weapon, wrought in the ſmiths forge: they ſerve in the ſame caſes, that the ruſt dooth, and have the like effects, ſave onely this, that they have greater acrimonie, and worke more eagerly: in which regard they are employed about repreſſing of the flux that falleth into watering eyes. But marke this one thing: Yron beeing that which woundeth moſt and ſheddeth bloud, yet the skales that come from it, ſtaunch the ſame: a propertie they have beſides to ſtop the flux in women: and being applied to the region of the ſpleene, they doe open the obſtructions thereof, and eaſe other infirmities incident thereto: the running hæmorrhoids they repreſſe, and ſuch ulcers as are given to ſpread farther and corrode as they goe. Reduced into a fine pouder, and gently ſtrowed upon the eye-lids, they are good for the accidents thereto belonging. But the principall uſe of them, and for which they are moſt commended, is in a certaine liquid plaſtre called Hygremplaſtrum; which ſerveth to mundifie wounds, ulcers, and fiſtulaes: to eat away all calloſities, and to incarnat and engender new fleſh about bones that are periſhed. And this is the receit of that compoſition: Take of the ſcouring Tuckers earth the weight of two oboli, of braſſe ſix drams, of the skales of yron as much; and no leſſe of wax, incorporat all theſe according to art in one ſextar of oile. But in caſe there be need to mundifie any ſores, or to incarnat, there would be put therto ſome plaine cerot beſides. K

Chap. xvi. L

Of the mines of lead ore: of *white lead and blacke.

*Which ſome hold to be Tinglaſſe.
*Our ordinary lead.

NOw enſueth the diſcourſe of lead, and the nature of it; of which there be two principall kinds, the blacke, and the white. The richeſt of all, and that which carieth the greateſt price, is that which we in Latine name *Plumbum candidum*, *i.* the white bright lead, and the Greekes *Caſsiteron*. But I hold it a meere fable and vaine tale, that all of it is fetched as farre as from the Iſlands of the Atlanticke ſea, and that the inhabitants of thoſe parts doe conveigh it in little twiggen boats, covered all over with feathers. For the truth is, that there is found of it in theſe dayes within Portugall and Gallæcia, growing ebbe upon the upmoſt face of the earth, being among the ſands, of a blacke colour, and by the weight onely is knowne from the reſt of the foile: and here and there among, a man ſhall meet with ſmall ſtones of the ſame ſtuffe, moſt of all within the brookes that bee drie ſometimes of the yeare. This ſandie and gravellie ſubſtance, the mine maiſters and mettall finers uſe to waſh, and that which ſetleth downeward, they burne M

and

A and melt in the furnace. There is found likewise in the gold mines, a kind of lead ore which they call Elutia; for that, the water that they let into those mines (as I said before) washeth and carrieth downe withall certaine little blacke stones, streaked and marked a little with a kind of white, and as heavie they be in hand as the verie ore of gold: and therefore gathered they bee with the same ore, and remaine in the paniers togither therewith: and afterwards in the furnace when the fire hath made a separation between them and the gold, so soone as they are melted, doe resolve into the substance of the white lead or tinglasse aforesaid.

Moreover, this is strange, that throughout all Gallecia, you shall not find a mine of common blacke lead, and yet in Biskay (which confineth hard upon it) there is abundance of it, and no other; neither out of the veine of this white lead shall you trie any silver, whereas out of the
B blacke, it is an ordinarie thing to extract silver. Againe, this is certein, that two peeces of blacke lead, cannot possibly be sodered togither without this tinglasse; neither can this be united to the other but by the meanes of oile: nay it is unpossible to conjoyne a peece of tin-soder or white lead with another, but with a soder of the blacke. This white lead or tinglasse hath been of long time in estimation, even since the warre of Troy, as witnesseth the Poët *Homer*, who calleth it Cassiteron. As for blacke lead, engendred it is two manner of waies; for either it groweth in a veine of the owne without any other mettall with it, or else it doth participat with silver in the same mine, and beeing intermingled in one peece or lumpe of ore, it is separated from it at the melting and fining onely: for the first liquor that runneth forth from it in the furnace is tin, and the second silver. As for the third part of the veine which remaineth behind in the furnace, it is
C[3] Galæna, that is to say, the verie mettall it selfe of lead; which beeing once againe melted and tried in the fire, after two parts thereof bee deducted, yeeldeth that blacke lead whereof wee now doe treat.

Chap. xvii.

Of Tin: of Argentine-lead: and other points pertinent to these matters.

D TIn hath a proper use to enhuile vessels of brasse, partly to take away the evill tast that they have and to make them sweeter, and partly to preserve them from rust, or to qualifie the malicious nature of brasse: and yet woonderfull it is, that such vessels thus tinned are never a jot the heavier by that means. Also, in times past there were (as I have alreadie said) excellent mirroirs made of tin, and the same were tempered and wrought at Brundise: but those of silver have put them downe since, that everie chamber-maid and such like serving creature, would be at their looking-glasses of silver. But tin is found much counterfeit in these daies, by putting unto white lead aboveſaid a third part of white brasse: yea and there is another devise to sophisticat tin, to wit, by mixing white and blacke lead one with another by even weight and portion: and this maslen some call at this day, *silver-lead or argentine. As for that mixed matter, wherein be two parts of blacke lead and one of the white, they call it Tertiarium: this kind of tin is sold after *thirtie the pound, and it is that wherewith they used to soder conduit pipes: but the leau-
E der disposed pewterers have a cast to put unto this tin called Tertiarium, an equall quantitie of white lead, and then they call it Argentarium; which mettall they employ in vessels for the kitchin to seeth meat or what they list in them: and this kind of pewter wanteth no price, for they set it at an hundred and thirtie the pound, whereas a pound of white lead or tinglasse pure and fine of it selfe, is sold for thirtie, and the blacke for sixteene. As touching the temperature and nature of the white lead, it standeth more upon a drie substance; contrariwise, that of blacke, is wholly moist and liquid: which is the reason that the said white lead or tinglasse will serve to no use or purpose unlesse it bee mixed with some other mettall: neither is it good to lead or soder silver with, for sooner will silver melt in the fire, than it. There is a devise to tin pots, pans, and other peeces of brasse so artificially with white lead or tinglasse, (an invention which came out
F of Fraunce) that hardly a man shall discerne them from vessell of silver: and such leaded vessels are commonly called Incoctilia. After the same manner, they have taken up of late another custome, to silver the trappings especially and caparisons of their horses of service, yea and the harnaise of coach-horses and draught-jades, and namely in the towne Alexia: As for the former invention, those of Bourges have the honour of it. Neither rested they so, but have proceeded to

* *i.* Pewter, as some take it.

* This place seemeth to be corrupt.

adorne and garniſh in that manner their charriots, waggons, and coaches. But our vaine and G
waſtfull wantons not herewith contented, are come now to their ſtirrops and waggon ſeats, not of ſilver onely but alſo of gold. And that which in times paſt was condemned as monſtrous prodigalitie, to be put into drinking veſſels; the ſame to tread upon now with the feet, and to weare and conſume about waggons and charriots, is commended for fineneſſe, neatneſſe, and elegancie. But to returne againe unto our white lead, if you would know whether it be right and good or no, the proofe is to be made in paper: for put it melted into a ſheet of paper, if it be not falſified it will ſeeme to breake and rend the paper with the weight, and not with the ſcalding heat thereof.

Moreover, it is worth the obſervation, that the Indians have no mines among them either of braſſe or lead, but they are content to part with their pearls and pretious ſtones unto merchants H
by way of counterchaunge for theſe mettals.

Blacke lead or common lead is much uſed with us for ſheets to make conduit pipes; alſo it is driven with the hammer into thin plates and leaves. This mettall requireth much labour and toile in Spaine and Fraunce, before it bee gotten out of the mine, ſo deepe it lieth; whereas in Britaine it runneth ebb in the uppermoſt coat of the ground, and that in ſuch abundance, that by an expreſſe act among the Iſlanders themſelves, it is not lawfull to digg and gather ore above ſuch a proportion, ſet downe by ſtint. Furthermore, all the blacke lead which now men have in requeſt, is knowne by theſe names, to wit, Iovetanum, Caprarienſe, and Oleaſtrenſe. As for the droſſe and refuſe that is purged from it, there is no difference at all, ſo that it have the due cleanſing by the fire as it ought. Theſe mines alone of lead have one woonderfull and admirable gift I
above all others, That if they be forlet a time and ſuffered to reſt, they will grow againe and be more fettile of ore by that means. And in truth, this ſeemeth to be the reaſon thereof, For that the aire hath good means and libertie to infuſe it ſelfe, and to enter in at the pores and paſſages which it findeth enlarged and open: much like as we obſerve in certaine women, who upon their ſlips of abortive fruit, proove thereby more fruitfull and apter to conceive. And that this is true that I ſay of lead mines, it was found of late by good experience in the mines of Santaria in the province of Bœtica in Spaine: for whereas in times paſt for two huudred yeeres togither it was woont to be ſet for a rent of ten pound weight, after it had taken repoſe and was opened againe, it yeelded for everie ten, five and fiftie. Likewiſe, the lead mine named Antonianum within the ſaid province, which paid in old time but a cheiſe of ten pound weight, is come now to a yeerely K
revenew of foure hundred pound. To conclude, one marveilous qualitie lead hath beſides, That no veſſell made thereof, will melt over the fire, if there bee water in it: and yet caſt into the ſaid water a little ſtone, or a ſmall peece of braſſe coine, although it be no more than a quadrant, you ſhall ſee it melt, and a hole burnt through it by and by.

Chap. xviii.

The medecines that wee have from Lead, and the refuſe or droſſe of Lead: of the veine of Lead called Molybdæna or Galena: of Ceruſe, white Laad, or Spaniſh white, called Pſimmythium: and of Sandaracha. L

GReat uſe there is in Phyſicke of Lead applied by it ſelfe alone, and namely, to repreſſe and keepe downe the skarres and cicatrices that riſe above the other skin: alſo by the refrigerative qualitie that it hath, to coole the heat of fleſhly luſt, if there be bound unto the loines and region of the reines, a thin plate or leafe thereof. And verely *Calvus* the oratour (who by occaſion of much dreaming in his ſleepe of venereous ſports, fell into mightie pollutions, and ſo farther into the grievous maladie of Gonorrhæa or running of the reins) with wearing ordinarily theſe leaden plates, ſtaied (by report) all ſuch vaine and wanton fantaſies and imaginations: by which means hee preſerved alſo his ſtrength, and had a bodie able to endure the labour M
of much ſtudie and ſitting at his booke. And *Nero* the Emperour (ſince the gods would have it ſo) uſed ordinarily to weare a plate of lead to his breaſt, under which hee would chaunt out luſtily with a wide throat and ſtrong voice, his filthie ſonnets and beaſtly ballads; but hee ſhewed thereby that lead was a ſingular meanes to maintaine a good voice. But to ſerve otherwiſe in Phyſicke,

A Phyſicke, lead ought to bee prepared and baked after this manner: Take an earthen pan of potters worke, and lay one bed therein of brimſtone finely powdered; upon which, beſtow another couch of thin leaves or plates of lead, and a third courſe over them of brimſtone and yron filedust togither, for to cover all: this beeing done, ſet the veſſell in a furnace; but while theſe things are calcining, meet it is and neceſſarie that the veſſell or pan aforeſaid be well luted and ſtopped cloſe, that there bee no venting or breathing hole at all; for otherwiſe the lead within the ſaid pan, would ſend foorth a noiſome vapour and peſtilent, moſt daungerous to all that bee within the ſent thereof, but to doggs eſpecially, whome it killeth out of hand: and verely, as this exhalation of lead is deadly unto them, ſo the aire of all mettals in generall, is adverſe and contrarie unto flies and gnats: which is the reaſon, that a man ſhall never ſee any of theſe inſects in
B mines, forges, and bloome-ſmithies, where mettals bee uſually tried. Now in the calcining of lead, ſome there bee who chuſe rather to take the duſt of lead gotten off with a file, and to mix the ſame with brimſtone: others thinke it better to uſe ceruſſe rather than brimſtone. Furthermore, lead doth yeeld from it ſelfe a certaine ſubſtance by way of loture, which is of right great and manifold uſe in phyſicke: the making whereof is in this manner, They take a leaden mortar, they pun and ſtampe the ſame with a leaden peſtill, caſting in raine water eftſoons; and thus they labour at it continually untill ſuch time as the water grow to ſome conſiſtence and be thicke againe: this they permit to reſt and ſettle: the pure and cleare portion that is aloft, they ſucke and ſoke away with ſpunges: the groſſeſt part that is ſettled in the bottome, after it is dried, they reduce into trochiſques. There be ſome who ſtampe in the ſame order, the filedust which com-
C meth of lead: others put thereto ſome lead ore among: and as there bee many that uſe vinegre or wine in this operation, ſo there are ſome againe who take greace or roſes in lieu thereof. You ſhall have thoſe that for this purpoſe make choice of a ſtone mortar, eſpecially of Thebaïcke marble, but they take a leaden peſtill rather than any other, to bray and pun withall: and by this means the medicinable lead will be the whiter.

Now as touching the lead calcined in manner aforeſaid, it may bee waſhed alſo after the order of Antimonie and Cadmia: and in this manner prepared, it is of power aſtringent, good to ſtop any flux or rheume; proper alſo to skin and make a ſmall skarre. Much uſe there is of lead thus burnt and waſhed, in collyries or eyeſalves, and principally if the eyes either ſtand out too farre, or be ſunke in too deepe: alſo it is ſingular to repreſſe the excreſcenſe of fleſh in ulcers, to
D heale the chaps in the ſeat or fundament, to cure the running hæmorrhoids, and to diſcuſſe or keepe downe the blind and ſwolne piles: and for all theſe accidents in generall, the loture of lead aforeſaid is moſt excellent. But the aſhes of lead burnt and calcined, is more proper for the cure of corroding ulcers and filthie ſores. And in one word, the ſame effects and operations it hath, that the aſhes of paper. Alſo, the manner of burning and calcining lead, is to put into a pan certaine little plates thereof, togither with brimſtone, turning the ſame ever and anon either with ſome yron rod or ſtiffe ſtalke and ſtem of Ferula plants, untill ſuch time as both the one and the other being liquefied, be converted and turned into aſhes: the ſame, after that they be once cooled, ought to bee punned and beaten againe, and reduced into a moſt pure and exquiſit fine powder. Some there bee who take file-duſt of lead, put the ſame in an earthen pot of
E greene potters clay, ſet the ſame into an oven, and ſo let it calcine therein untill ſuch time as the pot be well and througly baked: others againe there are, who mix with lead the like quantitie of ceruſſe, or elſe of barley, and pun the ſame like crude-lead uncalcined in manner aforeſaid, for a loture; and when it is reduced thus into a powder, they make more reckoning of it than of the Cyprian Spodium.

Over and beſides, the droſſe or refuſe of lead is medicinable: and the beſt is that accounted, which commeth neareſt unto a yellow colour, without any reliques at all of the lead among; or elſe enclining to the hew of brimſtone, and cleanſed from all earthly ſubſtance: this alſo being braied and broken into ſmall parcels, may bee waſhed in manner aforeſaid, and ſtamped with water in a mortar, untill ſuch time as the water looke yellow; then muſt it be powred forth into
F a pure and cleane veſſell; and this tranſlavation ought ſo long to be continued out of one veſſell into another, untill ſuch time as it have done caſting any reſidence downward; for the ſediment that reſteth in the bottome is the beſt, working the ſelfeſame effects as lead doth, but with more acrimony. When I conſider all this, me thinks I cannot ſufficiently admire the diligence of men, who have made ſuch experiments of all things in the world, ſparing not ſo much as the verie

ordure, offall, and filthie excrements, but have tried concluſions therein ſo many wayes, and left nothing unattempted. G

There is a kind of Spodium alſo made of lead in the furnace, after the ſame manner as I ſhewed before, of copper or Cyprian braſſe: the order of waſhing whereof, is this; To put it in a courſe linnen cloth, and to lay the ſame in raine water, that the terrene ſubſtance may bee ſeparated from the reſt that is transfuſed or paſſeth through the cloth with the water: and yet the ſame muſt be cribled or ſerced afterwards, and beaten to powder. Some thinke it better to wipe and ſcoure off the duſt from the Calamine with wings, and then to beat it in a mortar with the moſt odoriferous wine they can get.

There is beſides, a minerall named Molybdena, which elſewhere I have called Galæna; by which I meane in this place, the ore or veine that containeth within it, both ſilver and lead: the better this is thought to be, the more that it enclineth to the colour of gold, and the leſſe that it ſtandeth upon lead: the ſame alſo is brittle, apt to crumble, and in proportion of the quantitie not verie weigtie in hand: the ſame, if it be boiled with oile, will in colour reſemble liver. There is a kind of Galæna likewiſe that ſticketh to the furnaces of gold and ſilver: but this (whereof I now ſpeake) they call Metallica, that is to ſay, the Minerall: and verely the beſt of this kind, is that which is found in Zephyrium: the markes whereof are theſe; If it have little or no earth in it, nor be any waies ſtonie: the ſame is burnt, calcined, and waſhed, neither more nor leſſe than the droſſe Scoria. Much uſed this minerall is in thoſe unctuous liniments or ſalves called Liparæ, deviſed as lenitive and refrigerant, for ulcers: alſo it entreth into plaſtres which are * not mordicant: but beeing applied to any ſore in tender or delicat bodies, and in the ſofteſt parts, it doth heale faire, and skin throughly. The compoſition of which plaſtres, is after this manner; Take three pound weight of this minerall lead Molybdæna, put thereto of wax one pound, and of oile three hemines; which done, incorporat all togither (according to art) into the forme of an emplaſtre. Now if it ſo fall out that the patient be an elderly bodie, there would be an addition put thereto of the lees or mother of oile olive. This minerall may be tempered alſo to right good purpoſe, with litharge of ſilver, and the droſſe of lead, and then it is a moſt excellent medecine (to be injected by a clyſtre) for the dyſenterie or bloudie flix; for the tineſme alſo, which is an inordinat deſire to the ſtoole without doing any thing; provided alwaies, that the belly be fomented beſides with hot water. H I

* *Quæ non alligantur*: it is thought that *Plinie* miſtook in *Dioſcorides*, and for *αἱματίτις λίθος*, read *αἱματίτις*, which he hath tranſlated without any ſenſe at all or congruitie to the place.

There is another minerall beſides, called Pſimmythium, which is all one with Ceruſe: and this, the furnace and mine of lead ore doth yeeld: but the beſt of this kind is brought from the Iſland Rhodes. The manner of making it, is this: Take the fineſt peeces that are ſcraped from lead, let the ſame be hung over a veſſell of the ſtrongeſt and ſharpeſt vinegre that poſſibly can be had, that they may diſtill thereinto: and looke what of it is falne into the ſaid vinegre, muſt be dried afterwards, ground into powder, and ſearced; and then a ſecond time it ought to bee tempered with vinegre, and ſo reduced into ſeverall trochiſques, to be dried in the Sun during Summer. There is another way of making Ceruſe beſides this; namely, to put lead into certaine pots or pitchers of vinegre well and throughly ſtopped, that no aire goe out, and therein to let it reſt for ten daies ſpace togither: after which time, to take it forth, and ſcrape from it the mouldineſſe or vinewing that doth furre or gather about it: which done, to caſt it in againe into the ſaid veſſels, continuing ſo untill ſuch time as the lead bee conſumed to nothing. Now that which hath been thus ſcraped from it, they take and beat into powder, they ſerce it alſo verie fine, calcine it over the fire in a pan, ſtirring and mixing it togither with little ſlices or pot-ſtickes, untill ſuch time as it wax red, and be like unto Sandaracha. After all this, they waſh it in freſh water ſo long untill that all the groſſeneſſe be ſcoured off: which when it is drie, in like manner as before, they digeſt it into trochiſques. This Ceruſe ſerveth to the ſame purpoſes that the reſt abovenamed, (onely of all the other it is lighteſt in operation) and beſides ſerveth to make an excellent blanch for women, that deſire a white complexion: but deadly it is, being taken inwardly in drinke; like as litharge alſo. This ceruſe thus made, as white as it is, in caſe it be afterwards burnt againe, turneth to be reddiſh. K L M

As touching Sandaracha, I have alreadie ſhewed in manner all that concerneth the nature of it: howbeit, this would be noted over and above, that it is found in the mines as well of ſilver as of gold: the redder it is, and of a more ſtrong and violent ſmell, the better men take it to be; ſuch alſo is pure, cleare, and brittle withall, or eaſie to crumble: mundificative it is and aſtringent,

heating

A heating alſo and exceeding corroſive: and the principall vertue that it hath, is to fret and putrifie whatſoever it worketh upon: in a liniment with vinegre, it cauſeth the haire to come up thicke againe in places deſpoiled thereof by any diſeaſe. It entreth into collyries or eyeſalves: reduced into a lohoch with honey, it cleanſeth the throat, and maketh a cleare, ſhrill, and lowd voice: eaten by way of a bole with turpentine, it is a gentle and pleaſant medecine for thoſe that bee ſhort-winded and troubled with the cough: a perfume alſo made with it and cedar togither, is good in the ſame caſes, ſo that the ſmoke bee received up at the mouth. As for * Arſenicke, it is of the ſame ſtuffe: that which is beſt of this kind, reſembleth burniſhed gold in colour: the paler kind enclining to the colour of Sandaracha, is thought to be the worſe. A third ſort there is, of a middle and meddled colour, compounded as it were of gold and Sandaracha. Theſe two
B later kinds be skalie aloft: as for the firſt, which is drie and pure, it is full of ſmall veines running here and there, whereby it is apt to cleave as the veine goeth. Of the ſame operation is Arſenicke as the reſt, but that it is more hot and biting; in which regard, it is uſed in potentiall cauteries, and depilatories: it taketh away the carnoſities and apoſtemations about the nailes of the fingers: the ſuperfluous fleſh alſo within the noſthrils: the biggs that hang foorth of the fundament: and in one word, it eateth away any excreſcence whatſoever. To conclude, much better it is and more powerfull in operation, in caſe it bee calcined in a new earthen pan, where it muſt torrifie ſo long untill it chaunge the colour.

* Yellow orpiment.

C

THE XXXV. BOOKE OF THE HISTORIE OF NATVRE,

D

WRITTEN BY C. PLINIVS SECVNDVS.

¶ The Proëme.

E *THe diſcourſe of Mines and Mettals, wherein principally conſiſteth the wealth of the world: of other minerals alſo growing to them, with the natures, operations, and effects of them all, is an argument ſo knit and annexed to Phyſicke, that the handling thereof (which I have alreadie well-neare perfourmed) not onely diſcovereth a world of holeſome medicines profitable for the life and health of man, but alſo inferreth a number of hidden ſecrets, couched within the Apothecaries ſhops; yea and openeth the way unto the curious Art and ſubtile deviſes of Gravers, Painters, and Diers, inducing me withall to take them alſo before me, and to treat thereof accordingly: which when I have done, there remaineth yet for mee a new worke to take in hand; namely, to write of ſundrie kinds of Earth and Stone, and thoſe linked togither and carrying with them a longer traine by farre, than the former minerals. Concerning which, other authors and the Greeke writers eſpecially, have ſo particularized, that of each one of them they have written many volumes. For mine owne part, I meane not*
F *to follow their ſteps, but by way of compendious brevitie, to proceed as I have begun, and yet to omit nothing that is neceſſarie, profitable, and pertinent to nature.*

G

Chap. I.

The honour of flat picture in old time.

TO begin then with that which remaineth as touching Picture and Painting, this would be knowne, That in times past it was reputed a noble and excellent Art: in those daies I meane, when Kings and whole States made account thereof; and when those onely were thought ennobled and immortalized, whom painters vouchsafed to commend by their workmanship to posteritie. But now, the marble and porphyrit stones have put painting cleane downe: the gold also laid upon them hath woon all credit from painters colours: gold I say, wherewith not only plaine and entire walls are richly guilded all over, but also the polished works of marble engraven upon them after the manner of inlaid worke and marquetage of divers peeces, resembling men, beasts, floures, and all things else: for in these daies contented we are not with plaine squares and tables of marble, nor with the riches of mightie mountains, couched under covert and laid within our bed-chambers in that sort as they grew, but come wee are now to paint stones. Devised this was first in the daies of *Claudius Cæsar*: but when *Nero* came to be Emperour, the invention was taken up, to give those colours to stones in their superficiall outside, which they had not of their owne; to make them spotted, which naturally were of one simple colour: that by the helpe of mans hand, the * Numidian red porphyrit should be set out with white spots in *eg-fashion: the * Sinadian grey marble distinguished with marks and strakes of purple: as if our delicat wantons shewed thereby how they could have wished the stones to grow. Thus would they seeme to correct the works of Nature, to supply the want of mountaines and quarries, and to make amends for the hills cloven in sunder for gold, and hewed in peeces for marble. And what is the end of all this prodigious prodigalitie and wastfull superfluitie? but that the fire when it commeth, may consume in one houre a world of wealth.

H

I

* *Numidicus.*
* *Ovatus.*
* *Sinadicus.*

Chap. II.

The estimation and account that was made of Images in times past, represented by lively pictures.

K

THE manner was in auncient time, to continue and perpetuat the memoriall of men, by drawing their pourtraitures in lively colours, as like to their proportion and shape as possibly could be; but this custome is growne now altogither out of use: in stead thereof wee have shields and scutcheons set up of brasse: wee have faces of silver in them, without any lively distinction of one from another: and as for our statues, the heads upon them otherwhiles bee *chaunged one for another; which hath given occasion long since of many a jest and libell spred abroad in rime and sung in everie street. In so much as all men now adaies are more desirous to have the rich matter seene that goeth to the making of images, than to be known by their owne personage and visage as it is: and yet everie man delighteth to have his cabinet and closet well furnished with antique painted tables: the statues and images of other men they think it enough to honour and adore; whiles they themselves, measuring worship by wealth, and thinking nothing honourable that is not sumptuous and costly, see not how by this means they give occasion to their heires for to breake open their counters and make spoile of all, or else before that day come, entice a theefe to be hooking or twitching them away with gins and snares. Considering then, that no man careth for a lively picture, all the monuments that they leave unto their heirs, are images rather of their monies, than resemblances of themselves. Howbeit, these great men take pleasure to have their owne wrestling places and halls of exercise, yea and the roumes where they are annointed, beautified and adorned with the pourtraitures of noble champions: they delight also to have the face of *Epicurus* in everie chamber of the house, yea and to carrie the same about them upon their rings whersoever they goe: in the remembrance and honour of his nativitie, they doe offer sacrifice everie twentith day of the moon, and these month-minds they keepe as holydaies duly, which thereupon they call Icades: and none so much as they who will not abide to be knowne another day by any lively image drawne whiles they be alive. Thus it is come to passe, that whiles artificers play them and sit still for want of worke, noble arts by the means

L

M

* For they were so made that they mought be taken off & set on againe.

A meanes are decaied and periſhed. But I marvaile nothing hereat: for thus it is verely and no otherwiſe, when we have no reſpect or care in the world to leave good workes behind us, as the images of our minds, wee doe neglect the lively pourtraitures and ſimilitudes alſo of our bodies. In our forefathers dayes ywis it was otherwiſe: their hils and ſtately courts were not ſet out with images and portraitures after this ſort; there were not in them to bee ſeene any ſtatues or images wrought by artiſane ſtrangers, none of braſſe they had, none of marble, their Oratories and Chappels were furniſhed with their own and their aunceſtors *pourtraictures in wax, and thoſe lively and expreſſely repreſenting their viſages; theſe were ſet out and diſpoſed in order, theſe were the images that attended the funerals of any that was to bee enterred out of that ſtocke and linage. Thus alwaies as any Gentleman died, a man ſhould ſee a goodly traine of all thoſe which B were living of that houſe, accompanying the corpes, cauſing alſo the images of their predeceſſours to march ranke by ranke in order, according to their ſeverall deſcents: in which ſolemne ſhew, the whole generation that ever was of that familie, repreſented by theſe images, is there preſent, readie to performe that laſt dutie and honour to their kinſman. Moreover, whereſoever theſe images ſtood within the oratorie or chappell beforeſaid, there were lines drawn from them upon the wall, directing to the ſeverall titles and inſcriptions which contained their ſtile, their dignities, and honours, &c. As for their ſtudies and counting houſes, full they were of books, records, and rolls, teſtifying all acts done & executed by them both at home and abroad, during the time they were in place to beare office of ſtate. Over & beſides thoſe images within houſe, reſembling the bodily ſhape & countenance; there were others alſo without dores, & namely, about the por- C tailes and gates of the houſe, which were the teſtimonies of brave minds & valiant hearts: there hung fixed the ſpoiles conquered and taken from the enemies, which notwithſtanding any ſale or alienation, it was not lawfull for the purchaſer to pluck downe; in ſuch ſort, as the houſe it ſelfe triumphed ſtill and retained the former dignitie, notwithſtanding it had a new lord and maiſter. And verely, this was to the maiſter and owner a great ſpur unto valour and vertue: conſidering, that if he were not in heart and courage anſwereable to his predeceſſour, he could never come in at the gates, but the houſe was readie to reproch and upbraid him daily for entering into the tri- umph of another. Extant there is upon record, an Oration or act of *Meſſala* (a great Oratour in his time) wherein upon a great indignation he expreſſely forbad that there ſhould bee enter- mingled one image that came from another houſe of the *Levini*, among thoſe of his owne name and D linage, for feare of confounding the race of his familie and aunceſtours. The like occaſion mo- ved and enforced old *Meſſala* to put foorth and publiſh thoſe bookes which he had made of the deſcents and pedigrees of the Romane houſes: for that upon a time as hee paſſed through the gallerie belonging to *Scipio Africanus* his houſe, hee beheld therein his ſtile, augmented by the addition of *Salutio*, (for that was one of his ſurnames) which fell wnto him by the laſt will and te- ſtament of a certaine rich man ſo called, who adopted him for his owne ſonne: as being greatly diſcontented in his mind, that ſo baſe a name as that (to the ſhame and diſhonor of the *Africans*) ſhould creepe into the noble familie of the *Scipions*. But if I may ſpeake without offence of theſe two *Meſſalæ*, it ſhould in my conceit be ſome token of a noble ſpirit and good mind that loveth and embraceth vertue, to entitle his owne name, although untruly, to the armes and images of o- E thers, ſo long as they be noble and renowmed: and I hold it a greater credit ſo to doe, than to de- meane our ſelves ſo unworthily, as that no man ſhould deſire any of our armes or images. And ſeeing that I am ſo far entered into this theame, I muſt not paſſe over one new deviſe and inven- tion come up of late, namely, to dedicat and ſet up in libraries the ſtatues in gold or ſilver, or at leaſtwiſe in braſſe, of thoſe devine and heavenly men, whoſe immortall ſpirits doe ſpeake ſtill and ever ſhall, in thoſe places where their bookes are. And although it bee unpoſſible to recover the true and lively pourtraits of many of them, yet we forbear not for all that to deviſe one image or other to repreſent their face and perſonage, though we are ſure it bee nothing like them: and the want thereof dooth breed and kindle in us a great deſire and longing, to know what viſage that might be indeed which was never delivered unto us: as it appeareth by the ſtatue of *Homer*. Cer- F tes, in my opinion there can be no greater argument of the felicitie and happineſſe of any man, than to have all the world evermore deſirous to know, What kind of perſon hee was whiles he li- ved? This invention of erecting libraries, eſpecially here at Rome, came from *Aſinius Pollio*, who by dedicating his Bibliotheque, containing all the books that ever were written, was the firſt that made the wits and workes of learned men, a publicke matter and a benefit to a Commonweale.

*These images were no other than the viſage and head as far as to the ſhoulders.

But

*Ptolomæus Philadelphus.
*Attalus.

But whether the kings of *Alexandria in Ægypt, or of *Pergamus, began this enterprise before (who upon a certain emulation and strife one with another, went in hand to make their stately and sumptuous libraries) I am not able to avouch for certaine. But to returne againe to our flat images and pictures; that men in old time delighted much therin, yea and were caried away with an ardent and extraordinarie affection unto them, may appeare by the testimonie, not onely of *Articus* that great friend of *Ciceroes* (who set forth a booke entituled, A Treatise of painted images) but also of *M. Varro*, who in all his volumes, whereof hee wrate a great number, upon a most thankfull and bountifull mind that he caried, devised to insert not onely the names of seven hundred famous and notable persons, but also in some sort to set downe their physiognomie and resemblance of their visage: not willing as it might seeme that their remembrance should perish, but desirous to preserve the shapes and portraits of so worthie personages against the injurie of time, which weareth and consumeth all things; endevouring by this meanes, & as it were in a kind of emulation striving to do as much for them in this behalfe, as the gods could doe, not onely in giving them immortalitie, but also by dispersing these pourtraits into all parts of the world, to shew them personally in every place to the eyes of men, as if they were present.

Chap. iii.

At what time scutchions and shields, with images engraven in them, were first erected in publicke place. Where they began to be set up in privat houses. The originall of pictures. The first portrait that was of one single colour. Of the first painters. How ancient the art of painting was in Italy.

And this verely which *Varro* did, namely, to insert the names and counterfeits of famous men in his bookes, was to gratifie straungers onely. But of those who were desirous in this kind, to honour Romanes, I find in the Chronicles, that *Appius Claudius* was the first (him I meane, who in the 259 yeare after the foundation of the citie of Rome, bare the Consulship with *Servilius*) and namely by dedicating in temples and publicke places of the citie, the shields of his predecessours by themselves alone. For within the chappell of *Bellona*, he caused to bee set up the scutcheons and shields of his aunce stours; taking great contentment to have the armes of his predecessours seene on high, and the same accompanied with the titles of their honourable dignities to be read. A goodly shew, no doubt, and a magnificent, in case there could be shewed withall a long descent of petie images representing a number of children, as it were the neast of a faire brood and off-spring: for who would not take great joy and pleasure to see such a sight, who would not favourably behold the armes of such a race and linage? After that *Appius Claudius* had given this precedent at Rome, there followed *M. Æmilius*, companion in the same Consulship with *Q. Luctatius*, who not contented to have the Armoires and coats of his progenitors, to be advaunced aloft in the stately hall and pallace Æmilia onely, tooke order, that they should stand also at home in his owne house: and this also was a matter of right great consequence, beeing done according to the patterne and example of the martiall worthies in *Homer*: For within these shields and scutcheons, resembling those which were used in old time in the battailes before Troy, were represented the images of such as served with them, engraven therein: for thereupon such shields tooke the name *Clypei, i. chased and engraven, not of the old word in Latine *Cluere*, which signifieth to fight, or to bee well reputed, as our thwarting Grammarians would with their subtile sophistrie seeme to etymologize and derive it. Certes, this originall of shields and coats of armours, emplied a brave mind and noble spirit full of vertue and valour, when every mans shield shewed the lively pourtrait of him that bare it in the wars. The Carthaginians were wont to make their targuets of beaten gold, and those likewise they caused to be engraven with their own pourtraits, and caried the same with them to the wars. And verely, *Q. Martius* that worthy warrior, and revenger of the two *Scipioes* in Spaine, having defeated the Carthaginians & taken many of them prisoners, found among other spoiles and pillage, the shield of *Asdrubal*, made in maner aforesaid: Which shield was erected & hung up over the porch of *Iupiters* temple upon Capitoll hill, and remained there unto the first fire that consumed the temple. And seeing I am fallen upon this point, namely, of erecting the armours woon from enemies, in publicke place; I may not passe over in silence the securitie and careless regard that our forefathers had in this behalfe;

*Quasi glypei. ἀπὸ τῦ γλύπτειν, i. à cælando.

A behalfe: which was ſo great, that *M. Aufidius*, who farmed and undertooke the cuſtodie or keeping of the Capitoll, the temple, and all therein, the ſame yeare wherein *L. Manlius* and *Q. Fulvius* were Conſuls, and which was from the foundation of the citie of Rome 575 yeares, advertiſed the Senat, That thoſe ſhields there, which for ſo long together were appointed and aſſigned thither by the Cenſors, were not of braſſe, as they had beene taken for, but of ſilver.

Concerning pictures, and the firſt originall of painters art, I am not able to reſolve and ſet downe any thing for certaine: neither is it a queſtion pertinent to my deſſigne and purpoſe, I am not ignorant, that the Ægyptians doe vaunt thereof, avouching that it was deviſed among them, and practiſed ſixe hundred yeares, before there was any talke or knowledge thereof in Greece: a vaine brag and oſtentation of theirs, as all the world may ſee. As for the Greeke writers, ſome aſ-
B cribe the invention of painting to the Sicyonians, others, to the Corinthians. But they all doe jointly agree in this, That the firſt pourtrait was nothing els but the bare pourfling and drawing onely the ſhaddow of a perſon unto his juſt proportion and lineaments. This firſt draught or ground, they began afterwards to lay with one ſimple colour, and no more: which kind of picture, after that they fell once to more curious workmanſhip, they called Monochromaton, that is to ſay, a pourtrait of one colour, for diſtinction ſake from other pictures of ſundrie colours: which notwithſtanding, yet this plaine manner of painting continueth at this day, and is much uſed. As for the linearie portraying or drawing ſhapes and proportions by lines alone, it is ſaid, That either *Philocles* the Ægyptian, or elſe *Cleanthes* the Corinthian was the inventor therof. But whoſoever deviſed it, certes *Ardices* the Corinthian, and *Telephanes* the Sicyonian, were the firſt
C that practiſed it. Howbeit colours they uſed none, yet they proceeded thus far as to diſperſe their lines within, as well as to draw the pourfle, and all with a coale and nothing elſe. And therefore their manner and order was to write alſo the names of ſuch as they thus painted, and alwaies to ſet them cloſe to the pictures. But the firſt that tooke upon him to paint with colour, was *Cleophantus* the Corinthian, who (as they ſay) tooke no more but a peece of a red potſherd, which he ground into pouder, and this was all the colour that he uſed. This *Cleophantus*, or ſome other of that name, was he, who by the teſtimonie of *Cornelius Nepos*, as I will anon ſhew more at large, accompanied *Demetrius* the father of *Tarquinius Priſcus* king of Rome, when he fled from Corinth to avoid the wrongs of *Cypſellus* the tyrant, who perſecuted and oppreſſed him. But it cannot bee ſo: for ſurely before this *Tarquines* time, the art of painting was growne to ſome perfection, even
D in Italie: for proofe whereof, extant there be at this day to be ſeene at Ardea within the temples there, antique pictures, and indeed more ancient than the citie of Rome: and I aſſure you, no pictures came ever to my ſight, which I wonder ſo much at, namely, that they ſhould continue ſo long, freſh, and as if they were but newly made, conſidering the places where they be, ſo ruinate and uncovered over head. Semblably, at Lanuvium there remaine yet two pictures of ladie *Atalanta* and queene *Helena*, cloſe one to the other, painted naked, by one and the ſame hand: both of them are for beautie incomparable, and yet a man may diſcerne the *one of them to be a mai- *i. Atalanta.
den by her modeſt and chaſt countenance; which pictures, notwithſtanding the ruins of the temple where they ſtand, are not a whit disfigured or defaced. Of late daies, *Pontius*, lieutenant under *C. Caligula* the Emperour, did what he could to have removed them out of the place, and caried
E them away whole and entier, upon a wanton affection and luſtfull fancie that he caſt unto them: but the plaſtre or porget of the wall whereupon they were painted, was of that temper that would not abide to be ſtirred. At Cære alſo there continue certaine pictures of greater antiquitie than thoſe which I have named. And verely, whoſoever ſhall well view & peruſe the rare workmanſhip therein, will confeſſe, that no art in the world grew ſooner to the height of abſolute perfection than it, conſidering that during the ſtate of Troy no man knew what painting was.

Chap. iiii.

Of Romanes that were excellent painters. When the art of painting came firſt into credit and eſtimation at Rome. What Romans they were that exhibited the pourtraits of their owne
F *victories in pictures. And about what time painted tables made by ſtrangers in forrain parts, were accepted and in great requeſt at Rome.*

AMong the Romanes alſo this Art grew betimes into reputation; as may appeare by the *Fabij*, a moſt noble and honourable houſe in Rome, who of this ſcience were ſurnamed *Pictores*,

Pictores, *i.* Painters. And the first who was entituled with that addition painted with his own hand G
the temple of *Salus*; and this was in the foure hundreth and fiftieth yeare after the foundation of
our citie: which painting continued to our age, even unto the time of *Claudius Cæsar* the Em-
perour, in whose daies the temple it selfe with the painting, was consumed with fire. Next after
this, the workmanship of *Pacuvius* the Poët (who likewise painted the chappell of *Hercules* in the
beast-market at Rome) was highly esteemed and gave much credit to the art. This *Pacuvius* was
Ennius the Poëts sisters sonne: and being as hee was a famous Tragædian besides, and of great
name upon the stage, the excellencie of his spirit that way, much commended at Rome his han-
dyworke and painting aforesaid. After him, I doe not find that any person of worth and qualitie
tooke pensill in hand and practised painting, unlesse haply a man would nominat *Turpilius* a gen-
tleman of Rome in our time, and a Venetian borne, of whose workmanship there bee many faire H
parcels of painting extant at this day in Verona: and yet this *Turpilius* was altogether left han-
ded, and painted therewith, a thing that I doe not heare any man did before him. As for *Aterius*
Labeo, a noble man of Rome, late lord Pretour, and who otherwise had been vice-Consull in
Gallia, Narbonensis or Languedoc, who lived to a very great age & died not long since, he pra-
ctised painting; and all his delight and glorie that he tooke, was in fine and small workes of a lit-
tle compasse: howbeit, hee was but laughed at and scorned for that qualitie, and in his time the
handicraft grew to be base and contemptible. Yet I thinke it not amisse to put downe for the bet-
ter credit of painters, a notable consultation held by certaine right honourable personages as
touching the art, and their resolution in the end. And this was the case: *Q. Pædius*, the little ne-
phew of *Q. Pædius* who had been Consull in his time and entred Rome in triumph, him I mean I
whom *C. Cæsar* Dictatour, made co-heire with *Augustus*, happened to be borne dumbe: and *Mes-*
sala the great Oratour, out of whose house the grandmother of this child was descended, beeing
carefull how the boy should be brought up; after mature advise and deliberation, thought good
that he should by signes and imitation be trained up in the art of painting, which counsell of his
was approoved also by *Augustus Cæsar*. And in truth, this young gentlemen beeing apt thereto,
profited marvellous much therein, and died in his youth. But the principall credit that painters
attained unto at Rome, was, as I take it, by the meanes of *M. Valerius Maximus*, first surnamed
Messala, who being one of the grand-seigneurs of Rome, was the first that proposed to the view
of all the world, and set up at a side of the stately hall or court Hostilia, one picture in a table,
wherein hee caused to be painted that battaile in Sicilie wherein himselfe had defeated the Car- K
thaginians and king *Hiero*: which happened in the yeare from the foundation of Rome 490. The
like also, I must needs say, did *L. Scipio*, and hung up a painted table in the Capitoll temple, con-
taining his victorie and conquest of Asia, whereupon he was surnamed *Asiaticus*. But (as it is said)
Africanus although he were his owne brother, was highly displeased therewith: and good cause
he had to be angrie and offended, because in that battaile his owne sonne was taken prisoner by
the enemie. The like offence was taken also by *Scipio Aemilianus*, against *Lucius Hostilius Man-*
cinus, who was the first that entered perforce the cittie of Carthage; for that hee had caused to
bee set up in the market place of Rome a faire painted table, wherein was lively drawne the
strong situation of Carthage, and the warlicke meanes used to the assaulting and winning of
it, together with all the particulars and circumstances thereof: which *Mancinus* himselfe in L
person sitting by the said picture, desciphered from point to point unto the people that came to
behold it; by which courtesie of his hee woon the hearts of the people, insomuch, as at the next
election of magistrates, his popularitie gained him a Consulship. In the publicke plaies which
Claudius Pulcher exhibited at Rome, the painted clothes about the stage and Theatre (which re-
presented building) brought this art into great admiration: for the workmanship was so artificiall
and lively, that the very ravens in the air, deceived with the likenesse of houses, flew thither apace
for to settle thereupon, supposing verely there had been tiles and crests indeed. And thus much
concerning painters craft, exercised in Rome.

To come now unto forraine pictures, *Lu. Mummius*, surnamed *Achaicus* (for his conqueft of
Asia) was the first man at Rome, who made open shew of painted tables wrought by straungers, M
and caused them to be of price and estimation: for when as in the port-sale of all the bootie and
pillage gotten in that victorie, king *Attalus* had bought one of them, wrought by the hand of
Aristides, containing the picture onely of god *Bacchus*, which was to cost him * six thousand Se-
sterces, *Mummius* wondering at the price, and supposing that this table had some speciall and se-

**VI. M. Sesterti-*
um.

cret

A cret propertie in it more than himselfe knew of, brake the bargaine, called for the picture againe, and would not suffer it to be caried away, notwithstanding *Attalus* complained much at the hard measure offered unto him; and so he brought it with him to Rome, and dedicated it in the chappell of *Ceres*. And verely, this I take to be the first painted table of a forrainers making, that ever was set up in publicke place at Rome. But after he had once begun, I see it was an ordinary thing to adorn and beautifie even the common place also with such like: for upon this occasion arose that pretie scoffe, which was given by *Crassus* the Oratour, as hee pleaded upon a time under the *old Rostra: for when there was a witnesse produced to depose against him, whom he would seem to challenge and reproved, whereupon the partie replied again, and urged him instantly in these tearmes: Speake out *Crassus*, & in the face of all this court say, What kind of person you would B make me to be? Marie (quoth hee) againe I take thee to bee such an one (pointing directly to a table hanging thereby, wherein was painted a certaine Frenchman yawning and lelling out his tongue full illfavoredly.) In the same Forum or Grand-place at Rome there stood sometime the picture of an old sheepeheard leaning upon his crooke, as touching which (for that as it should seeme, it was very workmanlike made) when a certaine Dutch Embassador who beheld it, was demaunded, At what price he esteemed it, answered short and quicke, What a question is that? I would not have such an one (were he alive, as I see he is but painted) though he were given mee for nothing. But if I should speake at once who it was that gave the greatest countenance unto such tables in open view, I must needs say it was *Cæsar* Dictatour, who shrined the pictures of *Ajax* and *Medea*, in no meaner place than before the temple of *Venus Genetrix*. Next after him C came *M. Agrippa*, a man by nature enclined rather to rusticitie than to delights, and more like a rude peasant than a civile gentleman: But surely there is extant a worthie Oration of his, and beseeming the principall person of a whole cittie, as touching the open sale of all painted tables, statues, and images, that were in the hands of privat men, and the setting of them up in publicke places for to adorne the citie: which no doubt had ben farre better, than to have them banished (as it were) and sent as they be into the countrey, for to beautifie manors and retiring houses of pleasure: howbeit, as sterne and grim a sir as hee was, hee could find in his heart to bestow upon two tables with the pictures of *Venus* and *Ajax*, twelve thousand sesterces, which hee paied unto the Cyzicenes for them. Also he had caused to be set in marble stone enchased, within the hotest part of his bathes, many rich pictures of a small making, and couched in small tables, the which D were taken away but a little before the said bathes were repaired. But above all that ever were, *Cæsar Augustus* the Emperour of famous memorie, did set up in the most frequented or conspicuous place of his Forum or stately hall, two excellent painted tables: the one containing the lively pourtrait of Warre, the other of Triumph. Hee also dedicated the pictures of *Castor* and *Pollux*, besides others, whereof I will write in my catalogue of Painters: which hee hung up all within the temple of *Iulius Cæsar* his father. The same *Augustus Cæsar* enclosed within the wall of that Curia, which he erected and consecrated in the common place named Comitium, two tables painted; the one resembling the forrest Nemea, in habit of a woman sitting upon a Lion, she carieth in her hand a Date tree, and there standeth by her an old man resting upon his staffe, over whose head there was a prettie tablet hanging downe as a labell, from a charriot drawne by E two horses, with this inscription, *Nicias me inusit*, *i. Nicias* ennamelled or wrought me with fire: for that verbe [*inusit*] it pleased him to use. As for the other table, the admirable workemanship therein was this, An old grey-beard accompanied with his sonne, a youth exceeding like unto his father, save onely for the difference in age which appeared in the young downe that sprung upon his cheekes and chin. A devise there was besides, of an Ægle flying over their heads, clasping a dragon within her tallons. And as it appeared by the superscription, *Philochares* was the workeman. By which one table (if there were no more but it in the whole world) a man may make an estimate of the infinite power that is in this art, which could cause the Senat and people of Rome to take such pleasure so many yeares together to looke upon *Glaucion* and his sonne *Aristippus*, persons otherwise most base and contemptible, onely in respect of *Philochares*, who F painted them. As for *Tiberius Cæsar* the Emperour, albeit he was a prince, of all other least courteous and affable, yet he delighted to hang up those painted tables within the temple of *Augustus Cæsar*, whereof I meane to write hereafter.

* *Sub veteribus*, which some interpret *Tabernis*.

Quintilianus reporteth this otherwise.

CHAP.

Chap. v.

The art and manner of painting. The colours that painters use.

THus farre forth may suffice to bee spoken of the auncient dignitie of that art, which beginneth alreadie to decay and die. What were the colours also that the first painters used in old time, when they drew their portraicts with one simple colour, I have written alreadie in my Treatise of Mines and Minerals, where I discoursed likewise of painters colours. Touching those that named certaine kinds of pictures Monochromatea, as also who enriched them with more colours, who invented this or that for the bettering and perfecting of them, and at what time each of these additions accrewed thereto, I meane to reserve unto my catalogue of painters: for the order and consequence of my worke requireth, that I should first set downe the nature of every colour.

First and formost therefore this is to bee noted, That in processe of time the artificer who began with one bare colour, found out the difference himselfe betweene * light and shaddow, and devised by this distinction, to set up and debase the one and the other alternatively, and the same more or lesse, according to his severall intentions. After these lights and shaddows, there was invented a kind of lustre or glosse, different from the light aforesaid; which because it is of a meane nature betweene the shade and the light, and doth participat of them both, they called by a Greek word Tonos. As for the apt coherence of one colour with another, the joint as it were betweene, and the passage from one to another, they named it Harmoge.

*i. White and blacke.

Chap. vi.

Of Painters colours, Naturall and Artificiall.

ALl colours be either sad or lively; and those be so, either naturally, or by artificiall mixture. Lively or gay colours be such, as the [1] maister delivereth unto the painter by weight and measure. As namely, [2] Vermillion, [3] Verd d'Azur, [4] Sang dragon, [5] Verd-de terre or Borras, [6] Indico, and [7] Rosett. The rest be sad or duskish: and as well the one as the other, bee all either naturall or artificiall. Among the naturall of this sort (to wit, the sad colours) I reckon the [8] common bole Armin, [9] Ruddell or red-stone, [10] Paræ tonium, [11] Melinum, [12] Eretria, and [13] Orpin. The rest of this kind be artificiall, and principally those which I have alreadie spoken of in the treatise of Mines. Moreover, of the baser sort are burnt Ochre, and Ruddell, Cerusse or Spanish white, Sandix minerall, and Scyricum, Sandaracha, Vitrioll or blacke. As for Sinopis or common bole Armin, found out first it was at Sinope, a maritime towne in the kingdome of Pontus, whereof it tooke that name: it groweth also in Ægypt, the Baleare Islands, and Affricke: but the best is found in the Island Lemnos, and in Cappadocia, digged out of certaine holes and caves. That which stucke fast unto the rockes, excelleth all the rest. The peeces of this earth, if a man doe breake, shew the own naturall colour which is not mixt: without-forth they be spotted. And this earth in old time was used for to give a lustre unto other colours. Of this Sinopis or bole Armin common, there be three kinds, the deepe red, the pale or weake red, and the mean between both. The best Sinopis is esteemed worth * thirteene denarij Roman by the pound; this may serve the painters pensill, yea or in grosser worke, if a man list to colour posts, beames, or wood: as for that which commeth out of Affricke, it is worth eight Asses every pound; and this they call Cicereulum: that which is redder than the rest, serveth better for painting of Tablements: as for that which is most browne and duskish, called in Latine Pressior, it is of the same price that the other, and employed in the bases and feet of such Tablements. And thus much for the use in painting. Touching Physicke and the medicinable properties thereof, mild it is of nature, and in that regard of gentle operation, whether it enter into hard emplaistres of a drie composition, or into emollitive plastres that are more liquid, and principally such as are devised for ulcers in any moist part, as the mouth or fundament. This earth, if it bee injected by a clystre, stoppeth a laske: and being given to women in drinke to the weight of one denarius, a dram, it staieth their immoderat fluxes of the matrice. The same burnt or calcined, drieth up the fretting roughnes of the eyes, principally if it be applied with vinegre. This kind of red earth some would have to bee counted in a second degree of Rubrica for goodnesse, for they alwaies reckoned that of Lemnos to be the cheefe;

[1] Because they be rich and costly.
[2] *Minium.*
[3] *Armenium.*
[4] *Cinnabaris.*
[5] *Chrysocolla.*
[6] *Indicum.*
Lacca mixta cum cerulco.
[7] *Purpurissum.*
[8] *Sinopis.*
[9] *Rubrica.*
[10] A white kind of fattie earth like plastre.
[11] A white earth like chalke.
[12] A whitish earth or ash-colour white.
[13] *Auripigmentum.*
* Or rather three denarij, for otherwise there were no proportion betweene it and the other of that kind.

A chiefe and simply best, as comming next in price to Minium, *i.* Vermillon. And in truth, this Terra Sigillata or Lemnia, was highly accounted of in old time, like as the Island Lemnos from whence it commeth: neither was it lawfull to sell any of it before it was * marked or sealed, and thereupon they used to call it Sphragis. The painters ordinarily lay a ground of this under their vermillon, and sophisticat it many waies. In physicke it is holden to be a soveraigne thing: for if the eyes be annointed round about therewith in manner of a liniment, it represseth the flux of rheumaticke humors and doth mitigat the paines incident unto them: the fistulous sores likewise about the angles or corners of the eyes, it drieth up that they shall not run as they use to doe. Inwardly also it is commonly given in vinegre, to such as cast up bloud at the mouth. It is taken also in drinke, for the opilations and other accidents as well of the spleene as kidnies: and besides,

B to stop the excessive fluxes that be incident unto women. Singular it is against any poison or venomous sting of serpents, either upon land or sea; and therefore is a familiar ingredient into all antidots or countrepoisons. Of all other sorts of red earth, the ruddle of Ægypt and Affricke is fittest for carpenters; for if they strike their line upon timber with it, they shall bee sure that it will take colour and be marked verie well. Moreover, another sort there is of this red earth mineral, found with yron ore, and the same is good also for painters. There is a kind of ruddle also made of ochre burnt and calcined in new earthen pots well luted all over: and the greater fire that it meeteth withall in the furnace, the better it is. In generall, any ruddle whatsoever is exiccative, in which regard it agreeth well with salves and healing plastres, and is verie proper for to represse shingles & such cutanean wildfires that will stand in drops. Take of Sinopis or Bolearmin com-

C mon that commeth out of Pontus *halfe a pound, of bright Sil or ochre ten pound, of the Greek white earth Melinum two pound; pun them all togither, and mix them well, so as they may ferment twelve daies togither: and hereof is made Leucophorum, that is to say, a kind of gum or size to lay under goldfoile for to guild timber.

Touching the white earth Parætonium, it carieth the name of a place in Ægypt from whence it commeth: and many say, that it is nothing but the fome of the sea, incorporat and hardned togither with the slime and mud of the shore: and therefore there bee winkles and such shell-fishes found therwith. It is engendred also in the Island Candie, and the country of Cyrenæ. At Rome they have a devise to sophisticat it, namely by boiling fullers earth untill it be of a fast and massie consistence: the price of the best is after six deniers the pound. Of all white colours it is the fatti-

D est, & for that it runneth out smooth in the working, it is the fastest parget to overcast wals withall.

As for the earth Melinum, white it is likewise; but the best is that which the Isle Melos doth yeeld, whereupon it tooke that name. In Samos also it is to be found, but painters use it not, because it is over clammie and unctuous. The Islanders are woont to creepe on all foure and to lie along at their worke when they dig it forth of the rocks, for search it they must among the veins that run therein. The same * operation it hath in physicke that the earth Eretria: also, if a man touch it with the tongue, he shall find it astringent and drying: howbeit, a depilatorie it is in some sort, and fetcheth away haire, or else causeth it to grow thin. A pound of it is worth a Sesterce.

There is of white colours a third kind, and that is Cerussa or white lead, the reason and making whereof, I have shewed in my discourse of Minerals: and yet there was found of it in the nature

E of a verie earth by it selfe at Smyrna, within the land belonging to one *Theodotus*, wherewith in old time they used to colour & paint ships. But in these daies we have no other ceruse or Spanish white but that which is artificiall, made of lead and vinegre, in manner aforesaid. As touching ceruse burnt, the invention thereof came by meere chaunce, upon occasion of a skare fire happning in the harbour of Piræum, which caught the pots and boxes wherein the Athenian dames that dwelt by the said harbor kept their blaunch of ceruse for complexion: and this ceruse thus calcined, the first that used in picture was *Nicias*, of whome I have alreadie spoken. The best that we have in these daies commeth out of Asia, and for that it enclineth to a purple colour, they call it Purpurea: a pound of it is sold for 16 deniers Romane. This also is made in Rome, namely by calcining Sil or ochre minerall, which standeth much upon marble, and then quenching it with

F vinegre. Such use the painters make therof thus burnt, that no shadows will doe well without it.

Concerning Eretria, another kind of white earth, it taketh the name of the place from whence it commeth. *Nicomachus* & *Parasius* used this colour much. In physick, it is found to be cooling and emollitive. Being burnt or calcined, it is an excellent incarnative: singular good for to drie any sore: proper also to be applied to the forhead for the headach: like as, to discover any festring

* With the image of a goat, as *Dioscorides* saith: or of *Diana*, according to *Galen*.

Thus *Dalechampius* readeth this place, according to *Philander*, out of *Dioscor.* and *Theophrast.* * *Selibra*, others read *Sex libræ*.

* *i.* To staunch bloud.

or rankling matter that lieth ſecret within: for if a place be anointed therewith, when it is reduced G
into a liniment with water, in caſe it wax not drie, be ſure there is ſome ſuppuration underneath.

As touching Sandaracha and Ochra, K. *Iuba* writeth, that they are to be found in Tapazus, an Iſland within the red ſea; but that which we have, was never brought from thence. How Sandaracha is engendred, I have ſaid alreadie in the diſcourſe of Mines. There is an artificiall and ſophiſticat Sandaracha, made of ceruſſe burnt in a furnace. The colour of Sandaracha ought to be fierie like a flame: a pound thereof is bought for five aſſes, *i.* halfe a denier. Calcine this and Ruddle togither, and of both, being concorporat in equall quantitie, you ſhall have the colour called Sandyx. Howbeit, I doe obſerve in *Virgil* that he tooke Sandyx for an hearb, as may appeare by this verſe:

Sponte ſua Sandyx paſcentes veſtiet agros. H
A ruddie fleece ſhall Sandyx yeeld,
To lambs, as they doe graze in field.

This Sandyx to bee bought and ſold, carrieth but halfe the price of Sandaracha: neither bee there any colours more weightie than theſe in the ballance.

Among the artificiall and made colours, I reckon Scyticum, which as I have alreadie ſaid, ſerveth for a good ground to take vermillon. The manner of making it, is to mix the beſt ruddle Sinopis and this Sandyx togither.

Painters blacke [called in Latine Atramentum] I count an artificiall colour, although I know there is a vitrioll or coperoſe going under that name, which is minerall, and is engendred two manner of waies: for either it iſſueth and ooſeth out of the mine in manner of a ſalt humor or liquor; or els there groweth an earth it ſelfe of a brimſtone colour, which ſerveth for it, that it may be drawne out thereof. Some painters have been knowne, who for to get black, have ſearched into ſepulchres for the coles there, among the reliques and aſhes of the dead. But in mine opinion, all theſe be but new deviſes, and fooliſh irregular toies without any reaſon: for a man need ſeeke no farther but to ſoot, and that made many waies, by burning either of roſin or pitch: in which regard, many have built places and forges of purpoſe to burne them in; without any emiſſaries, tunnels, or holes, that the ſaid ſmoke or ſoot may not get forth. But the beſt black in that manner made, commeth of the ſmoke of torchwood. This fine ſoot is ſophiſticat with the groſſe ſoot that doth gather and engender in forges, furnaces, and ſtouphs: and this is that inke wherewith we uſe to write our books. Some there be who take the lees or dregs of wine, and when it is dried, boile it throughly: and they affirme, that if the wine were good whereof thoſe lees came, the ſaid inke or black will make a colour like Indico. And in truth, *Polygnotus* and *Mycon* (two as renowmed painters as ever were) uſed no other blacke at all, but that which they made of the marre or refuſe of grapes after they be preſſed, & this they call Tryginon. *Apelles* deviſed a way by himſelfe, to make it of yvorie or the elephants tooth burnt, and this they named therupon Elephantinum. As touching the blacke called Indicum, it is brought out of India: but as yet I know not the manner either of the making or the engendring of it. A kind thereof I ſee the diers doe make, of that black flotey which ſticketh to their coppers. Alſo, there is a black made of torchwood burnt, and the coles that come of it punned to powder in a mortar. And heere commeth to my mind the wonderfull nature of the Cuttle fiſhes, which do yeeld a black humor from them like unto inke: howbeit, I do not find that painters or writers make any uſe thereof. But all blackes whatſoever take their perfection by ſunning: if it bee writing inke, with gum (Arabick;) if to colour pargetting or walls, with glew among: and looke what blacke is diſſolved and liquefied in vinegre, the ſame will hold well & hardly be waſhed off. And thus much of the ordinarie colours low prized.

Of all the colours beſides, which (as I ſaid once before) for their high price the poore painters be ſerved with from their maſters hands who ſet them on worke, the rich roſet or purple red that is made of Tripolie or goldſmiths earth, is ſimply the beſt: for this Tripolie is commonly died togither with purples; and no ſilke, wooll, or cloth, will ſo ſoone take that tincture, as it. The principall is that, which having had the floure of a fatt, hath drunk the fill as it were, whiles the liquor is yet boiling, and the drugs within the caudron be in their verdure and have not loſt the heart. M
When this firſt Tripolie thus deeply died, is caſt up and taken forth, that which is put in next into the ſaid liquor, is counted the ſecond in goodneſſe; and ſo conſequently by degrees: for the former evermore taketh the higher die, and the oftener you dip therein, the weaker will the tincture be: which is the reaſon that the roſet or purple red of Puteoli, is more commended, than either

A the Tyrian, Gætulian, or Lacedæmonian, notwithſtanding from thence ther come the moſt rich and pretious purples. The reaſon is, becauſe the Tripoli in Puteoli is died moſt with the juice of the Magaleb berries among, which yeeldeth the gallant red; and beſides, is forced to drink the tincture of Madder. That roſet which is made at Canuſium, is the worſt of all other, and carieth the loweſt price: a pound of roſet coſteth ordinarily * 30 deniers Roman. Painters or complexioners, when they would counterfeit a luſtre or gloſſe of vermillon, lay a ground firſt with Sandyx, and then charge roſet upon it with the white of an egg: but if they be deſirous to make a purple colour, the firſt courſe or ground is azur, and ſtraightwaies they come upon it with* roſet and the white of an egg aboveſaid. After this rich and lively roſat or purple-red, Indico is a colour moſt eſteemed: out of India it commeth; whereupon it tooke the name: and it is nothing els * but a

B ſlimie mud cleaving to the foame that gathereth about canes and reeds: whiles it is punned or ground, it looketh blacke; but being diſſolved, it yeeldeth a woonderfull lovely mixture of purple and azur. There is a ſecond ſort of it found ſwimming upon the coppers or vats in purple diers worke-houſes; and in truth, nothing els but the verie ſome or ſcum that the purple caſteth up as it boileth, in manner of a florey. Some there be that doe counterfeit and ſophiſticat Indico, ſelling in ſtead thereof pigeons dung, Selinuſian earth, or Tripoli, died and deeply coloured with the true Indico: but the proofe thereof is by fire; for caſt the right Indico upon live coles, it yeeldeth a flame of moſt excellent purple, and while it ſmoketh, the fume ſenteth of the ſea; which is the reaſon that ſome doe imagine it is gathered out of the rocks ſtanding in the ſea. Indico is valued at 20 denarij the pound. In phyſicke there is uſe of this Indico; for it doth aſſuage ſwellings

C that doe ſtretch the skin: it repreſſeth violent rheums and inflammations, and drieth ulcers.

The land of Armenia doth furniſh us with the colour of Verd d'azur, and of that countrey it is named Armenicus: a ſtone it is that is likewiſe died before it can die, in manner of Borras or verd de terre: the beſt is the greeneſt, & yet withall it doth participat the colour of azur; in which regard, it may properly be called verd d'azur. In times paſt a pound of it was held at 300 ſeſterces: but ſince time that there was found in Spaine a kind of ſand that would take the like tincture and doe as well, the price hath been well abated, and is come downe to ſix deniers. All the difference betweene this colour & azur, is this, For that it ſtandeth more upon the white, which cauſeth this colour to be lighter and and weaker. The only uſe that it hath in phyſicke, is to nouriſh hairs, and eſpecially thoſe of the eielids. Over and beſides all theſe colours abovenamed, there be two more

D newly come up, and thoſe beare but a verie low price; to wit, the green called Appianum, and oftentimes it is taken for Borras or verd de terre, as if there were not other things enough that did counterfeit and reſemble it: made it is of a certaine green chaulkie earth; and is worth but everie pound a ſeſterce. The ſecond new colour is a white, called Anulare, & it is that which in womens pictures giveth a lightſome carnation white: this alſo is made of a kind of chaulk, & certain glaſſie gems or bugles which the common fort uſe to weare in rings, & therupon it is called Anulare.

* *In ſingulas libras ad denarios triginta.*

* our painters in ſtead thereof uſe *Lac.*

* They ſay it is made of Oad: and in thoſe countries frō whēce it commeth, Gali of Nil.

Chap. vii.

What colours refuſe to be laid upon ſome grounds: with what colours they painted in old time: and when the fight of Sword-fencers were firſt propoſed to be ſeen at Rome.

E

OF all colours, Roſet, Indico, Azur, Tripoli or Melinum, Orpiment, white Lead or Ceruſſe; love not to be laid upon plaſtre-worke, or any ground, while it is moiſt: & yet wax will take any of theſe colours aboveſaid, to be emploied in thoſe kind of workes which are wrought by fire (ſo it be not upon plaſtre, parget, and wals, for that is impoſſible) whether they be enameld or damaskd; yea and in their painting of ſhips at ſea, as well hulks and hoies of burden, as gallies and ſhips of war: for now are we come (forſooth) to enamell & paint thoſe things that are in danger to periſh and be caſt away everie houre; ſo as we need not marveile any longer, that the coffin going with a dead corps to a funerall fire, is richly painted: and we take a delight when we mind to fight at ſea, to ſaile with our fleet gallantly dight & enriched with colours, which muſt cary us into

F daungers, either to our owne death, or els to the carnage of others. And when I conſider ſo many colours, and thoſe ſo variable, as be now adaies in uſe, I muſt needs enter into the admiration of thoſe artificers in old time; and namely, of *Apelles*, *Echion*, *Melanthius*, and *Nicomachus*, moſt excellent painters, and whoſe tables were ſold for as much apeece, as a good town was worth; & yet none of theſe uſed above four colors in all thoſe rich & durable works: And what might thoſe be?

Of all whites, they had the white Tripoli of Melos: for yellow ochres, they tooke that of Athens: G
for reds, they ſought no farther than to the red ochre or Sinopie ruddle in Pontus: & their black
was no other than ordinarie vitrioll or ſhoemakers blacke. And now adaies when wee have ſuch
plentie of purples that the very wals of our houſes pe painted all over therewith, when there com-
meth from India ſtore enough not onely of Indico, which the mud of their rivers doth yeeld, but
alſo of cinnambre, which is the mixed bloud of their fell dragons and mightie elephants, yet a-
mong all our moderne pictures we cannot ſhew one faire peece of worke: inſomuch as we may
conclude, All things were done better then, notwithſtanding the ſcarſitie that was of ſtuffe and
matter. But to ſay a truth, the reaſon is, Given we are now (as I have oftentimes ſaid) to eſteeme
of things that be rich and coſtly, never regarding the art that is emploied about them. And here
I thinke it not amiſſe to ſet downe the outrageous exceſſe of this age, as touching pictures: *Nero* H
the Emperour commaunded, that the pourtraict of himſelfe ſhould bee painted in linnen cloth,
after the manner of a gyantlike coloſſe, 120 foot high; a thing that never had been heard or
ſeene before. But ſee what became of it? when this monſtrous picture (which was drawne and
made in the garden of *Marius*) was done and finiſhed, the lightning and fire from heaven caught
it, and not onely conſumed it, but alſo burnt withall the beſt part of the building about the gar-
den. A ſlave of his enfranchiſing (as it is well knowne) when he was to exhibit at Antium certain
ſolemnities, and namely a ſpectacle of ſword-fencers fighting at ſharpe, cauſed all the ſcaffolds,
publicke galleries, and walking-places of that cittie, to be hung and tapiſſed with painted cloths,
wherein were repreſented the lively pictures of the ſword-plaiers themſelves, togither with all the
wifflers and ſervitors to them belonging. But to conclude, the beſt men and moſt magnanimous I
that for many a hundred yeers our countrey hath bred, have taken delight (I muſt needs ſay) in
this art, and ſet their minds upon good pictures. But to pourtraie in imagerie tables, and pain-
ted cloth, the publicke ſhews of fencers and ſword-players, and to ſet them up to be ſeen in open
place to the view of the world, began by *C. Terentius* a Lucan: for this man, to doe honour unto
his grandfather who had made him his owne ſonne by adoption, exhibited a ſhew for three daies
togither of thirtie paire of ſuch fencers fighting with unrebated ſwords: and a faire painted ta-
ble which carried the lively reſemblance of this ſpectacle, he ſet up and dedicated within the ſa-
cred grove of *Diana*.

Chap. VIII. K

This argumét or title reacheth to many chapters following.

The antiquitie of Painting, and the ſeverall ages wherein the famous Painters lived. A ſurvey of excellent Pictures, and the artificers that made them, togither with the prices that their workmanſhip was valued at: and notable pictures to the number of 305.

NOw will I after a curſorie ſort, run through all the famous profeſſours and artizans in this kind, and that with as great brevitie as poſſibly I can; for the ſcope that I have propoſed to my ſelfe, tendeth rather another way: and therefore let not the reader thinke much if I doe but touch the names of ſome, as it were paſſing by, and by occaſion of others whoſe cata- L
logue I meane to deliver. Howbeit, in making this haſt, my purpoſe is not to omit any excellent peece of worke which is worth the remembrance and relation, whether the ſame be extant at this day, or loſt and periſhed. Where I muſt advertiſe the readers, that in this argument my mea-
ning is not to ſtand much upon the authoritie of Greeke writers, who indeed deliver no certi-
tude, nor agree in their records as touching this point (notwithſtanding that they would ſeeme
diligent in that behalfe) and namely, in that they have written, That the excellent painters flouri-
ſhed ſo many Olympiads after the famous Imageurs; and have nominated for the firſt & chiefe
to have lived in name, about the time of the 90 Olympiad: whereas this is for certaine reported,
that *Phidias* himſelfe was a painter at the beginning, and that the noble ſhield of *Minerva* in A-
thens was by him painted: beſides, this is confeſſed and reſolved upon for a truth, that *Panæus* his M
brother lived in the 83 Olympias, and painted the inſide of the ſaid ſhield; who alſo in another
ſcutcheon of *Minerva*, which *Colores* the apprentice of *Phidias* had made; as alſo in making the
ſtatue of *Iupiter Olympius*, wrought with the ſaid *Colores* and helped him. But what ſhould I dwell
long in this matter? Is there any doubt made, that *Candaules* K. of Lydia, the laſt of the race and

familie

familie of the *Heraclidæ*, who also was commonly called *Myrsilus*, bought the painted table which contained the battaile of the Magnetes, and paid for it unto *Bularchus* (the painter or workman thereof) as much gold as it came to in weight. See of what price and estimation pictures were even in those daies! And needs it must be that this happened about that age wherein K. *Romulus* lived: for the said K. *Candaules* died in the 18 Olympias; or as some write, in that verie yeere that *Romulus* departed this life: at what time this skill of painting (if I be not much deceived) was in great request everie where, and growne alreadie to an absolute perfection. Which being graunted, as of necessitie it cannot be denied, evident and apparent it is, that the originall and beginning of this art, was much more auncient: and that those painters who used one colour and no more in their plain draughts called Monocromata, (to wit, *Hygiænon*, *Dinias*, and *Charmas*) lived a good while before, although it be not recorded in any writer in what age precisely they flourished: as also that *Eumarus* the Athenian painter, who devised first to distinguish male & female in painting; and besides, undertooke to draw with his pencill the proportion and shape of any thing that he saw; togither with *Cimon* the Cleonæan, who followed his steps, and practised his inventions, could not chuse but by all congruitie and consequence bee of more antiquitie than *Bularchus* aforesaid, or the reigne of *Romulus* and *Candaules*. This *Cimon* devised the works called Catagrapha, that is to say, pourtraicts and images standing byas and sidelong: the sundrie habits also of the visage and cast of the eye, making them to looke, some backeward over their shoulders, others aloft, and some againe downeward: his cunning it was to shew in a picture, the knitting of the members in everie joynt: to make the veines appeare how they braunched and spread: and besides, the first he was that counterfeited in flat pictures, the plaits, folds, wrinkles, and hollow lappets of a garment. As touching *Phanæus* the brother of *Phidias*, hee painted also the battaile betweene the Athenians and the Persians, upon the plains of Marathon: for now by this time were painters furnished in some sort with colours to their purpose; and the art was growne to such perfection, that in the picture resembling the said battaile, the full personages were pourtraied most lively, of the captains on both sides, to wit, *Miltiades*, *Callimachus*, and *Cynegyrus*, for the Athenians; *Datis* also and *Artaphenes*, for the Barbarians or Persians.

Chap. IX.

The Painters that first entred into contention for to win the prize by their Art: and who devised to paint with the pencill.

Moreover, during the time that the above-named *Panæus* flourished, there were prises proposed at Corinth and Delphos, for those painters that could win them: and the first that strived for the best game, was the said *Panæus*, who challenged *Timagoras* the Chalcidian upon this occasion, That the same *Timagoras* had given him the foil before at the Pythian games: which also doth appeare by certain verses composed by *Timagoras* himselfe as touching that argument, which savour of great antiquitie. Whereby the errour of Chronielers beforesaid is manifestly convinced, who have failed much in the calculation of the times. Furthermore, besides these painters above rehearsed, others there were of great name, and yet all of them before that nintith Olympiad whereof they write; as namely, *Polygnotus* the Thasian, who was the first that painted women in gay and light apparell, with their hoods and other head attire of sundrie colours: and in one word, passed all others before him in devises, for the bettering of this art. His invention it was to paint images with their mouths open, to make them shew their teeth; and in one word, represented much varietie of countenance, farre different from the rigorous and heavie looke of the visage beforetime. Of this *Polygnotus* workmanship, is that picture in a table which now standeth in the stately gallerie of *Pompeius*, and hung sometime before the Curia or Hall that beareth his name, in which table he painted one upon a scaling ladder, with a targuet in his hand; but so artificially it is done and with such dexteritie, that whosoever looketh upon him, cannot tell whether he is climbing up or comming downe. All the painting of *Apollo* his temple at Delphos, was of this mans doing: who also beautified with pictures, the great gallerie or walking place at Athens, which thereupon was called Pœcile: and this he did *gratis*, & would not take one penie for it: whereas *Mycon* afore him, painted one part thereof, and was well paid for his workemanship: which liberall mind of his, wan him the greater credit and honour besides: for by a decree from the Amphyctions (who are the lords of the publicke counsell of state

in Greece) it was granted, that in all cities and towns of Greece whereſoever he came, he ſhould G
be lodged and entertained of free-coſt. Beſides that *Mycon* before mentioned, there was another of the name, diſtinguiſhed onely by this, That the former was called *Mycon* the elder, and this, *Mycon* the younger, who had a daughter named *Timarete*, and ſhee could paint likewiſe excellently. But to come now unto that nintith Olympias, there flouriſhed in that time *Aglaophon*, *Cephiſſodorus*, *Phrylus*, and *Euenor* who was both father and maſter unto *Paraſius* that moſt renowmed painter, of whome I purpoſe to ſpeake in his ranke when the time comes; all theſe were reputed verie good artizans in their time, howbeit not ſo excellent that I ſhould need ſtand long upon them or their workemanſhip, making haſt as I doe unto thoſe glorious and glittering painters indeed, who ſhine as bright ſtars above all their fellows: among whome, *Apollodorus* the Athenian was the firſt that gave light, and hee lived in the 93 Olympias: This man led the way to H
others, and taught them to expreſſe the favour and beautie of any thing, which he obſerved eſpecially: of whome I may well and truly ſay, that he and none before him brought the pencill into a glorious name and eſpeciall credit. Of his making there is one picture, of a prieſt at his devotions, praying and worſhipping: as alſo another repreſenting *Ajax*, all on a flaming fire with a flaſh of lightning, which at this day is to bee ſeene at Pergamus, as an excellent peece of worke. And verely before his dais there cannot be ſhewed a table of any ones painting worth the ſight, and which a man would take pleaſure to behold and looke upon any long time.

When this man had opened the dore once, and ſhewed the way to this art, *Zeuxis* of Heraclea entred in, and that was in the fourth yeere of the 95 * Olympias: and now that the pencill I
was taken in hand (for now I ſpeake thereof) hee ſeeing that it made good worke, followed on therewith, and by continuall practiſe brought the ſame to great perfection, wherby he wan much credit to the art, and reputation to himſelfe. Some writers there be, who raunge him wrong in the 89 Olympias; at which time it muſt needs bee, that *Demophilus* the Himeræan and *Neſeas* the Thracian lived; for to one of them apprentice hee was, but whether of the two was his maſter, there is ſome doubt made: and verely ſo excellent hee prooved in his art, that the abovenamed *Apollodorus* made verſes of him: in which he ſignifieth, that *Zeuxes* had ſtolne the cunning from them all, and he alone went away with the art. He grew in proceſſe of time to ſuch wealth by the means onely of his excellent hand, that for to make ſhew how rich he was, when hee went to the ſolemnitie of the games at Olympia, he cauſed his owne name to be embrodered in golden letters, within the lozenge-worke of his clokes, whereof hee had chaunge, and which hee brought K
thither to be ſeene. In the end, hee reſolved with himſelfe to worke no longer for money, but to give away all his pictures, ſaying, That he valued them above any price. Thus he beſtowed upon the Agrigentines, one picture of queene *Alcmena*: and to king *Archelaus* hee gave another of the ruſticall god *Pan*: there was alſo the pourtraict of ladie *Penelope*, which he drew in colours; wherein hee ſeemeth not onely to have depainted the outward perſonage and feature of the bodie, but alſo to have expreſſed moſt lively the inward affections and qualities of her mind: and much ſpeech there is of a wreſtler or champion of his peinting, in which picture he pleaſed himſelfe ſo well, that hee ſubſcribed this verſe under it, * *Inviſurus aliquis facilius quam imitaturus: i.* Sooner will a man envie me, than ſet ſuch another by me. Which thereupon grew to be a by-word in everie mans mouth. One ſtately picture there is of his workemanſhip, *Iupiter* ſitting upon a throne in his majeſtie, with all the other gods ſtanding by and making court unto him. Hee pourtraied *Hercules* alſo as a babe lying in the cradle, and ſtrangling two fell ſerpents with his hand, togither with his mother *Alcmena*, and her husband K. *Amphytrion* in place, affrighted both at the ſight thereof. Howbeit, this *Zeuxis* as excellent a painter as he was, is noted for one fault and imperfection; namely, that the head and joynts of his pourtraicts, were in proportion to the reſt ſomewhat with the biggeſt: for otherwiſe ſo curious and exquiſit he was, that when hee ſhould make a table with a picture for the Agrigentines, to be ſet up in the temple of *Iuno Lacinia*, at the charges of the citie, according to a vow that they had made, hee would needs ſee all the maidens of the citie, naked; and from all that companie hee choſe five of the faireſt to take out as from ſeverall patterns, whatſoever hee liked beſt in any of them; and of all the lovely parts of M
thoſe five, to make one bodie of incomparable beautie. Many draughts he made of one colour, in white. There lived in his time *Timanthes*, *Androcydes*, *Eupompus*, and *Paraſius*, who were his concurrents and thought as well of themſelves as he did.

* For *Olympias* was counted the ſpace of five yeers.

* *Græcè melius,* μιμήσεται τίς μᾶλλον, ἢ μιμήσεται: which Iambick verſe ſome attribute to *Apollodorus.*

CHAP.

A

Chap. x.

Of birds deceived by pictures. What is the hardeſt point in the art of painting?

Of thoſe foure beforenamed, *Paraſius* by report was ſo bold as to challenge *Zeuxis* openly and to enter the liſts with him for the victorie: in which contention and triall, *Zeuxis* for proofe of his cunning, brought upon the ſcaffold a table, wherein were cluſtres of grapes ſo lively painted, that the very birds of the aire flew flocking thither for to bee pecking at the grapes. *Paraſius* againe for his part to ſhew his workmanſhip, came with another picture, where-
B in he had painted a linnen ſheet, ſo like unto a ſheet indeed, that *Zeuxis* in a glorious bravery and pride of his heart, becauſe the birds had approoved of his handyworke, came unto *Paraſius* with theſe words by way of a ſcorne and frumpe, Come on ſir, away with your ſheet once, that we may ſee your goodly picture: But taking himſelfe with the manner, and perceiving his owne error, hee was mightily abaſhed, & like an honeſt minded man yeelded the victory unto his adverſary, ſaying withall, *Zeuxis* hath beguiled poore birds, but *Parrhaſius* hath deceived *Zeuxis*, a profeſſed artiſane. This *Zeuxis*, as it is reported, painted afterwards another table, wherein hee had made a boy carying certaine bunches of grapes in a flasket, and ſeeing againe that the birds flew to the grapes, he ſhooke the head, and comming to his picture, with the like ingenuous mind as before, brake out into theſe words, and ſayd, Ah, I ſee well ynough where I have failed, I have painted the
C grapes better than the boy, for if I had done him as naturally, the birds would have beene afraid and never approched the grapes. He pourtraied alſo diverſe peeces of earthen veſſels in potterie, which onely were left behind in Ambracia, at what time as *Fulvius* ſurnamed *Nobilior*, remooved the Muſes from thence of his pourtraying, and brought them to Rome. Moreover, there remaineth yet at Rome within the galleries of *Philippus*, the picture of *Helena*, wrought by the hand of *Zeuxis*: and in the temple of *Concord* another, reſembling *Marſyas* the Muſician bound to a tree.

As for *Paraſius* beforenamed, borne he was at Epheſus, and invented alſo diverſe things of himſelfe to the advancement of this art: for the firſt he was that gave the true ſymmetrie to a portraiture, and obſerved the juſt proportions: hee firſt exactly kept the ſundrie habits and geſtures
D of the countenance: hee it was, that firſt ſtood upon the curious workmanſhip of couching and laying the haires of the head in order: the lovely grace and beautie about the mouth and lips, he firſt exactly expreſſed: and by the confeſſion of all painters that ſaw his worke, hee woon the priſe and praiſe from them all in making up the pourfils and extenuities of his lineaments, which is the principall point and hardeſt matter belonging to the whole art: For to draw forth the bodily proportion of things, to hach alſo, yea and to fill within, requireth (I confeſſe) much labour and good workemanſhip; but many have been excellent in that behalfe: marie to pourfill well, that is to ſay, to make the extremities of any part, to marke duly the deviſions of parcels, and to give every one their juſt compaſſe and meaſure, is exceeding difficult, and few when they come to the
E doing of it, have beene found to attaine unto that felicitie. For the utmoſt edge of a worke muſt fall round upon it ſelfe, and ſo knit up in the end, as if it ſhaddowed ſomwhat behind, and yet ſhewed that which it ſeemeth to hide. In this ſo curious and inexplicable a point, *Antigonus* and *Xenocrates* both, who wrote as touching this art, have given him the honour of the beſt: not onely confeſſing his ſingular gift herein, but alſo commending him for it. Many other plots and projects there doe remaine of his drawing, pourtraied as well in tables as upon parchment, which ſerve as patternes (they ſay) for painters to learne much cunning by. And yet for inward workes, and to expreſſe the middle parts of a pourtraiture, he ſeemeth not ſo perfect, nor anſwereable to himſelfe otherwiſe. There is a notable picture of his making, which he called **Demon Athenienſium*, that is to ſay, the common people of the Athenians: the deviſe whereof was paſſing full of wit and very inventive: for his intention was in one and the ſame pourtraict, and under one ob-
F ject of the eye to expreſſe the nature of the people, variable, wrathfull, unjuſt, and unconſtant; the ſame alſo he would have to appeare exorable, mild, and pitifull; haughtie, glorious & proud, and yet humble, lowly, and ſubmiſſe; fierce and furious, and the ſame coward, and ready to runne away: all theſe properties, I ſay, he repreſented under one caſt of the eye. This workman painted alſo *Theſeus*, which ſtood ſometimes in the Capitoll of Rome: a certaine Admirall likewiſe of a navie,

* τὸν δῆμον.

navie, armed with a corselet. In one table also which is at Rhodes, he depainted *Meleager*, *Hercules*, and *Perseus*. This table was thrice blasted with lightening; howbeit, the pictures were not defaced, but remained whole and entire as at the first: a miraculous thing, and that which maketh much for the credit of the picture. *Archigallus* was of his painting; a picture that *Tiberius* the Emperour tooke great pleasure in; and as *Eculeo* mine author doth testifie, he esteemed it worth sixtie thousand sesterces, and enclosed it within his bed-chamber. Moreover, hee counterfeited one *Cressa* a nource, with her infant in her armes: he pourtraied *Philiscus*, and god *Bacchus*, with the goddesse *Vertue* standing by him: also two boyes; on whom a man might see most lively resembled, the carelesnesse and simplicitie of that age: likewise, a priest, attended upon with a prettie boy, holding a censar in his hand, and a coronet. Over and besides, two pictures there be of his handiworke, going under the name of *Hoplitides*, *i.* armed: the one running in his armour in battaile-wise, so as hee seemeth all in a sweat: the other disarming himselfe, all wearied, so as a man would thinke his wind were gone, or that hee drew it very short. Great praise there is of one table of his, wherein are painted, *Aeneas*, *Castor*, and *Pollux*: also of another, which contained *Telephus*, *Achilles*, *Agamemnon*, and *Ulysses*. An artisane full of worke, and who evermore would bee doing one thing or other; but so arrogant withall, as no man ever shewed more insolencie than he, in regard that he was cunning and well thought of: which hee knew well ynough, and no man needed to tell him. In this prowd spirit of his, hee would take upon him divers titles and additions to his name: among others, he would call himselfe* *Abrodiætus*: and other words he used, whereby he would make himselfe knowne that he was the prince of Painters, and the art by him made perfect and accomplished. But it exceedeth how vaine-glorious he shewed himselfe, in that he gave out, he was in right line descended from *Apollo*: also that the pourtrait of *Hercules*, which is in a table at Lindos, he drew from the very person of *Hercules* himselfe, answerable in all points to the proportion and lineaments of his bodie; who (by his saying) had appeared unto him oftentimes in his sleepe of purpose, that he might paint him lively as he was. In this veine of vanitie, beeing upon a time put downe by *Timanthes* the painter at Samos, where, by the judgement of all that were present, his picture representing *Ajax*, and the awarding of the armor of *Achilles* from him to *Ulyxes*, was not thought comparable to another of *Timanthes* his making: I am ill apaied (quoth he) and sorie at the heart, for this noble knight and brave warrior *Ajax*, whose evill hap it is thus to be foiled once againe by so unworthie a wight, and a farre meaner person than himselfe. Hee delighted also to paint small pictures in pretie tables, and those representing wantonnesse & letcherie: and this he did (as he was wont to say) for his recreation, and as it were to breath himselfe when he had laboured hard at greater workes.

*That is to say, fine, delicat, & sumptuous: for he would be in his purple, or his goldé chaplets, his staffe tipt with gold, and his shoe-buckles of the same.

As for *Timanthes*, an excellent fine wit he had of his own, & full he was of rare inventions. He it was that made the famous picture of *Iphigenia*, so highly commended by eloquent Orators. And to say a truth, his conceit therein was admirable: for when he had devised that the poor innocent ladie should stand hard at the altar readie to be slain for sacrifice, and had painted those that were present about her, with heavie and sad countenance, weeping and wailing all for the instant death of this young princesse, and her unckle *Menelaus* above the rest, full of sorrow and lamentation, and shewing the same as much as possibly might bee: having by this time spent in them all the signes that might testifie the hearts greefe, and that he was come to pourtray her own father *Agamemnon*, hee represented his visage covered with a vaile, for that hee was not able to expresse sufficiently the extraordinarie sorrow above the rest which he had to see his owne daughter sacrificed, and her guiltlesse bloud spilt. Other peeces of worke there be, patternes all of singular wit: among the rest, he devised within a very small table, a Cyclops lying asleepe: and yet because hee would seeme even in that little compasse to shew his giant-like bignesse, hee devised withall to paint little elvish Satyres hard by, and those taking measure of one of his thumbs with long perches. In summe, so inventive he was, that in the works which passed through his hands, a man shall ever conceive & understand some hidden thing within more than is painted without: for albeit a man shall see in his pictures as much art as may be, yet his wit went alwaies beyond his art. Moreover, his picture of a prince was thought to bee most absolute; the majestie whereof is such, that all the art of painting a man, seemeth to be comprised in that one pourtrait. This peece of worke remaineth at this day within the temple of *Peace* in Rome.

In this age flourished *Euxenidas*, and taught *Aristides* his cunning, who proved afterwards a singular workman. *Eupompus* also trained up *Pamphilus* the painter under him, whose apprentise

was

A was *Apelles*. There is a fine picture of *Eupompus* his making, to wit, one who had obtained the victorie at the publicke Gymnicke exercises of activitie, painted naked as hee performed his devoire, holding in his hand the braunch of a Date tree. This *Eupompus* was of such authority, that whereas before his time there were but two kinds of Pictures, to wit, Helladicum, *i.* the Greekish; and Asiaticum, *i.* Asiaticke, he brought in a new devision, and made three distinct members thereof: for in love of him, because he was a Sicyonian born, the foresaid Helladicum being parted in twaine, there arose these three severall sorts, the Ionicke, Sicyonian, and the Atticke.

As for *Pamphilus*, renowned he was for painting a confraternitie or kinred: the battell fought before Phlius, and the victorie of the Athenians: semblably, of his making is the picture of *Vlixes* in a punt or small bottome. Himselfe was a Macedonian borne, but of all painters, the first
B that gave his mind to other good literature, and especially to Arithmetick and Geometrie: without the insight of which two Sciences, hee was of opinion, that unpossible it was to bee a perfect painter. He taught none his cunning under a *talent of silver for tenne yeares together: and thus much paied *Apelles* and *Melanthus* unto him, for to learn his art. His authority brought to passe, that ordained it was first at Sicyone, and so consequently throughout all Greece, that gentlemens sonnes and free borne should goe to painting schoole, and there bee taught first above all other things the art Diagraphice, that is to say, the skill to draw and paint in box tables: and for the credit of painters, he brought to passe, that the art should be raunged in the first degree of liberall Sciences. And verely, this craft of painting hath been alwaies of that good respect and so honoured, that none but gentlemen and free borne at the first beginning medled therwith, yea, and
C afterwards honourable personages gave themselves to the practise therof, with this charge, from time to time, To teach no slave the mysterie of painting, who by a strict and perpetuall edict were excluded from the benefit thereof. Neither shall you ever heare of any peece either of picture or graverie and embossing that came out of a servile hand.

*Minoris talento annis decem: yet *Budæus* readeth, *annuis talentis decē*, *i.* ten talents by the yeare.

Furthermore, about the hundred and seventh Olympias, there flourished *Echion* and *Therimachus*, two renowmed painters: As for *Echion*, ennobled he is for these pictures, god *Bacchus*, a Tragœdie & a Comœdie, represented by painting; also *Semiramis*, who of a bond-maiden came to be a queene; an auncient woman carrying a torch or lampe going before a yong wife new wedded, and leading her to the bride bed, who followeth with a modest, shamefast, and bashfull countenance, most apparent to the eye.

D But what should I speake of these painters, when as *Apelles* surmounted all that either were before or came after. This *Apelles* flourished about the hundred and twelfth Olympias, by which time hee became so consummat and accomplished in the art, that hee alone did illustrat and enrich it as much, if not more, than all his predecessours besides: who compiled also divers books, wherein the rules and principles, yea, and the very secrets of the art are comprised. The speciall gift that he had, was this, that he was able to give his pictures a certaine lovely grace inimitable: and yet there were in his time most famous and worthie painters whome hee advaunced, whose workes when he beheld, hee would praise them all, howbeit, not without a but: for his ordinarie phrase was this: Here is an excellent picture, but that it wanteth one thing, and that is the *Venus* which it should have: which *Venus* the Greekes call *Charis*, as one would say, the grace: And in
E truth, hee would confesse, that other mens pictures had all things els that they should have, this onely excepted; wherein he was persuaded, that he had not his peere or second. Moreover, he attributed unto himselfe another propertie, wherein hee gloried not a little, and that was this, that hee could see to make an end when a thing was well done. For beholding wistly upon a time a peece of worke of *Protogenes* his doing, wherein hee saw there was infinit paines taken, admiring also the exceeding curiositie of the man in each point beyond all measure, hee confessed & said, That *Protogenes* in every thing els had done as well as himselfe could have done, yea, and better too. But in one thing he surpassed *Protogenes*, for that he could not skill of laying worke out of his hand, when it was finished well ynough: a memorable admonition, teaching us all, That double diligence and overmuch curiositie, doth hurt otherwhiles. This painter was not more renowmed
F for his skill and excellencie in art, than he was commended for his simplicitie and singlenesse of heart: for as he gave place to *Amphion* in disposition, so he yeelded to *Asclepiodorus* in measures and proportion, that is to say, in the just knowledge how farre distant one thing ought to be from another. And to this purpose, impertinent it is not to report a pretie occurrent that fell between *Protogenes* and him: for being very desirous to be acquainted with *Protogenes*, a man whom hee had

had never ſeene, and of his workes, whereof there went ſo great a name, he embarked and ſailed G
to Rhodes, where *Protogenes* dwelt: and no ſooner was he landed, but he enquired where his ſhop
was, and foorthwith went directly thither: *Protogenes* himſelfe was not at home, onely there was
an old woman in the houſe who had the keeping of a mightie large table ſet in a frame, and fitted
readie for a picture. And when hee enquired for *Protogenes*, ſhee made anſwere, that hee was not
within; and ſeeing him therupon readie to depart, demaunded what his name was, and who ſhe
ſhould tell her maiſter asked for him. *Apelles* then, ſeeing the foreſaid table ſtanding before him,
tooke a penſill in hand and drew in colour a paſſing fine and ſmall line through the ſaid table, ſay-
ing to the woman, Tell thy maiſter, that he who made this line, enquired for him, and ſo he went
his waies. Now when *Protogenes* was returned home, the old woman made relation unto him of
this that happened in his abſence. And, as it is reported, the artificer had no ſooner ſeene and be- H
held the draught of this ſmall line, but he knew who had beene there, and ſaid withall, Surely *A-*
pelles is come to towne: for unpoſſible it is, that any but hee ſhould make in colour ſo fine worke-
manſhip. With that he takes me the penſill, and with another colour drew within the ſame line a
ſmaller than it: willing the woman when he went foorth of dores, that if the partie came againe,
ſhe ſhould ſhew him what he had done, and ſay withall, that there was the man whom hee enqui-
red after. And ſo it fell out indeed, for *Apelles* made an errand againe to the ſhop, and ſeeing the
ſecond line, was diſmaied at firſt and bluſhed withall to ſee himſelfe thus overcome: but taking
his penſill, cut the foreſaid lines throughout the length, with a third colour diſtinct from the reſt,
and left no roume at all for a fourth to be drawne within it: Which when *Protogenes* ſaw, hee con-
feſſed that he had met with his match and his maiſter both, and made all the haſt he could to the I
haven to ſeeke for *Apelles* to bid him welcome and give him friendly entertainement. In memo-
riall whereof it was thought good both by the one and the other, to leave unto poſteritie this ta-
ble thus naked, without any more worke in it, to the wonder of all men that ever ſaw it, but of cun-
ning artiſanes and painters eſpecially: for this table was kept a long time, and as it is well known,
conſumed to aſhes in that firſt fire that caught *Cæſars* houſe within the Palatine hill. And verely,
wee tooke great pleaſure before that, to ſee it many times, containing in that large and extra-
ordinarie capacitie which it had, nothing in the world than certaine lines, which were ſo fine and
ſmall, that unneath or hardly they could be diſcerned by the eye. And in truth, when it ſtood a-
mong the excellent painted tables of many other workemen, it ſeemed a verie blanke, having
nothing in it: howbeit, as void and naked as it was, it drew many a one unto it even in that reſpect, K
being more looked upon and eſteemed better than any other rich and curious work whatſoever.
But to come againe unto *Apelles*, this was his manner and cuſtome beſides, which he perpetual-
ly obſerved, that no day went over his head, but what buſineſſe ſoever hee had otherwiſe to call
him away, hee would make one draught or other, (and never miſſe) for to exerciſe his hand and
keepe it in ure, inſomuch, as from him grew the proverb, *Nulla dies ſine Linea*, *i.* Be alwaies doing
ſomewhat, though you doe but draw a line. His order was when he had finiſhed a peece of worke
or painted table, and laid it out of his hand, to ſet it forth in ſome open gallerie or thorow-fare to
be ſeene of folke that paſſed by, and himſelfe would lie cloſe behind it to hearken what faults were
found therewith; preferring the judgement of the common people before his owne, and imagi-
ning they would ſpie more narrowly and cenſure his doings ſooner than himſelfe: and as the L
tale is told, it fell out upon a time, that a ſhoemaker as he went by ſeemed to controule his worke-
manſhip about the ſhoe or pantophle that he had made to a picture, and namely, that there was
one latchet fewer than there ſhould bee: *Apelles* acknowledging that the man ſaid true indeed,
mended that fault by the next morning, and ſet forth his table as his manner was. The ſame ſho-
maker comming again the morrow after, and finding the want ſupplied which he noted the day
before, tooke ſome pride unto himſelfe, that his former admonition had ſped ſo well, and was ſo
bold as to cavill at ſomewhat about the leg: *Apelles* could not endure that, but putting forth his
head from behind the painted table, and ſcorning thus to be checked & reprooved, Sirrha (quoth
he) remember you are but a ſhoemaker, and therefore meddle no higher I adviſe you, than with
ſhoes: which word alſo of his came afterwards to bee a common proverbe, *Ne ſutor ſupra crepi-* M
dam. Over and beſides, very courteous he was and faire ſpoken, in which regard king *Alexander*
the Great accepted the better of him, and much frequented his ſhop in his owne perſon: for, as
I have beforeſaid, he gave ſtreight commaundement, That no painter ſhould be ſo hardie as to
make his picture but onely *Apelles*. Now when the king beeing in his ſhop, would ſeeme to talke

much

much and reaſon about his art, and many times let fall ſome words to little purpoſe, bewraying his ignorance; *Apelles* after his mild manner, would deſire his grace to hold his peace, and ſay, Sir, no more words, for feare the prentiſe boies there that are grinding of colours, doe laugh you to ſcorne: So reverently thought the king of him, that being otherwiſe a chollericke prince, yet hee would take any word at his hands in that familiar ſort ſpoken in the beſt part, and bee never offended. And verely, what good reckoning *Alexander* made of him, he ſhewed by one notable argument; for having among his concubines one named *Campaſpe*, whom hee fancied eſpecially above the reſt, in regard as well of that affection of his as her incomparable beautie, he gave commaundement to *Apelles* for to draw her picture all naked: but perceiving *Apelles* at the ſame time to be wounded with the like dart of love as well as himſelf, he beſtowed her upon him moſt frankly: By which example hee ſhewed moreover, that how great a commaunder and high minded a prince he was otherwiſe, yet in this maiſtering and commaunding of his affections, his magnanimitie was more ſeene: and in this act of his he wan as much honour and glorie as by any victory over his enemies, for now hee had conquered himſelfe, and not onely made *Apelles* partner with him of his love, but alſo gave his affection cleane away from her unto him, nothing moved with the reſpect of her whom before he ſo dearly loved, that being the concubine of a king, ſhe ſhould now become the bedfellow of a painter. Some are of opinion, That by the patterne of this *Campaſpe*, *Apelles* made the picture of *Venus** *Anadyomene*. Moreover, *Apelles* was of a kind bountifull diſpoſition even to other painters of his time, who commonly as concurrents, do envie one another. And the firſt hee was that brought *Protogenes* into credit and eſtimation at Rhodes; for at the firſt, his owne countreyman made no account at all of him (a thing ordinarily ſeen, that in our owne countrey we are leaſt regarded) but *Apelles*, for to countenance and credit the man, demanded of him what price he would ſet of all the pictures that he had readie made; *Protogenes* asked ſome ſmall matter and trifle to ſpeake of: howbeit, *Apelles* eſteemed them at fiftie talents, & promiſed to give ſo much for them: raiſing a bruit by this meanes abroad in the world, that hee bought them for to ſell againe as his owne. The Rhodians hereat were moved and ſtirred up to take better knowledge of *Protogenes*, what an excellent workman they had of him: neither would *Protogenes* part with any of his pictures unto them, unleſſe they would come off roundly and riſe to a better price than beforetime. As for *Apelles*, he had ſuch a dexteritie in drawing pourtraits ſo lively, and ſo neare reſembling thoſe for whom they were made, that hardly one could be knowne from the other; inſomuch, as *Appion* the Grammarian hath left in writing (a thing incredible to be ſpoken) that a certaine Phyſiognomiſt or teller of Fortune, by looking onely upon the face men and women, ſuch as the Greekes call Metopoſcopos, judged truly by the pourtraits that *Apelles* had drawne, how many yeares they either had lived or were to live, for whom thoſe pi[c]t were made. But as gracious as he was otherwiſe with *Alexander* and his traine, yet he could win the love and favor of prince *Ptolomæus*, who at that time followed the court of K. *Al[e]* and was afterwards king of Ægypt. It fortuned, that after the deceaſe of *Alexander*, an the reigne of king *Ptolomæ* aforeſaid, this *Apelles* was by a tempeſt at ſea caſt upon t Ægypt, and forced to land at Alexandria: where, other painters that wer practiſed with a jugler or jeaſter of the kings, and ſuborned him in the ki *les* to take his ſupper with the king. To the court came *Apelles* accordi in the preſence. *Ptolomæ* having eſpied him, with a ſterne and angri him what he made there, and who had ſent for him? and with that tours who ordinarily had the inviting of gueſts to the kings table, of all them had bidden him: whereat *Apelles*, not knowing t brought him thither, and beeing thus put to his ſhifts, caught hearth there by, and began therewith to delineat and draw upon couſiner beforeſaid. Hee had no ſooner pourfiled a little about ly tooke knowledge thereby of the partie that had played this p this diſpleaſure. This *Apelles* drew the face of king *Antiochus* withall: for to hide which deformitie and imperfection, hee d ſage a little away, and ſo he ſhewed but the one ſide of his fac wanting in the picture, might be imputed rather to the pain traied. And in truth, from him came this invention firſt to c the viſage, and to make one halfe face onely, when it might

* *i.* Ortam maci, *i.* riſing out of the ſea.

pleased the painter. Among other principall peeces of worke, some pictures there be of his ma- G
king, resembling men and women lying at the point of death, and even readie to gaspe and yeeld up the ghost. But of all the pictures and pourtraitures that he made; to say precisely which be the most excellent, it were a very hard matter. As for the painted table of *Venus*, arising out of the sea (which is commonly knowne by the name of *Anadyomene*) *Augustus Cæsar*, late Emperour of famous memorie, dedicated it in the temple of *Iulius Cæsar*, his father; which he enriched with an Epigram of certaine Greeke verses, in commendation as well of the picture, as the painter. And albeit the artificiall contriving of the said verses went beyond the worke, which they seemed to praise, yet they beautified and set out the table not a little. The nether part of this picture had caught some hurt by a mischance: but there never could bee found that painter yet, who would take in hand to repaire the same and make it up againe as it was at first: so as, this wrong & harm H
done unto the worke, and continuing still upon the same, turned to the glorie of the workeman. This table remained a long time to be seene, untill in the end for age it was worm-eaten and rotten: in such sort, as *Nero* beeing Emperour was faine to set another in the place, wrought by the hand of *Dorotheus*. But to come againe unto *Apelles*: he had begun another picture of *Venus Anadyomene*, for the inhabitants of the Iland Cos for Lango, which he minded should have surpassed the former: howbeit, before hee could finish it, surprised he was with death, which seemed to envie so perfect workmanship: and never was that painter knowne to this day, who would turne his hand to that piece of worke, and seeme to goe forward where *Apelles* left, or to follow on in those traicts and lineaments, which he had pourfiled and begun. One picture he drew of * king *Alexander* the Great, holding a *thunderbolt and lightening in his hand, which cost twentie ta- I
lents of gold, and was hung in the temple of *Diana* at Ephesus. And verely, this devise was so finely contrived, that as *Alexanders* fingers seemed to beare out higher than the rest of the worke, so the lightening appeared to be cleane without the ground of the table, and not once to touch it. [But before I proceed any farther, let the readers take this with them, and alwaies remember, that these rich and costly pictures were wrought with foure colours and no more.] And for the workmanship of this picture, the price thereof was paied him in good gold coine by weight and measure, and never told and counted by tale. Of his handyworke was the picture of a Megabyzus or guelded priest of *Diana* in Ephesus, sacrificing in his pontificall habits and vestiments accordingly. Also the counterfeit of prince *Clytus*, armed at all peeces save his head, mounted on horsebacke and hasting to a battell, calling unto his squire or henxman for his helmet, who was K
urtraied also reaching it unto him. To reckon how many pictures *Apelles* made of king *Alex-*
er and his father *Philip*, were but losse of time, and a needlesse discourse: But I cannot omit the
ed table, containing the pourtrait of *Abron* that wanton and effeminat person; which peece
ke the Samians so highly extoll and magnifie: ne yet another picture of *Menander* the
Caria, that he made for the Rhodians, and which they so much admire. Neither must I
e counterfeit of *Ancæus*: of *Gorgosthenes* the Tragœdian, which he made at Alexandria:
was at Rome, one table containing *Castor* and *Pollux*, with the image of *Victorie*, and
ikewise, another representing the counterfeit of Warre in person, bound
the backe, and *Alexander* the king mounted in a charriot triumphant:
ius late Emperour of immortall memorie, had dedicated modestly, L
used them to be hung up in the most conspicuous places of his Fo-
when *Claudius Cæsar* came to weare the diademe, hee thought it
, to scrape out the face of *Alexander*, as well in the one as in the
lively image of the said *Augustus* to be seene. It is thought like-
rcules, painted in a table, standing now in the temple of *Antonia*,
ce of worke no doubt, for notwithstanding that the backe part
on it, yet it sheweth the entier visage, which is an exceeding hard
is *Hercules*, would thinke that the picture it selfe turned the face
ned by the rest of the worke to hide from the eye. Of his pain-
night all naked, in which picture he seemed to challenge Na- M
part so well, as shee her selfe could not have framed the same
horse of his painting: which hee pourtraied, to set against o-
men, with whom he was entred into contention for the victo-
the sentence of men to the judgement of fourfooted beasts,

even

*Of this picture *Apelles* was wont to say, That there were two *Alexanders*: the one begotten by *Philip*, who was ἀνίκητος: & the other painted by *Apelles*, & he was ἀμίμητος, inimitable.

* The manner was to expresse lightening, by three shafts

A even living horses indeed: for perceiving that his concurrents were in favor too mightie for him, and that they were like to carrie away the prize by corrupting the judges and umpiers, he caused living horses to be brought into the place; and when he had presented before them the pictures of his concurrents horses one by one, they seemed not to joy nor make toward them: but no sooner had he shewed * that of his owne pourtraying, but they fell all to neigh, as taking it for one of their fellows; which experiment served ever after for a rule, to know indeed a good peece of workmanship in that kind. Moreover, hee made a picture representing *Neoptolemus* the sonne of *Achilles*, in habit of a man of armes, sitting on horsebacke and riding against the Persians: likewise another, resembling *Archelaus* with his wife and little daughter: also king *Antigonus* armed before with a cuirace, and marching on foot with his horse of service led by him. Howbeit

* *Valer. Max.* reporteth, that he painted a mare.

B those painters that are counted more skilfull and cunning than others, preferre before all other peeces of his workemanship, one picture of the same king sitting upon his horse; and another which doth represent the goddesse *Diana*, among a consort or companie of other virgins at sacrifice; whome he depainted so artificially in this table, that he seemeth to have surmounted *Homer* the Poët, who eftsoons in his poëms describeth the said maiden *Diana* with her traine of young damosels. What would you have more? hee would seeme to pourtray those things which indeed cannot bee pourtraied, cracks of thunder, leames or flashes of lightning, and thunderbolts; all which pictures goe under the name of *Brontes*, *Astrape*, and *Ceraunobolos*: his inventions served as precedents and patterns for others in that art to follow. One secret hee had himselfe, which no man was ever able to attaine and reach unto, and that was a certaine blacke vernish which he used to lay upon his painted tables when he had finished them; which was so finely

C tempered, and withall driven upon the worke so thin, that by the repercussion thereof it gave an excellent glosse and pleasant lustre to the colours: the same also preserved the picture from dust and filthinesse: and yet a man could not perceive any such thing at all, unlesse hee held the table close at hand, and looked verie neare. And great reason hee had besides to use this vernish, namely, least the brightnesse of the colours without it, might offend and dazle the eyes, which now beheld them as it were afarre off through a glasse-stone; and withall, the same gave a secret deeping and sadnesse to those colours which were too gay and gallant. And thus much may suffice for *Apelles*.

In his time lived *Aristides* the Thebane, a famous painter. This *Aristides* was the first that

D would seeme to paint the conceptions of the mind, and to expresse all the inward dispositions and actions thereof, which the Greeks call Ethe: yea the verie perturbations and passions of the soule he represented in picture: howbeit, his colours were unpleasant and somwhat too harsh. He represented in a table the winning of a towne by force, wherein was pourtraied most lively a little infant winding it selfe and making prettie means to creepe unto the mothers pap, who lay a dying upon a mortall wound received in her breast: but it passed, how naturally the poore womans affection was expressed in this picture; for a man might perceive in her, verie sensibly, a certaine sympathie and tender affection yet, unto her babe, albeit shee were now in her deadly pangs and going out of the world, fearing even then, least the child should meet with no milke when shee was dead, but in stead of sucking it fall to licke her bloud, and doe it selfe hurt and injurie: This

E painted table K. *Alexander* the Great translated from Thebes to Pella, the cittie where himselfe was borne. The same *Aristides* painted the counterfeit of a battaile betweene the Greeks and the Persians: in which table, hee compriſed an hundred fighting men: his bargaine was to have of *Mnason* the tyrant or K. of Elate, for everie personage that he made * ten pounds of silver. Hee pourtraied the running in a race of charriots drawne with foure steeds, so lively, that a man would have thought he saw the wheels turning about. And as for an humble suter or suppliant, hee depainted him so naturally, making his petition and following it with such earnestnesse, that he seemed in maner to crie with an audible voice from the verie picture. He counterfeited in a painted table, hunters with their venison that they had taken: *Leontion* also the painter: and a woman under the name of *Anapauomene*, dying for kind heart and the love of her brother: likewise prince

* *Mnas.*

F *Bacchus*, and ladie *Ariadne* his wife, which be pictures much looked upon at Rome in these daies within the temple of *Ceres*: a plaier besides in a tragœdie, accompanied with a boy (and these are to be seen in the chappell of *Apollo*) howbeit, this table hath lost all the beautie which it first had, through the follie of an unskilfull painter, unto whom it was put forth to be scoured and refreshed, by *M. Iunius* the Pretor, against the solemnitie of the Apollinar games. Moreover, there was

to beſeen in the chappell of *Faith* within the Capitoll, the picture of an old man with an harpe, G
teaching a boy to play; which was of *Ariſtides* his making: but there is a man lying ſicke in his
bed, of his painting, that cannot be praiſed ſufficiently. And verely to conclude with this owne
word, ſo accompliſhed he was in this art, that K. *Attalus* (by report) gave unto him for one table
with the picture, one hundred talents of ſilver.

About the ſame time, there flouriſhed (as I have ſaid before) *Protogenes*: borne hee was at
Caunos a citie in Cilicia, and ſubject to the Rhodians: hee was ſo exceeding poore at the begin-
ning, and withall ſo ſtudious, intentive, and curious in his worke without all end, that fewer pi-
ctures by that means came out of his hands, and himſelfe never riſe to any great wealth. Who it
was that taught him his art, it is not known for certain: but ſome ſay that he painted ſhips untill
he was fiftie yeers of age: which they collect by this argument, That when at Athens in the moſt H
conſpicuous and frequented place of the cittie, he was to adorne with pictures the porch before
* Names of gallies. the temple of *Minerva*; wherein he depainted that famous * Paralus and * Hemionis, which
ſome call Nauſicaa, he deviſed certaine borders without: wherein hee painted among thoſe by-
works (which painters call Parerga) certaine ſmall gallies and little long barkes, to ſhew thereby
the ſmall beginnings of his art, and to what heigth of perfection hee was come to in the end,
when his workmanſhip was thought worthie to be ſeene in the moſt eminent place of that citie.
* A worthie knight, ſonne of *Ochimus*. But of all the painted tables that ever hee wrought, that of * *Ialyſus* is accounted the principall,
which is now dedicated at Rome within the temple of *Peace*: whiles he was in painting this *Ialy-*
ſus, it is ſaid, that he lived onely upon ſteeped lupines, which might ſerve him in ſtead of meat
and drinke both, to ſatisfie his hunger and quench his thirſt: and this hee did, for feare leaſt too I
much ſweetneſſe of other viands ſhould cauſe him to feed over-liberally, & ſo dull his ſpirit and
ſenſes. And to the end that this picture ſhould bee leſſe ſubject to outward injuries, and laſt the
longer, he charged it with foure grounds of colours, which he laid one upon another; that ever
as the upper coat went, that underneath might ſucceed in the place and ſhew freſh againe. In
this table, the pourtraiture of a dog is admirable and miraculous; for not onely art, but fortune
alſo met togither in the painting thereof: for when hee had done the dog in all parts to the con-
tentment of his owne mind (and that ywis was a verie hard and rare matter with him) hee could
not ſatisfie and pleaſe himſelfe in expreſſing the froth which fell from his mouth as hee panted
and blowed almoſt windleſſe with running; diſpleaſed he was with the very art it ſelfe: and albeit
he thought that hee had been long enough alreadie about the ſaid froth, and ſpent therein but K
too much art and curioſitie, yet ſomewhat (he wiſt not what) was to be diminiſhed or altered ther-
in: the more workemanſhip and skill that went thereto, the farther off it was from the truth in-
deed and the nature of froth, (the onely marke that he ſhot at:) for when hee had done all that
he could, it ſeemed ſtill but painted froth, and not that which came out of the doggs mouth;
whereas it ſhould have been the verie ſame and no other, which had ben there before. Hereat he
was troubled and vexed in his mind, as one who would not have any thing ſeene in a picture of
his, that might be ſaid like, but the very ſame indeed. Many a time he had changed his penſill and
colours; as often, he had wiped out that which was done, and all to ſee if he could hit upon it: but
it would not be, for yet it was not to his fanſie. At the laſt, falling cleane out with his own work-
manſhip, becauſe the art might be perceived in it, in a pelting chafe he flings me the ſpunge-full L
of colors that he had wiped out, full againſt that unhappie place of the table which had put him
to all this trouble: But ſee what came of it! The ſpunge left the colours behind, in better order
than hee could have laid them, and in truth, as well as his heart could wiſh. Thus was the froth
made to his full mind, and naturally indeed by meere chaunce, which all the wit and cunning in
his head could not reach unto. [After whoſe example, *Nealces* another painter did the like, and
ſped as well, in making the froth falling naturally from a horſes mouth; namely, by throwing his
ſpunge againſt the table before him, at what time as he painted a horſe-rider cheering and chir-
king up his horſe, yet reining him hard as he champed upon his bit.] Thus (I ſay) Fortune taught
Protogenes to finiſh his dog. This picture of *Ialyſus* and his dog, was of ſuch name and ſo highly
eſteemed, that K. *Demetrius* when he might have forced the cittie of Rhodes, on that ſide onely M
where *Protogenes* dwelt, forbare to ſet it on fire, becauſe he would not burne it among other pain-
ted tables: and thus for to ſpare a picture, he loſt the opportunitie of winning a towne. During
this ſtreight ſiege and hot aſſault of Rhodes, it chaunced that *Protogenes* himſelfe was at worke in
a little garden that hee had by the townes ſide, even as a man would ſay within the compaſſe of

Demetrius

A *Demetrius* his campe. And for all the furie of warre and the daily skirmishes within his sight and hearing, yet hee went on still with his workes that hee had in hand, and never discontinued one houre. But being sent for by the king, and demaunded, How he durst so confidently abide without the walls of the citie in that daungerous time? he answered, That he knew full well that *Demetrius* warred against the Rhodians, and had no quarrell to good arts and sciences. The king then (glad in his heart that it lay now in his hand to save those things, which hee had spared before, and whereof he had so good respect) bestowed a verie strong guard about *Protogenes* for his better safetie and securitie: and as great an enemie as he was to the Rhodians, yet he used otherwhiles to visit *Protogenes* of his owne accord in proper person, because hee would not eftsoons call him out of his shop from worke: and setting aside the maine point and occasion of lying
B before Rhodes, which was the winning thereof, the thing that hee so much desired; even amid the assaults, skirmishes, and battailes, hee would find times to come unto *Protogenes*, and tooke great pleasure to see his worke. By occasion of this siege and hostilitie, arose this tale moreover of one table of his making, That all the whiles he painted it, the dagger (forsooth) was set to his heart, and a sword readie to cut his throat: and it was the picture of a Satyre playing upon a paire of bagpipes, which he called * *Anapauomenos:* by which name, as well as by the thing it selfe, he would seeme to signifie, that he tooke but little thought and care during those daungerous troubles. Moreover, he made the picture of ladie *Cydippe*, and of * *Tlepolemus:* he painted also *Philiscus* a writer of Tragœdies, sitting close at his studie meditating and musing. Also, there be of his making, a wrestler or champion, *Antigonus* the king, and the * mother of *Aristotle* the Phi-
C losopher, who also was in hand with *Protogenes*, persuading him to busie himselfe in painting all the noble acts, victories, and whole life of king *Alexander* the Great, for everlasting memoriall and perpetuitie: but the vehement affection and inclination of his mind stood another way, and a certaine itching desire to search into the secrets of the art, tickled him and drew him rather to these kinds of curious works whereof I have alreadie spoken. Yet in the latter end of his daies, he painted king *Alexander* himselfe, and god *Pan*. Over and besides this flat painting, he gave himselfe greatly to the practise of founderie, and to cast certaine images in brasse, according as I have alreadie said.

* One at rest, or reposing himselfe.

* Some read, *Triptolemus.*

* *Phæstias.*

At the verie same time lived *Asclepiodorus*, whome for his singular skill in observing symetries and just proportions, *Apelles* himselfe was woont to admire. This painter pourtraied for *Mnason*
D the foresaid king of the Elateans, the twelve principall gods, and received for everie one of them three huudred pound of silver. The said *Mnason* gave unto *Theomnastus* for painting certaine Princes or Worthies, one hundred pounds apeece.

In this ranke is to bee raunged *Nicomachus*, sonne and apprentice both unto *Aristodemus*. This *Nicomachus* pourtraied the ravishing of *Proserpina* by *Dis* or *Pluto*: which picture standeth in a table within the chappell of *Minerva* in the Capitoll, above the little cell or shrine of *Iuventus*. In the same Capitoll, another table there is likewise of his making, which *Plancus* (lord Generall of an armie for the time beeing) had there dedicated and set up: the same doth represent *Victorie* catching up a triumphant charriot drawn with foure horses aloft into heaven. Hee was the first that pourtraied prince *Vlixes* in a picture, with a * cap upon his head. Hee pain-
E ted also *Apollo* and *Diana: Cybele* likewise the mother of the gods, sitting upon a lyon: of his workemanship is the table, representing the religious priestresses of *Bartus* in their habit, together with the wanton Satyres creeping and making toward them. Semblably, the monstrous meermaid *Scylla*, which at this day is to bee seene at Rome within the temple of *Peace*. A readie workeman hee was, and you shall not heare of a painter that had a quicker hand than hee, at his worke: for proofe whereof, this voice goeth of him, That having undertaken for a certaine sum of money unto *Aristratus* the tyrant of Sicyone, to paint a monument or tombe which he caused to be made for *Telestes* the Poët, and to finish it by such a day appointed and set downe in the covenants of the bargaine, hee made no great haste to goe about it, but came some few daies before the expiation of the prescript terme, for to begin the same worke: whereat the tyrant was
F wroth, and menaced to punish him for example: howbeit, hee quit himselfe so well, and followed his worke with such woonderfull celeritie, that in few daies space hee brought it to an end: and yet the art and workemanship thereof was admirable. Vnder him were brought up as apprentices, his brother *Aristides*, his owne sonne *Aristocles*, and *Philoxenus* the Eretrian.

* In token of nobilitie, as *Pierius* noteth in his Hieroglyphicks, *lib.* 11.

This *Philoxenus* made one painted table for *Cassander* the king, containing the battell between

Alexander the Great and K. *Darius*, which for exquisit art commeth not behind any other what- G
soever. One picture there is of his doing, wherein he would seeme to depaint Lascivious wantonnesse, which he pourtraied by three drunken Sylenes making merrie and banketting togither. He gave himselfe also to the speedie workemanship of his master before him, and for that purpose invented other compendious means of greater brevitie to make riddance and quicke dispatch with his pencill.

With these may be sorted *Nicophanes* also, a proper, feat, and fine workeman, whose manner was to take out old pictures and paint them new againe, thereby as it were to immortalize the memorie of things: a running hand he had of his owne, and besides was by nature hastie and furious: howbeit, for skill and cunning there were but few comparable unto him. In all his workes he aimed at loftinesse and gravitie: so that a man may attribute the stately port that is in this art, H
unto him and no other.

As touching *Perseus* (apprentice to *Apelles*, & wrote a book unto him of the very Art) he came far short both of his master & also of *Zeuxis*. As for *Aristides* the Theban, who also lived in this age, he brought up under him his two sonnes, *Niceros* and *Aristippus*. This *Aristippus* pourtraied a Satyre crowned with a chaplet, and carying a goblet or drinking cup: he taught *Antonides* and *Euphranor* his cunning; of whome I will write anon: for meet it is to annex unto the rest, such as have been famous with the pencill in smaller works and lesser pictures: among whome I may reckon *Pyreicus*, who for art and skill had not many that went before him: and verely of this man, I wot not well, whether hee debased himselfe and bare a low saile, of purpose or no? for surely his mind was wholly set upon painting of simple and base things: howbeit, in that humble and lowly I
carriage of himselfe, hee attained to a name of glorie in the highest degree: his delight was to paint shops, of barbers, shomakers, coblers, taylers, and semsters: hee had a good hand in pourtraying of poore asses, with the victuals that they bring to market, and such homely stuffe: wherby hee gat himselfe a by-name, and was called *Rhyparographus*. Howbeit, such rude and simple toies as these were so artificially wrought, that they pleased & contented the beholders, no thing so much. Many chapmen he had for these trifling peeces, and a greater price they yeelded unto him, than the fairest and largest tables of many others. Whereas contrariwise, *Serapion* used to make such great and goodly pictures, that (as *M. Varro* writeth) they were able to take up and fill all the stalls, bulks, and shops, jutting forth into the street under the old market-place Rostra. This *Serapion* had an excellent grace in pourtraying tents, booths, stages, and theatres; but to paint a K
man or a woman, he knew not which way to begin. On the other side, *Dionysius* was good at nothing else, and therefore hee was commonly called *Anthropographus*. Moreover, *Callicles* also occupied himselfe in small works: and *Calaces* set his mind especially upon little tables & pictures which were to set out comœdies and enterludes: but *Antiphilus* practised both the one and the other; for hee pictured the noble ladie *Hesione*, K. *Alexander* the Great, and *Philip* the king his father, with the goddesse *Minerva*: which tables hang in the Philosophers schoole or walking-place within the stately galleries of *Octavia*, where the learned clerks and gentlemen favourers of learning, were woont to meet and converse. Within the galleries also of *Philippus* there are to be seen, the picture of prince *Bacchus*, the pourtrait of *Alexander* in his childhood, and of *Hyppolitus* the young gentleman, affrighted and astonied at the sight of a monstrous bull let loose L
and readie to encounter him. Likewise in the gallerie of *Pompey*, the counterfeits of *Cadmus* and *Europa*; all, pictures of *Antiphilus* his making. Of his handyworke, there is a foole, with his bell, cockscombe, bable, and in other ridiculous habit, going under the name of *Gryllus*, devised for the nones to make sport and pastime: wherupon all such foolish pictures be called Grylly. Himselfe was borne in Ægypt, howbeit hee learned all his cunning of *Ctesidemus*. In this bedroll of painters, I should not doe well to passe over in silence, the workeman that painted the temple of *Iuno* at Ardea, especially seeing that he was enfranchised free burgeois of that cittie, and honoured besides with an Epigram or Tetrastichon, remaining yet to be read in the mids of his pictures in these foure Hexameter verses following:

M

Dignis digna loca picturis concolebravit,
Reginæ Iunonis supremi conjugis templum
Marcus Ludius Elotas Ætolia oriundus;
Quem nunc, & post semper ob artem hanc Ardea laudat.

This

A This ſtately Church of *Iuno* queene, with pictures richly dight,
Whome wife to mightie *Iupiter*, and ſiſter, men doe call;
Commends the hand of *Marke Ludie*, *Elotas* alſo hight,
Ætolian borne: whome Ardea doth praiſe, and ever ſhall.

Theſe verſes are written in antique Latine letters. By occaſion of whoſe name, I muſt not defraud another *Ludius* of his due praiſe and commendation, who lived in the daies of *Auguſtus Cæſar* Emperour of happie memorie: for this *Ludius* was hee who firſt deviſed to beautifie the walls of an houſe with the pleaſanteſt painting that is in all varietie; to wit, with the reſemblance of manours, farms, and houſes of pleaſure in the countrey, havens, vinets, floure-worke in knots, groves, woods, forreſts, hills, fiſhpools, conduits, and drains, rivers, riverets, with their banks, and
B whatſoever a man would wiſh for to ſee: wherein alſo hee would repreſent ſundrie other ſhews of people, ſome walking and going too and fro on foot; others, ſailing and rowing up and downe the ſtream upon the water; or els riding by land to their farms, either mounted upon their mules and aſſes, or els in waggons and coaches: there a man ſhould ſee folke, in this place fiſhing and angling, in that place hawking and fouling: ſome hunting here, the hare, the fox, or deere both red and fallow; others, buſie there, in harveſt or vintage. In this manner of painting a man ſhould behold of his workemanſhip, faire houſes ſtanding among marſhes, unto which all the wayes that lead, be tickliſh and full of bogs; where you ſhould ſee the paths ſo ſlipperie, that women as they goe are afraid to ſet one foot afore another; ſome at everie ſtep readie to ſlide, others bending forward with their heads, as though they carried ſome burdens upon their neck and ſhoul-
C ders, and all for feare leaſt (their feet failing under them) they ſhould catch a fall: and a thouſand more deviſes and prettie conceits as theſe, full of pleaſure and delight. The ſame *Ludius* deviſed walls without-dores & abroad in the open aire, to paint cities ſtanding by the ſea ſide. All which kind of painting pleaſeth the eye exceeding well, and is beſides of little or no coſt. Howbeit, neither he nor any artificers in this kind (howſoever otherwiſe reſpected) grew ever to be famous and of great name; that felicitie attained they only unto, who uſed to paint in tables: and therefore in this regard, venerable antiquitie we have in greater admiration: for painters in old time loved not to garniſh walls for to pleaſure the maſter only of the houſe, ne yet to bedeck houſes in that manner, which cannot ſtir out of the place nor ſhift and ſave themſelves when fire commeth; as painted tables may, that are to be remooved with eaſe. *Protogenes*, as excellent a painter as hee was,
D contented himſelfe to live within a little garden in a ſmall cottage, and I warrant you no part thereof was painted. *Apelles* himſelfe might well have the walls of his houſe rough-caſt or finely plaſtered, but never a patch therof had any painting. They tooke no pleaſure, nay they had no luſt at all to paint upon the whole walls, and to work upon them from one end to another: all their skill and cunning attended upon the publick ſervice of ſtates and cities: and a painter was not for this or that place only, but emploied for the good & benefit indifferently of all countries & nations.

But to returne again to our particular painters: there flouriſhed at Rome a little before *Auguſtus Cæſars* daies, one *Arellius*, a renowmed painter, but that he had one notable foule fault which marred all and diſcredited his art; given he was exceedingly to wenching, and ſure hee would be to have one woman or other all times in chace: which was the reaſon that hee loved a-life to bee
E painting of goddeſſes, and thoſe were ever drawne by the patterne of his ſweet-hearts whom he courted: A man might know by his pictures how many queanes he kept, and which were the miſtreſſes or goddeſſes rather, whom hee ſerved. Of late daies we had among us here at Rome, one *Amulius* a painter: he caried with him in his countenance and habit, gravitie and ſeveritie; howbeit, he loved to make gay & gallant pictures, neither ſcorned he to paint the moſt trifling toies and meaneſt things that were: The picture of *Minerva* was of his making, which ſeemeth to have her eye full directly upon you, looke which way ſoever you will upon her. Hee wrought but ſome few hours of the day, and then would he ſeeme verie grave & ancient; for you ſhould never find him out of his gowne and long robe, but verie formall, though he were cloſe ſet at worke & even locked as it were to his frame. The golden houſe or pallace of *Nero* caught up all the workes that
F he could make, where they remained as it were in priſon & never came abroad: which is the reaſon that none of his pictures els be extant. After him, ſucceeded *Cornelius Pinus*, & *Actius Priſcus*, two painters of good reputation, who painted the temples of *Honour* and *Vertue* for *Veſpaſianus Auguſtus* the Emperour, when he cauſed them to be reedified: but of the twaine, *Priſcus* in his workmanſhip came nearer to the painters in auncient time.

G

Chap. xi.

The manner how to make birds silent, and to leave their chattering and singing. Who first devised with fire and pencill to enamell and paint the arched roufes and embowed seelings of houses. The admirable prices of pictures, inserted here and there among other matters.

SInce I have proceeded so farre in the discourse of Painters and their Art, I must not forget to set downe a pretie jest, which hath been reported by many as touching *Lepidus*: It happened during the time of his Triumvirat, that in a certaine place where he was, the magistrats attended him to his lodging, environed as it were with woods on everie side: the next morrow *Lepidus* took them up for it, and in bitter tearms and minatorie words chid them, for that they had laid him where hee could not sleepe a wincke all night long, for the noise and singing that the birds made about him. They being thus checked and rebuked, devised against the next night, to paint in a peece of parchment of exceeding length, a long dragon or serpent, wherewith they compassed the place where *Lepidus* should take his repose: the sight of which serpent thus painted, so terrified the birds, that they had no mind to sing, but were altogither silent: by which experiment at that time, it was knowne afterwards that birds by this means might be stilled.

H

* *Encaustice.*

As touching the feat of setting colours with wax, and * enamelling with fire, who first began and devised the same, it is not known. Some are of opinion, that the invention therof came from *Aristides*: and that *Praxiteles* practised the same, and brought the art of it to an absolute perfection. But surely there were pictures wrought by fire a good while before *Aristides* daies; and namely, by *Polygnotus*, *Nicanor*, and *Arcesilaus* of Paros. *Lysippus* also in his painted tables that he made at Ægina, used to entitle them with this inscription, Λύσιππος ἐνέκαυσεν, *i. Lysippus* painted this with fire: which verely he would never have done, if the art of painting so with fire (called Encaustice) had not been before devised. Moreover, *Pamphilus*, master to *Apelles*, is reported not onely to have himselfe practised this painting with vernish, and to enamell by the means of fire, but also to have taught it unto *Pausias* the Sicyonian, who was the first that excelled in this kind, and caried away the name from all others in his time. This *Pausias* was the sonne of *Brietes*, & apprentice also to his father at the beginning: he used also the plaine pencill, wherwith he wrought upon the walls at Thespiæ; which having been in times past painted by *Polygnotus*, were now to be refreshed and painted new againe by his hand: howbeit, in comparison of the former worke, he was thought to come a great way short of *Polygnotus*: and the reason was, because he dealt in that kind of worke which was not indeed his proper profession. He it was that brought up first the devise of painting vaulted roufs; for never was it the manner to adorne and garnish embowed seeling over head with colours, before his time. His delight naturally was to be painting of little tables, and therein he loved to pourtray little boies. Other painters his concurrents, and no well-willers of his, gave it out, That he made choice of this kind of worke, because such painting went but slowly away, and required no quicke and nimble hand. Whereupon *Pausias*, to disproove his adversaries, and withall to get himselfe a name as well for celeritie and expedition, as for his art and skill otherwise in these small peeces, began and finished in a table the picture of a boy, within one day; and thereupon it was called *Hemereſios*. In his youthfull daies he fell in fancie with a woman in the same towne where he dwelt, named *Glycera*: a fine wit shee had of her owne; and especially in making chaplets and guirlands of flours, shee was full of invention. *Pausias* by his acquaintance with her, and striving to imitat with his pencill her handy-worke, and to expresse that varietie of flours which she gathered and couched togither full artificially in her coronets, enriched his owne pictures also with a number of colours, and brought the art to wonderfull perfection in that point. In the end, he painted *Glycera* also his love sitting, with a chaplet of floures in her hand: and certes, this is the most excellent peece of worke that ever went out of his shop: this table with the picture was thereupon called by some, Stephanoploros, *i.* [A woman] plaiting and twisting a guirland: by others, Stephanopolis, *i.* Selling guirlands: for that this *Glycera* got a poore living by making chaplets, and had no other good means to maintaine her selfe. The counterfeit taken from this table and made by it (which kind of patterne the Greeks call Apographon) *L. Lucullus* bought of *Dionysius* a painter of Athens, and it cost him * two talents of silver. Furthermore, this *Pausias* made faire and great pictures also; and

I

K

L

M

* 781 *lib.* 5 *sh.*

namely,

A namely,one of his making,which doth represent a solemne sacrifice of oxen,is to be seen at this day within the stately galleries of *Pompeius:* and verely, this manner of painting the solemnitie of a sacrifice,hee first invented: but no man ever after could attaine to his dexteritie in that kind: and notwithstanding many gave the attempt,and seemed to imitate him,yet they came all short of him. Above all,he had a singular gift to work by perspective: for when he was minded to paint a bœufe or oxe,to shew the full length,he would not portray him sidelong or a flanke,but afront: by which meanes the beast is best represented,not onely how long,but also how large and big he is every way. Againe, whereas all other painters,whensoever they would raise their worke, and make any thing seeme eminent and high,use to colour the same white and bright,and the better to make them perspective,doe shaddow or deepe the same with blacke; this man in lieu thereof,
B would paint the oxe all of a blacke colour,and cause the bodie as it were of the shaddow to arise out of it selfe. And verely,so excellent he was in this perspective,that a man would say, his even, plaine, and flat picture, were embossed and raised worke, yea and imagine where fractures were, that all was sound and entire. This man lived also at Sicyone: and verely,for a long time this citie was reputed the native countrey that bred painters, and the onely place stored with excellent pictures. But during that time wherein *Scaurus* was Ædile at Rome,all the rich tables which were in the publicke places of that cittie, whether in the market steads,temples, or common hals, were seized upon and brought to Rome,for to satisfie great summes of mony wherein the Sicyonians stood endebted.

After *Pausias*,there arose one *Euphranor* the Isthmian,who flourished about the hundred and
C fourth Olympias,far surpassing all other painters of his time. This *Euphranor* is he whom I have named among the famous imageurs and founders. Of his workemanship there bee colosses of brasse,statues of marble stone,yea,and faire drinking cups chased and engraven. Of an excellent capacitie he was,and apt to learne any thing,studious withall,and painefull above all others: and whatsoever he gave his mind unto,therein he excelled: and in one word,a generall man he was, like himselfe still,that is to say,his craftsmaister in all,and as good in one thing as another. This is he who seemeth to have expressed first the port and majestie that is in princes and great states, and to have observed symmetrie and proportion: and yet he was not without his imperfection, for commonly,as he made the bulke of the bodie too slender,so the joints and heads were somewhat with the biggest: howbeit,he wrote bookes as touching symmetrie and proportion, as also
D of colours. Among other workes of his, there are reckoned these, to wit, the pourtraiture of a battaile or skirmish of horsemen,the twelve cheefe gods and goddesses, also the lively picture of *Theseus*,of whom he was wont to say, That the *Theseus* of *Parasius* his painting was fed with roses, but this *Theseus* of his with good flesh. There be excellent tables of his making at Ephesus, to wit, *Vlyxes* faining himselfe mad, and in that fit coupling an oxe and a horse in one and the same yoke: also divers personages in their clokes and mantles,after the Greekish fashion, musing, and in their deepe studie: likewise,a captaine,putting up his sword into his scabbard.

At the same time lived *Cydias*, hee who in a table represented the * Argonautes, for which *Hortensius* the Oratour, was content to pay 144000 sesterces. This picture hee shrined in an Oratorie or Chappell, built of purpose for it, in a house of pleasure that he had at Thusculum.

* i. Divers valiant knights, who accompanied prince *Iason* in his voiage to Colchos for the golden fleece.

E As for *Antidotus*,apprentice he was unto *Euphranor:* of his handyworke there is a picture at Athens,resembling one with a shield readie to enter into combat and fight, also a wrestler, and a player upon the fife or haut-bois(which is a peece of worke highly commended,and few comparable unto it)more curious and precise he was in the secrets of the art,than observant of symmetrie and proportion; beeing otherwise given to use sad and duskish colours. The greatest name that he had,was for bringing up *Nicias* the Athenian,who of all others painted women most excellently. For lights and shaddowes in perspective,he was exquisit: also a passing great care and regard he had so to raise his worke,as that it seemed to bee embossed and higher than the bourd of his table: The pictures of *Nemea*,which out of Asia was transported to Rome by *Syllanus*, and hung up in the Senate-house as I have shewed heretofore; of prince *Bacchus* within the temple
F of *Concord*; of *Hyacinthus*, which *Augustus Cæsar* upon a speciall liking to it brought with him to Rome, after he had forced and sacked Alexandria, in which regard, *Tiberius Cæsar* his successour, (seeing what affection *Augustus Cæsar* had to it in his life time) dedicated it in the temple of the said *Augustus*; and lastly, of the goddesse *Diana*; were all proofes of his skill and workemanship. Moreover,at Ephesus,the sepulchre of a *Megabyzus*,one of the priests of the order

der of *Diana* of Epheſus, was of his painting: like as at Athens, the Necromancie of the Poët *Homer*. This picture *Nicias* held at ſo high a price, that he would not let it goe unto K. *Attalus* for 60 talents, but choſe rather to beſtow it freely upon his native countrey, being otherwiſe a man for his owne privat eſtate very wealthie. Over and above theſe before rehearſed, he made others of a larger ſize, among which are reckoned *Calypſo*, *Iö*, and the lady *Andromeda*. The excellent picture alſo of king *Alexander*, which is in the gallerie of *Pompeius*, together with *Calypſo* painted ſitting, came out of his ſhop. The perfect pourtraying of foure-footed beaſts, is aſcribed unto him; and in truth, a ſingular grace he had and felicitie in painting dogs. This is that *Nicias*, of whom *Praxiteles* gave ſo good teſtimonie: for being asked the queſtion upon a time, What peeces hee eſteemed beſt of all thoſe which himſelfe had cut in marble? he anſwered, Even thoſe, wherein *Nicias* hath had a hand: ſo much did he attribute unto his *verniſh and poliſhing. Another *Nicias* there was, who lived in the 112 Olympias: but whether this man were hee or no, it is not for certaine knowne: howbeit, ſome there be that would have him to bee the ſame. Certes, *Atheman* of Marona, was taken for as good a workeman every way as *Nicias*, and in ſome reſpects better. He learned the art of *Glaucion* the Corinthian: In choiſe of his colours, he ſtood not ſo much upon gallantneſſe, but uſed thoſe that were with the ſaddeſt: howbeit, thoſe darke and ſhaddowed works of his, ſhewed more pleaſant & delectable than his maiſters: whereby appeared his profound knowledge and deepe skill, in the very laying and couching of his colours. The picture of *Philarchus* hee drew, which is in the temple of *Ceres Eleuſine*: the frequent aſſemblie alſo of the dames of Athens, which they called *Polygynæcon*, was of his pourtraying: likewiſe, he repreſented *Achilles* in his youth, hidden under the habit of a young damoſell, and how the craftie fox *Vlixes* diſcovered and found him out, notwithſtanding he was ſo diſguiſed. But one table above the reſt woon him the greateſt credit, and that was, wherein hee painted a horſekeeper, training and nurturing his palfrey. Certes, but that hee died in his youth, there had not been a painter in all the world comparable unto him.

*Circumlitioni: others read *circumductioni*, *i.* the firſt draught or pourſiling.

As touching *Heraclides* the Macedonian, he alſo may run in the raunge of famous painters. At the beginning, he employed himſelfe in painting ſhips: after that king *Perſeus* was taken priſoner, he left his native countrey and went to Athens, where lived at that time *Metrodorus*, a Painter and Philoſopher both, a man of great name and authoritie as well in the one profeſſion as the other: and therefore, when *L. Paulus*, after the defeature of the ſaid *Perſeus*, ſent unto the Athenians, and requeſted them to ſend unto him an excellent Philoſopher to teach & inſtruct his children, together with a ſingular painter for to ſet out his triumph with curious pictures, the Athenians made choice of *Metrodorus* onely, and commended him alone unto *Lucius Paulus*, for the beſt approoved and moſt conſummat to ſerve his turne and ſatisfie both his deſires: which by good proofe and experience, *Paulus* found true, and gave judgement of him accordingly.

Timomachus the Bizantine flouriſhed in the dayes of *Cæſar* Dictatour, for whom hee painted *Ajax* and *Medea*: which pictures when he bought of him for eightie talents, he cauſed to bee hung up in the temple of *Venus* *Genetrix*. Now when I ſpeake of a talent, you muſt underſtand the Atticke talent, which *M. Varro* dooth value at ſixe thouſand deniers Romane. There goeth as great praiſe and commendation likewiſe of other peeces that paſſed from under the hands of *Timomachus*, to wit, the pictures of *Oreſtes*; of *Iphigenia* in Tauris; and of one *Lecythion*, who taught youths dauncing, vaulting, and other feats of activitie: hee pourtraied alſo in a table, a goodly race, deſcent, and kinred of gentlemen: two perſons beſides in thir clokes or mantles, after the Greekiſh faſhion, readie to make a ſpeech unto the people; the one ſet, the other ſtanding upon the feet: but it ſeemed that art favoured and graced him moſt, in painting *Minervaes* ſhield, where he pourtraied *Gorgon* or *Meduſaes* head moſt lively.

*This Saint *Iulius Cæſar* honoured moſt: for that hee would ſeeme to be deſcended from *Julus* or *Aſcanius*, ſon of *Æneas*, and nephew to *Venus* by *Anchiſes*

Ariſtolaus was the ſonne of *Pauſias*, and under his father he learned the myſterie of painting: who is counted one of the graveſt painters that ever were: Of his workmanſhip are the tables containing the pictures of *Epaminondas*, *Pericles*, *Medea*, *Vertue*, & *Theſeus*: He drew alſo with his penſill in colours, the common people of Athens, and a ſolemne ſacrifice of oxen.

There was alſo one *Mechopanes*, apprentiſe likewiſe unto the ſame *Pauſias*, who is highly commended by ſome for his curious and exquiſit workemanſhip: but ſuch it is, as none but cunning artificers can conceive, for otherwiſe I aſſure you, his colours are unpleaſant, and he loved to lay on too much of one thing, and that was Sil.

As

A As for *Socrates* the painter, his pictures were liked very well of all that saw them, and in truth, they deserved no lesse: for of his doing are these and such like, to wit, *Aesculapius*, with his daughters, *Hygia*, *Aegle*, *Panacea*, and [1] *Iaso*: and an idle lazie lubber, knowne by a devised name *Ocnos*, whom he pourtraied twisting a cord of Spart, and ever as he did it, an asse behind him gnawed it asunder. Thus much may serve, concerning the principall painters that have been known to excell in both kinds, to wit, with the pensill, and with fire: it remaineth now that I should discourse of those who were next unto the principall, and so reputed.

In this second course of Painters I must raunge *Aristoclides*, who beautified with his pictures the temple of *Apollo* in Delphos. As for *Antiphilus*, he is much praised for painting a boy blowing hard at the coales; in which table, it is a pretie sight to see how all the house (which was faire
B ynough besides) shineth by the fire that he maketh, as also what a mouth the boy makes: likewise for the picture of a companie of Spinsters, so lively, that one would imagine he saw every woman making hast to spin off her distaffe, striving avie who shall have done her taske first. He devised also to pourtray *Ptolomæ* hunting, and this they call [2] *Aposcopon*; for which he is much commended: but principally for a brave Satyr of his workemanship, clad in a Panthers skin. *Aristophon* woon much credit by painting *Ancæus* wounded to death by a wild Bore, and his wife *Astypale* standing hard by, who seemeth to lament for his sake, and (as it were) to feele part of his paine: Hee made likewise one faire table, enriched with a number of personages, to wit, king *Priamus*, faire *Helena*, dame *Credulitie*, *Ylixes*, *Deiphobus*, and *Dolori*. *Androbius* got himselfe a great name by a picture, representing one [3] *Scyllis* [a cunning dyver] cutting in twaine the anker cables of the Persian fleet,
C riding at sea. *Artemon* likewise was renowned for the counterfeit of ladie *Danaë*, found floting in the sea by [4] rovers or men of warre, who seemed to wonder at her beautie, and to behold her with much contentment: also for picturing queene *Statonice*: *Hercules* and *Deianira* his wife: But the most excellent peeces of his workmanship, be those which are to be seene in the galleries of *Octavia*, among other of her stately buildings; to wit, *Hercules* ascending up into heaven from the mountaine Oeta within the region of Doris, where he chaunged this mortall life, and by the generall consent of all the gods, was received into their societie: the whole hystorie also of *Laomedon*, as touching his falshood to *Hercules* and *Neptune*. *Alcimachus* the painter was renowned for the picture of hardie *Diox ppus*, who [5] carried away the prise in all feats of activitie, at the solemne games of Olympia, and never sweat nor touched [6] dust for it; which easie victory the Greeks
D call Aconiti. As for *Cænus*, he was excellent at painting Coronets & Guirlands: also at drawing coats of armes in scutcheons, of gentlemen and noble persons, with the stile of their titles & dignities. *Ctesilochus*, an apprentice to *Apelles*, became very famous for one picture above the rest, although it were but a wanton one and offensive to chast eyes; wherein forsooth he depainted *Iupiter*, attired in a caule or coife about his head like a woman, groning and crying out also (as women do in travell of childbirth) among the goddesses for their helping hand, who plaid the midwives about him, untill hee was delivered of god *Bacchus*, and brought to bed. *Cleon* was much spoken of, for the picture which he made of king *Admetus*: *Ctesidamus* for pourtraying the winning of Oechalia by *Hercules*. And for drawing the picture of ladie *Laodamia*, the wife of *Protesilaus*. *Clesides* was notorious for one picture which he made in despight of queene *Stratonice*, wife
E to king *Antiochus*, and to be revenged of her for a disgrace that he had received at her hands: For being in the court, and perceiving that the queene did him no honour at all, nor gave him any countenance, he made no more adoe, but painted her in her colours, tumbling and wallowing a-
2 long full unseemely with an odde base fisherman, whome as the voice went, shee was enamoured upon; and when he had done, set it up in the very haven of Ephesus, recovered a barke presently, and away he went under saile as fast as wind and tide would carie him. When the queene heard of it, she made but a jeast and mocke of it; neither would shee suffer the picture to bee taken away, in regard of the wonderfull workmanship, which expressed both her and him so like and lively. *Craterus* was a Comœdian and plaier in Enterludes, howbeit, a fine painter, as may appeare by his handyworke at Athens, within the publicke place Pompeium. *Eutychides* pourtraied a charriot
F drawne with two horses, and *Victorie* to guide and drive the same. *Eudoxus* had the name for his pictures which are seene at stage-plaies, to beautifie the place: who also was a good imageur and cast many faire peeces in brasse. *Iphis* was well thought of for *Neptune* and *Victorie* of his painting: and *Abron* was no lesse esteemed for the pictures resembling *Amitie* and *Concord*, as also for the pourtraitures of the gods. *Leontiscus* pictured *Aratus* the Generall of the Achæans, returning

[1] I am not of *Dalechampius* his opinio, who taketh *Iaso* here for the valiant knight *Jason*. For the termination of the word is meere feminine, as *Iö*, *Ins*, *Sappho*, and such like: besides, who sees not, that *Jaso* is respective unto Physick, for that *Iasis* in Greeke signifieth curing or healing, and it sorteth well with the names of her other sisters, which are likewise significant.

[2] That is to say, [levelling his shot at the Deere or wild beast] as *Dalechampius* doth interpret it: or els according to *Scoliger* [holding his hand over his eies to spie his game, and take his marke the better.]

[3] or *Scyllias*, according to *Herod.*

[4] *Prædonibus*, otherwise *Piscatoribus*, *i.* Fishermen.

[5] For he was the challenger, & none would come forth against him.

[6] For at wrestling especially, they caught up dust in their hands, to take hold the better of one anothers bodie, which were glib with oyle.

turning with victorie, and triumphing with his Trophee. Hee painted also a minstrell wench a G
playing upon a Psaltrie, and seeming to sing to it; which was thought to bee a daintie peece of worke. As for *Leon*, he painted *Sappho* the Poëtresse. And *Nicearchus* was much bruited abroad for a picture, shewing *Venus* accompanied with the Graces and the prettie *Cupids*. And of his workemanship is *Hercules*, sad and pensive: penitent also and repentant for that which hee had done in his furious madnesse. *Nealces* made one picture of *Venus* most curiously: for passing wittie he was, full of invention, and exquisit in his art. When he painted the navall battaile between the Ægyptians and the Persians, which was fought upon the river Nilus, the water whereof is rough and like the sea; because hee would have it knowne, that the fight was upon the said river, he devised another by-worke to expresse the same, which all the art of painting otherwise could not performe: for he painted an Asse upon the banke, drinking at the river, and a Crocodile ly- H
ing in wait to catch him: whereby any man might soone know it was the river Nilus, and no other water. *Oenias* the painter made one picture above the rest, which he called *Syngenicus*. *Philiscus* became renowned by a painters shop of his painting, where hee devised a prentice boy blowing the coales to kindle a fire. *Phalerion* pourtraied *Scylla*, transformed into a monstrous Meremaid. *Simonides* got credit by the picture of *Agatharchus*, who woon the best game at running: and of the goddesse of Memorie, named *Mnemosyne*. *Simus* took pleasure in painting a yong man lying asleepe in a waulke-mill or Fullers worke-house: another sacrificing unto *Minerva* at the feast *Quinquatrus*: & of the same mans doing, there is an excellent picture of *Nemesis*, representing Iustice and Revenge. *Theodorus* drew one snetting his nose: and the same painter represented in a table, how *Orestes* murdered his owne mother *Clytemnestra*, and *Aegysthus* the adulterer I
that kept her. The warre of Troy hee depainted in many severall tables: and these hang in the galleries of *Philip* at Rome. Of his handyworke is ladie *Cassandra* the Propheteesse, which is to bee seene in the chappell of *Concord*. Also, *Leontium* the courtisane belonging to *Epicurus* and his followers, was of his painting; like as king *Demetrius* musing and standing in a deepe studie. As for *Theon* the painter, hee described with his pensill the madnesse of *Orestes*, and pourtraied *Tamyras* the Harper or Musician. *Tauriscus* made one table, representing a man slinging a coit: and another resembling queene *Clytemnestra*. Hee pictured also a little *Pan*, whom hee called *Panniscus*, in manner of an Anticke: *Polynices* also making claime to his kingdome, and marching in warlicke manner to recover the possession thereof againe: and last of all, signieur *Capaneus*, who lost his life in skaling the walls of Thebes. And here commeth to my K
mind one notable example as touching *Erigonus*, which I cannot passe with silence: This *Erigonus*, servant sometime to *Nealces* the Painter, and employed onely in grinding colours, profited so much by seeing his maister worke, that hee became a painter himselfe, and left behind him an excellent workeman of his owne teaching, *Pausias*, brother to *Aegineta* the Imageur. But one thing more there is, of rare admiration and worthie to bee remembred, That the last peeces of excellent Painters, and namely such tables as bee left unperfect, are commonly better esteemed than those that bee fully finished: as wee may see by the Raine-bow or Iris which *Aristides* was entered into; the two brethren *Castor* and *Pollux*, begun by *Nicomachus*; the picture of *Medea*, killing the children that shee had by *Iason*, which *Timomachus* was in hand with; and the *Venus*, that as I said before, *Apelles* lived not to make an end of: for in these and such like L
imperfect tables, a man may (as it were) see what traicts and lineaments remaine to bee done, as also the very desseignes and cogitations of the artificers: and as these beginnings are attractive allurements to moove us for to commend those hands that began such draughts: so the conceit, that they bee now dead and missing, is no small greefe unto us, when wee behold them so raw and fore-let. But to come againe unto our Painters: there bee more yet behind, and those of very good regard in their time, howbeit, I will run them over slightly, and as it were passing and glauncing by them, namely, *Aristonides*, *Anaxander*, *Aristobulus* the Syrian, *Arcesilas* the sonne of *Tisicrates*, *Corybas* apprentice to *Nicomachus*, *Carmanides* to *Euphranor*, *Dionysodorus* the Colophonian, *Diogenes* who followed the court of king *Demetrius*, *Euthymedes*, *Heraclides* the Macedonian, *Mydon* of Solæ brought up under *Pyromachus* the Imageur, *Mnasitheus* of Sicyone, *Mnasithemus* the sonne of *Aristonides*, who was apprentice likewise unto him, and *Nessus* the sonne of *Abron*, *Polemon* of Alexandria, *Theodorus* of Samos, and *Stodius* (all three trained under *Nicosthenes*) and *Xenon* of Sicyone, who learned his craft of *Neocles*. M

Moreo.

A Moreover, women there were alſo, excellent*Paintreſſes, to wit, *Timarete*, the daughter of *Ni-con*, who made that excellent pourtraiture of *Diana* at Epheſus, a moſt antique picture: *Irene* the daughter of *Cratinus* the painter, who learned under her father, & drew the picture of a yong damoſell, which is at Eleuſine: *Calypſo*, of whoſe workemanſhip there is the picture of an old man, and of *Theodorus* the juglar: *Alciſthene* painted a dauncer: and *Ariſtarete*, both daughter and apprentiſe to *Nearchus*, made proofe how well ſhe had profited by the picture of *Aeſculapius*. And *Marcus Varro* ſaith, That when hee was a young man, there was at Rome one *Lala*, a Cyzecene borne, who paſſed her whole life in virginitie; and ſhe was skilfull both in painting with the penſill, and alſo in enamelling with hote ſteele in yvorie: her delight was principally in drawing women; and yet there is a Neapolitane of her pourtraying in a faire long table: laſt of all, ſhe tooke
B out her own counterfeit at a mirroir or looking glaſſe. This one thing is reported of her, That no painter had a quicker hand or went faſter away with his worke than ſhee: and looke what pictures ſoever came out of her hands, they were ſo artificially done, that they did out-ſell a great deale the workes of *Sopylos* and *Dionyſius* (the moſt famous painters in that age) notwithſtanding their pictures and tables were ſo faire, as that they take up whole cabinets; and well was hee (before that her pictures came abroad) who could be furniſhed out of their two ſhops. There was yet one paintreſſe more, to wit, *Olympias*: howbeit I heare no great matter of her, but this onely, that ſhee taught *Autobulus* the art of painting.

To come now unto painting by the meanes of fire: I find this agreed upon by all, that practiſed it was in old time but two waies onely, that is to ſay, with wax, and in yvorie with a little ſteele
C or punching yron; untill ſuch time as they fell to painting ſhips alſo with wax and fire: and in this third ſort the manner is to uſe great penſils or bruſhes dipt in wax molten over the fire. And this kind of painting ſhips is ſo faſt and ſure, that neither ſunne will reſolve, nor ſalt water eat and fret, ne yet wind and weather pierce and chinke it.

Moreover, in Ægypt they have a deviſe to ſtaine cloths after a ſtrange and wonderfull maner: They take white clothes, as ſailes or curtaines when they have beene worne, which they beſmeare not with colours but with certaine drougs that are apt to drinke and take colour: when they have ſo done, there is no apparence in them at all of any die or tincture. Theſe clothes they caſt into a lead or cauldron of ſome colour that is ſeething and ſcalding hote: where, after they have remained a pretie while, they take them forth againe, all ſtained and painted in ſundrie colours. An ad-
D mirable thing, that there being in the ſaid cauldron but onely one kind of tincture, yet out of it the cloth ſhould be ſtained with this and that colour, and the foreſaid boiling liquor chaunge ſo as it doth, according to the qualitie and nature of the drougs which were laid upon the white at firſt. And verely, theſe ſtaines or colours are ſet ſo ſure, as they can never be waſhed off afterwards. Thus the ſcalding liquor, which no doubt if it had diverſe tinctures and colours in it, would have confounded them all into one: now out of one doth diſpenſe and digeſt them accordingly, and in boiling the drougs of the cloths, ſetteth the colour and ſtaineth ſurely. And verely, this good moreover have the clothes by this ſcalding, that they be alwaies more firme and durable, than if they had not come into the boiling cauldron.

E

Chap. XII.

The firſt deviſers of the art of Potterie, and in working in cley. Of Images made of earth. Of earthen veſſels, and their value in old time.

NOw that I have diſcourſed of painting ynough, if not too much, it were good to annex and joine thereto the craft of Potterie, and working out of cley. And to begin with the originall and invention of making the image or likeneſſe of any thing in cley, it is ſaid, That *Dibutades*, a Sicyonian borne and a Potter, was the firſt that deviſed at Corinth to form an image in the ſame cley whereof he made his pots, by the occaſion and meanes of a daughter which hee had: who being in love with a certaine young man, whenſoever hee was to take a long journey far
F from home, uſed ordinarily to marke upon the wall the ſhaddow of her lovers face by candle light and to pourfill the ſame afterwards deeper, that ſo ſhee might enjoy his viſage yet in his abſence. This her father perceiving, followed thoſe tracts, and by clapping cley thereupon, perceived that it tooke a print, and made a ſenſible forme of a face: which when hee ſaw, hee put it into the furnace to bake among other veſſels, and when it was hardened, ſhewed it abroad. And it is ſaid, that

this

*i. that knew how to handle the penſill.

this very peece remained in the baines of Corinth safe, untill *Mummius* destroied the citie. How- G
beit, writers there bee who affirme, That *Rhœcus* and *Theodorus*, both of the Isle Samos, were the
first inventors of this feat of forming shapes in cley, long before the expulsion of the **Bacchia-* **i.* The race of *Bacchis*, who for a time reigned at Corinth.
dæ out of Corinth. And by their saying, when *Demaratus* was faine to flie out of that cittie, and
to retire himselfe into Tuscan (where he begat *Tarquinius*, afterwards surnamed *Priscus*, and king
of Rome) there accompanied him from Corinth *Eucheir* and *Eugrammus*, two Imageurs in cley,
and they taught in Italie the art of Potterie and imagerie in that kind. As for *Dibutades* before-
said, the inventor he was not of this craft, but indeed he devised to use with other cley and earth,
a ruddle, or else to colour the white cley with madder: His invention it was to set up Gargils or
Antiques at the top of a Gavill end, as a finiall to the crest tiles, which in the beginning he called
**Protypa*. The same man afterwards devised other counterfeits, and those he tearmed *Ectypa*: And H
hence came the louvers and lanternes reared over the roofes of temples, which are so curiously
wrought in earth. In summe, this man gave the originall name *Plastica* to the craft, and *Plastæ* to
the craftsmen in this kind. But *Lysistratus* of Sicyone, and brother to *Lysippus*, of whom I have
written before, was the first that in plastre or Alabaster represented the shape of a mans visage in
a mould from the lively face indeed; and when he had taken the image in wax, which the foresaid
mould of plastre had given, used to forme and fashion the same more exactly. This man staid not
there, but began to make images to the likenesse and resemblance of the person: for before him
every man studied onely to make the faitest faces, and never regarded whether they were like or
no. *Lysistratus* also invented to make counterfeits in cley, according to the images and statues in
brasse, already made. And in the end, this feat of working in cley grew to such height, that no ima- I
ges or statues were made without moulds of cley: Whereby it may appeare, that the skill and
knowledge of Potterie is more auncient than founderie or casting brasse. To come now to Ima-
geurs in cley, *Damophilus* and *Gorgasus* were counted most excellent & principall of all others,
and they were good painters besides: as may appear by the temple of *Ceres* in Rome, which stan-
deth at the greatest shew-place, called Circus Maximus, which these two workemen enriched
both with pictures, and also with earthen images: for in the said temple there be certain Greeke
verses set up, which testifie, That all the worke on the right hand was wrought by *Damophilus*, and
on the left hand by *Gorgasus*. Before this temple was built, *M. Varro* saith, That all Rome was
furnished with images, of Tuscane worke, and no other: but out of this church, when it was ree-
dified, the pictures upon the walls were esteemed so rich, that people thought them worthie to K
be cut out in great crusts and flakes out of the said walls; and for to save them, they bestowed cost
to set them in frames faire crested about the edges: also (by his report) the images wherewith the
festeries and lovers of the said church stood adorned, were dispersed into diverse parts of the citie,
as singular peeces of worke, and well was he that could have one of them. Moreover, I read, that
Chalcosthenes made diverse peeces of worke in raw cley at Athens, and the place called Cerami-
cos tooke the name of his worke-house. And *M. Varro* doth write, That himselfe knew at Rome a
certaine man named *Posis*, who was wont to make of cley, clustres of grapes, and fishes, so lively,
that whosoever looked upon them, could hardly have discerned them by the eye from grapes and
fishes indeed. The same author doth highly extoll and magnifie one *Arcesilaus*, a very familiar
Hee meaneth those whereby images of brasse were cast. friend of *Lu. Lucullus*, and whome hee loved very well, whose *moulds were commonly sold L
dearer even to workemen themselves, than the workes of others after they were finished. And
he saith, That the image of *Venus Genetrix*, which standeth in the Forum of *Cæsar*, was of his
making: but before he had fully finished the same, for hast of dedication, it was set up unperfect.
After which time (as he affirmeth) *Lu. Lucullus* bargained with him to make the image of *Felici-
tie*, for which hee was to have threescore thousand sesterces, howbeit, the death both of the one
and the other, was the cause that the worke was never finished. As for *Octavius*, a knight of Rome
being minded to make a fair standing cup, he paied unto him for the mould in plastre one whole
talent. The same *Varro* praiseth also *Praxiteles*, who was wont to say, that the craft of Potterie and
working in cley, was the mother of Founderie, and of all workes that are cut, engraven, chased,
and embossed: who, albeit he were an excellent founder and imageur in brasse, and knew how to M
carve, grave, and chase passing well, yet would hee never goe in hand to make any peece of worke,
but he would forme it first in cley, in a mould of his owne making. Moreover, this art (by his say-
ing) was much practised in times past, in Italie and Tuscane especially: from whence, and namely
out of the citie Fregellæ, king *Tarquinius Priscus* sent for one *Turianus*, to no other purpose in

the

A the world, but to agree with him for to make the image of *Iupiter* in earth to be ſet up in the Capitoll: for ſurely, no better hee was than made of clay, and that by the hand of a potter; which was the reaſon, that they uſed to colour him over with vermillon: yea and the charriots with foure horſes which ſtood upon the lanterne of the ſaid temple, were of no other ſtuffe; concerning which, I have ſpoken in many places. The ſame *Turianus* alſo made the image of *Hercules*, which at this day retaineth ſtill in the cittie that name, which teſtifieth what matter he is made of. Loe, what kind of images there were in thoſe daies made in the honour of the gods by our auncеſtors, for the moſt excellent! neither have we cauſe to bee aſhamed of thoſe our noble progenitours, who worſhipped ſuch and no other. As for ſilver and gold, they made no reckning thereof, either about themſelves or the verie gods whome they worſhipped. And verely, even at this
B day there continue ſtill in moſt places, ſuch images of earth. As for the feſtiers and lanterns of temples, there bee many of them both within the cittie of Rome, and alſo in divers burrough towns under the Empire, which for curious workemanſhip (as it were chaſed and engraven) are admirable; and for continuance of time more laſting and durable, than our louvers of gold; and for any harme they doe, leſſe ſubject I am ſure to injurie. Certes in theſe daies, notwithſtanding the infinit wealth and riches that wee are growne unto, yet in all our divine ſervice and ſolemne ſacrifices, there is no aſſay given or taſt made to the gods out of Caſſidoine or criſtall bolls, but onely in earthen cups. If a man conſider theſe things aright, and weigh them duly in particular, he ſhall find the bounty and goodneſſe of the Earth to be inenarrable, though he ſhould not reckon her benefits that ſhee hath beſtowed upon mankind, in yeelding us ſo many ſorts of corne,
C wine, apples, and ſuch like fruits, hearbs, ſhrubs, buſhes, trees, medicinable drugs, mettals, and minerals, which I have alreadie treated of: for even in theſe works of earth and potterie, which we are glutted with (they be ſo uſuall and ordinarie) how beneficiall is the Earth unto us, in yeelding us conduit-pipes for to conveigh water into our bains, tyles flat yet hooked and made with crochets at one end to hang upon the ſides of the roofe, chamfered for to lie in gutters to ſhoot off water, curbed for creſts to claſpe the ridge on both ſides; bricks to lie in walls afront for building, and thoſe otherwhiles to ſerve as binders in parpine-worke with a face on both ſides; to ſay nothing of the veſſels that be turned with the wheele and wrought round; yea and great tuns and pipes of earth deviſed to containe wine and water alſo? In regard of which ſtone and earthen veſſels, K. *Numa* ordained at Rome a ſeventh confraternitie of potters. Over and beſides, many
D men there have been of good works and reputation, who would not bee burnt to aſhes in a funerall fire after they were dead, but choſe rather to have their bodies beſtowed entire within coffins of earth, lying among leaves of myrtle, olive, and blacke poplar, after the Pythagorean faſhion: in which manner, *M. Varro* tooke order for to be interred. And if we looke abroad into the world, moſt nations under heaven doe uſe theſe earthen veſſels: and even ſtill, thoſe that bee made of Samian earth and come from that Iſle, are much commended for to eat our meats out of, and to be ſerved to the bourd: and Eretum here in Italie, retaineth yet the name for ſuch veſſell: but for drinking-cups onely, Surrentum, Aſia, and Pollentia, within Italie; Saguntum in Spaine, and Pergamus in Aſia, be in credit: at Tralleis alſo a citie in Sclavonia, and Modenna (to go no farther than Lombardie in Italie) there is made much faire veſſell of earth, appropriat unto thoſe
E places: for even in this reſpect, ſome nations are ennobled and growne into name. This earthen ware is of that price beſides, that it is thought a commoditie worth the tranſporting too and fro over land and ſea, by way of merchandiſe. But if we ſpeake of that kind that is wrought by turners craft with the wheele, the daintieſt veſſels come from Erythræ. And in verie truth, ſuch may the earth be, that much art and fine workmanſhip is ſhewed therein: in teſtimonie whereof, there be two ſtone veſſels or earthen (call them whether you will) within the principall temple of that citie to be ſeene at this day, thought worthie to be conſecrated there, in regard of their cleane worke and their thinneſſe beſides; which a maſter and his prentice wrought in a ſtrife and contention, whether of them could drive his earth thinneſt: however it bee, they of the Iſland Cos are moſt commended for the faireſt veſſels of earth; and yet thoſe of Hadria beare the name to be more
F durable, and of a more faſt and firme conſtitution. And ſince I am entred thus far, I will obſerve unto you ſome examples of ſeveritie not impertinent to this diſcourſe: I find upon record, that *Q. Ceponius* was condemned and fined for an ambitious man, onely for this, becauſe hee had ſent an earthen * amphor [of wine] as a preſent unto one who was to give him his voice when hee ſtood for an office. And that you may certainly know that veſſels of earth have in ſome ſort been

* *Vini amphoram*: I ſuppoſe that he meaneth the veſſell it ſelfe for wine, and not full of wine.

been in request among roiotous gluttons and wastfull spendthrifts, listen what *Fenestella* saith as touching this point, The greatest exceeding (quoth hee) and gaudiest fare at a feast, was served up in three platters, and was called Tripatinum: the one was of Lampreys, the second of Pikes, the third of the fish Myxon: whereby it may appeare, that even in those daies men began at Rome to grow out of order, and to give themselves to roiot and superfluitie: yet were not they so bad, but wee may preferre them even before the Philosophers of Greece: for it is written, that in the sale of *Aristotles* goods, which his heirs made after his decease, there were sold threescore platters, which were woont ordinarily to goe about the house. As for that one platter of *Æsope* the plaier in tragœdies, which cost six hundred thousand sesterces, I doubt not but their stomackes rise thereat when they read thereof in my treatise as touching birds. But this is nothing (I assure you) to that charger of *Vitellius*, who whiles hee was Emperour caused one to be made and finished that cost a * million of sesterces, for the * making whereof there was a furnace built of purpose in the field: the which I rather note, because you should see the monstrous excesse in these daies, that vessels of earth should be more costly than of Cassidonie. Alluding to this monstrous platter, *Mutianus* in his second Consulship (when hee ripped up in a publicke speech, the whole life of *Vitellius*, now dead) upbraided the verie memoriall of him in these very tearms, calling his excesse that way, Patinarum paludes, *i.* Platters as broad as pools. And verely (saith hee) that platter of *Vitellius* came nothing behind another, which *Cassius Severus* reproched *Asprenas* withall, whome hee accused bitterly and said, that the poison of that one platter, had killed a hundred and thirtie persons who had tasted thereof.

* *Decies sestertium*, according to *Budæus*: but if you read according to *Hotomanus*, *ducenties*, it is twentie times as much more.

* This platter he called, the targuet of *Minerva*, and hee gat himselfe therby a name to be called *Patinarius*. See *Sueton.*

Furthermore, there be certaine townes that are in good account by reason onely of this vessell made therein, and namely Rhegium and Cumæ.

The priests of *Cybele* the mother of the gods, who are called Galli, use to gueld themselves with a sheard of Samian earth; and they be of opinion, that if it be done with any thing else, they shall die thereof, if wee may beleeve *M. Cælius*, who whetted that tongue of his (which shortly after was in that sort to bee cut out) against *Vitellius*: which turned to his great reproach and infamie, for that himselfe even then railed upon *Vitellius* in so bad tearms, and lost his tongue for his labour.

But to conclude, what is it, that Art and the wit of man hath not devised? for there is means found to make a strong kind of mortar or cement by the broken sheards of potters vessell, if the same bee ground into powder and tempered with lime; and the ordering of it in this manner, causeth it to be more firme and last the longer; and such they call Signina. And hereby also men have found out certaine durable pavements of that kind.

Chap. xiii.

The varietie of sundrie kinds of earth: of the dust or sand of Puteoli: and of other sorts of earth which will harden as a stone.

OVer and besides the cement above-named, there bee other parcels that the earth it selfe doth affourd, fit to be laid in paving-worke: for who can sufficiently wonder at this, namely, That the woorst part of it (which thereupon is called dust and sand, as it were the verie excrement thereof) should be of that nature upon the side of the hills of Puteoli, as being opposed against the waves of the sea, and continually drenched and drowned therewith, should become a stone so compact and united togither as it were into a worke, that it scorneth all the violence of the surging billows; which are not able to undermine and pearce the same, but hardeneth every day more than other; even as if it were tempered with the strong cement of Cumes. Of the same propertie is the earth within the countrey about Cyzicum: onely this is the difference, that not the dust or sand there, but the earth it selfe cut out into what parcels you will, in case it be drenched in the sea water a certaine time, is taken forth againe a verie hard stone. The same (by report) happeneth about the cittie Cassandria: as also about Gnidos in a fountaine of fresh water, wherein if earth doe lye, within the space of eight moneths it will turne to be a stone. Certes, all the way as a man goeth from Oropus as farre as to Aulis, what ground soever is beaten upon by the water, chaungeth into rocks and stones. There is found also in Nilus a certaine sand, whereof the finest part differeth not much from that of Puteoli beforesaid; not in regard

that

A that it is so strong as to breake the force of the sea water and to beat backe the waves, but to subdue and crush the bodies of our young gentlemen, and therefore serveth well in the publicke place of wrestling for those that bee given to such exercises: And for this purpose verely was it brought from thence by sea unto *Patrobius*, a slave lately enfranchised by *Nero* the Emperour. I read also, that *Leonatus*, *Cratus*, & *Meleager*, who were great captains under *Alexander* the Great and followed his court, were woont ro have this sand carried with them, with other baggage belonging to the campe. But I meane not to write any more of this argument, no more verely than of the use of earth in those places where our youth annoint their bodies against they should wrestle; wherein our youths addict themselves so much to the exercise of the bodie, that they have spoiled themselves otherwise, and lost the vigor of the mind.

B

Chap. xiiii.

Of mud walls: of Bricke walls, and the order and manner of making them.

WHat shall wee say? See wee not in Affricke and Spaine both, certaine walls of earth, which they call * Fornacei, of the forme and frame that is made of planks and bourds of each side, betweene which a man may say they are rather infarced and stuffed up, than otherwise laid and reared orderly: but I assure you, the earth thus infarced, continueth a world of yeers and perisheth not, checking the violence of raine, wind, and fire, no mortar and C cement so stiffe and strong. There are yet to be seene in divers parts of Spaine, the watch-towers of *Anniball*, the high turrets and skonces also reared upon the tops of hills, made all of earth: and hereof wee have our turfs, which naturally are so proper not onely for the rampiers and fortifications of a campe, but also for wharfs, bankes, and buttresses, to breake the violence and inundation of rivers. As for the manner of making walls, by dawbing windings and hurdles with mud and clay, also of rearing them otherwhiles with unbaked bricke; who is so ignorant that he knoweth it not? Howbeit, for to make good bricks, they ought not to be made of any soile that is full of sand and gravell, much lesse then of that which standeth much upon grit and stones, but of a greyish marle or whitish chalkie clay, or at leastwise a reddish earth: but in case wee be forced to use that which is given to bee sandie, yet wee must chuse that kind of sand which is tough and D strong. The best season to make these brickes or tyles, is in the Spring time; for in the mids of Summer they will cleave and be full of chinks: but if you would have good bricks for building, they ought to bee two yeers old at the least. Now the batter or lome that goeth to the making of them, ought to bee well steeped and soked in water, before it bee fashioned into bricke or tyle. Bricks are made of three sizes: The ordinarie bricke that wee use, is called Didoron, which carrieth in length one foot and a halfe, and in breadth a foot: a second sort is named Tetradoron, *id est*, three foot long: and the third, Pentadoron, of three foot and nine inches in length: for the Greeks in old time, called the span or space of the hand from the thumbe to the little fingers end stretched out, Doron; which is the reason that gifts and rewards be called in their language, Doræ, for that they were presented by the hand. You see therefore, how according to the length E that they carrie, either of foure or five spans, they have their denomination of Tetradora, or Pentadora; for the breadth is one and the same in them all, to wit, one foot over. Now there being this difference in the size, in Greece the manner is to employ the smaller sort in their privat buildings, but the bigger serveth for greater publicke workes. At Pitana in Asia, and in Massia and Calentum, citties of low Spaine, the bricks that be made, after they are once dried, will not sinke in the water, but flote aloft; for of a spungeous and hollow earth they be made, resembling the nature of the pumish stone, which is very good for this purpose, when it may be wrought. The Greeks have alwaies preferred the walls of bricke, before any others, unlesse it be in those places where they had flint at hand to build withall: for surely such bricke walls, if they be made plumbe upright & wrought by line and levell, so as they neither hang nor be battred, be everlasting: and I therfore such bricks serve for walls of cities & publick works; their roiall pallaces likewise be built therewith. After this sort, was that part of the wall at Athens laid and reared, which regardeth the mount Hymettus: so they built also at Patræ, the temples of *Iupiter* and *Hercules*, although all the columns, pillars, and architraves round about them, were of ashler stone: thus was the pallace of K. *Attalus* built at Tralleis; likewise that of K. *Cræsus* at Sardis, which afterward was converted

* Some read *fornacei*, i. arched walls.

to their Senate-houſe, named Geruſia: likewiſe the ſumptuous and ſtately houſe of K. *Mauſolus* at Halicarnaſſus: which goodly ædifices continue at this day. Wee read in the Chronicles, that *Muræna* and *Varro* when they were the high Ædiles at Rome, cauſed the outmoſt coat which was overcaſt of the brick-walls of Lacedæmon, to be cut out whole and entire, and to be ſet and encloſed within certaine frames or caſes of wood, and ſo to be tranſlated from thence to Rome, for to adorne and beautifie the publicke hall for elections of magiſtrates, called Comitium; and all for the excellent painting upon that parget. The workmanſhip therein although it were excellent & wonderfull in it ſelfe, yet being thus removed and brought ſo far aſide, it was eſteemed more admirable. Moreouer, here within Italie the walls of Aretine and Mevania be made all of bricke: marie at Rome they dare not build their houſes with this kind of brick, becauſe a wall bearing in thickneſſe but one foot and an halfe, will not ſuſtain above one *ſingle ſtorie: for the order of the citie permitted not the common wals and thoſe which were outmoſt, to be thicker than a foot and an halfe: neither will the partition wals within abide that thickneſſe, but are made after another ſort.

* For by reaſō that Rome was ſo populous, they made many lofts over head, ſo that the building was raiſed to 60 and 70 foot in upright walls: & theſe ſerved as tenements, & were called *Cœnacula*, & one paire of ſtaires leading into the ſtreet, ſerved them al: whereas the lord and maſter of the houſe kept beneath with his houſhold, and was not troubled with theſe tenants or in-mates.

Chap. xv.

Of Brimſtone and Alume, with their ſeverall kinds: alſo their medicinable properties.

HAving ſpoken ſufficiently of Brickes, it remaineth that I ſhould proceed to other kinds of earth: wherein the nature of ſulphur or brimſtone is moſt woonderfull, beeing able as it is to tame and conſume the moſt things that be in the world. It is ingendred within the Iſlands Æoliæ, which lie betweene Italie and Sicilie; thoſe I meane which (as I have ſaid before) doe alwaies burne by reaſon thereof. Howbeit, the beſt ſulphur is that which commeth from the Iſle Melos. There is found thereof likewiſe in Italie, within the territorie about Naples and Capua, and namely in the hils called Leucogæi: that which is digged out of the mines, is fined and brought to perfection by fire. Of brimſtone there be foure kindes: to wit, Sulphur-vif or Quick-brimſtone, which the Greeks call Apyron, becauſe it never came into the fire: the ſame is found ſolid of it ſelfe, that is to ſay, by whole pieces and in maſſe, which their Phiſicians doe uſe, and none but it: for all the other kinds conſiſt of a certaine liquid ſubſtance, and beeing boyled in oyle are made up and confected to their conſiſtence: whereas the ſulphur-vif is digged out of the mine ſuch as we ſee, that is to ſay, tranſparent cleere, and greeniſh. The ſecond kind is named Gleba, good onely for Tuckers and Fullers. The third ſort alſo yeeldeth but one uſe and no more, and that is, for tincture of wooll, by reaſon that the ſmoke and perfume thereof will bring it to be white and ſoft; and this brimſtone they call Egula. As for the fourth kind, it ſerveth moſt of all for matches and wieks.

As touching the nature of Brimſtone, ſo forcible it is, that if it bee caſt into the fire, the verie ſmell and ſteeme thereof will drive thoſe in the place into a fit of the falling ſickneſſe, if they bee ſubject thereunto. As for *Anaxilaus*, he would commonly make ſport withall at a feaſt, and ſet all the gueſts into a merriment: for his manner was to ſet it a burning within a cup of new earth over a chafing-diſh of coales, and to carrie it about the table where they were at ſupper: and in verie truth the reverberation of the flame would make all that were neere it to looke pale and wan after a moſt fearfull manner, like as if there were as many griſly ghoſts or dead mens faces. And to come more neere to the properties that it hath reſpective unto Phyſicke, It heateth mightily, and is a maturative: it doth reſolve withall and diſcuſſe any gathering of impoſtumes; in which regard it entreth ordinarily into ſuch plaſtres that be diſcuſſive and emollitive. A cataplaſme made with it incorporat with greaſe or ſewet, and ſo applied unto the loynes and region of the kidneies, doth woonderfully aſſuage the paine and griefe in thoſe places: beeing tempered with turpentine, it riddeth away the foule tetters called Lichenes that ariſe in the face; yea and cleanſeth the leproſie. The Greekes have a prettie name for it and call it Harpacticon, for the ſpeedie remooving and ſnatching it from the place where it is applied; for eftſoons it ought to bee taken away. The ſame reduced into a lohoch or liquid electuarie, is good to be licked and let downe ſoftly towards the lungs, in caſe of ſhortneſſe and difficultie of wind: in which ſort it ſerveth for them that ſpit and reach out of the breaſt by coughing, filthie matter: and ſoveraigne it is for thoſe that be ſtung with ſcorpions. Take ſulphur-vif,

mix

A mix it with ſal-nitre, grind the ſame togither with vinegre, it maketh a ſingular good liniment for to ſcoure the foule morphew: let the ſame be tempered and prepared with vinegre of Sandaracha, it killeth the nitts that breed in the eye-lids. Moreover, brimſtone is emploied ceremoniouſly in hallowing of houſes; for many are of opinion, that the perfume and burning thereof, will keepe out all enchauntments, yea and drive away foule fiends and evill ſprites that do haunt a place. The ſtrength of ſulphur is evidently perceived and felt in the ſprings of hot waters, that boile from a veine of it: neither is there in all the world, a thing that ſooner catcheth fire; wherby it is apparent, that it doth participat much of that element. Thunderbolts and lightnings in like manner doe ſent ſtrongly of brimſtone: the verie flaſhes and leams thereof ſtand much upon the nature of ſulphur, and yeeld the like light. Thus much ſhall ſuffice as touching the na-
B ture of ſulphur.

The nature of Bitumen approcheth neare unto brimſtone: where it is to be noted in the firſt place, that the bitumen whereof I ſpeake, is in ſome places in manner of a muddie ſlime; in others, a verie earth or minerall. The ſlimie bitumen ariſeth (as I have ſaid before) out of a lake in Iurie: as for the minerall bitumen, it is found in Syria, about a maritime town upon the ſeacoaſt, called Sidon: but both the one and the other are of a compact and maſſie ſubſtance, growing together faſt and unite. And yet there is a kind of Bitumen liquid, and namely that of Zacynthus, and the Bitumen which is brought from Babylon, where verely it is white naturally as it groweth. The Bitumen alſo which commeth from Apollonia is liquid: and all theſe the Greeks doe comprehend under one name Piſſaſphalton, a word derived of Pitch and Bitumen. There is
C a fattie kind of Bitumen likewiſe reſembling an unctuous or oleous liquor, within the territorie of Agragentum in Sicilie, ariſing out of a fountaine, and it floteth aloft: The Inhabitants of the countrey uſe to skum and fleete it off by the meanes of certaine chats or catkins which grow upon many reeds and canes, for quickly will it hang and cleave to the downe of ſuch. Great uſe they have of this Bitumen, for it ſerveth their turns to maintaine lamp-light, inſteed of oile: and therewith alſo they kill the farcins, ſcabs, and mange in their jades and labouring garrons. Some writers there be who reckon Naphtha (whereof I haue written in my ſecond booke) to be a kind of Bitumen; but ſo ardent it is, and holdeth ſo much of the fire, that we know not which way to make any uſe thereof. Concerning the markes of good Bitumen, the beſt is knowne by the gloſſe that it carrieth, if it ſhine exceeding much: the ſame alſo is ponderous and weightie:
D whereas the lighter ſort is but indifferent heavie, and argueth ſome ſophiſtication with pitch. In operation it hath the qualities of brimſtone; a bringent it is, and yet reſolutive: it draweth together and ſoldereth withall. A perfume thereof, while it burneth, chaſeth away ſerpents. The Babylonian Bitumen is thought to be verie effectuall for the cataracts, pearles, and filmes that overſpred the eies: ſoveraine likewiſe for the leprie, the filthie tettars of the face called Lichenes, and the itch in any part of the bodie: it ſerveth in a liniment for the gout: and there is no kind thereof, but it cauſeth the haires of the eye-lids, which grow untowardly and fall into the eyes, for to turne up againe. If the teeth bee well rubbed with Bitumen and ſal-nitre together, it doth eaſe and aſſuage their paine: and beeing given in wine, it helpeth an old cough, and the ſhortneſſe of wind. In caſe alſo of the diſſenterie, it is taken in that manner, for it ſtaieth a bloudie flix: but if it bee drunke with vinegre, it doth diſcuſſe and diſſolve *cluttered bloud which
E is within the bodie, and expelleth the ſame downeward by ſeege: it dooth likewiſe aſſuage the paine of the loines or ſmall of the backe, and generally mittigateth any greefe of the joints, if it bee laid too in manner of a cataplaſme with Barley meale. There is a ſpeciall plaſtre or cataplaſme made of Bitumen, which carrieth the name thereof; it ſtaunch eth bloud, it bindeth and draweth together the edges of a wound, alſo it knitteth and uniteth againe ſinewes which bee cut in twaine. There is an ordinarie medicine alſo for the quartane ague, made in this wiſe: Take of Bitumen one dram, of Mints the like weight, of Myrrhe the quantitie of one Obolus, mix and incorporat all theſe together: A perfume or ſmoake thereof will bewray the falling ſickneſſe. The very ſmell of Bitumen alſo diſcuſſeth the fitts of the mother when it riſeth and
F ſtoppeth the womans breath: A ſuffumigation thereof, doth likewiſe reduce the mattice and tiwill into the right place, if they bee ſlipped and fallen downe too low, and readie to hang foorth of the bodie: Being drunke with wine and Caſtoreum, it bringeth the ordinarie courſe of the monethly tearmes in women. It ſerveth alſo for diverſe and ſundrie other uſes than in Phyſicke: for if any braſen pots, chaufers, pans or kettels, and ſuch like veſſels, bee enhuiled there-

* Hereupon is an ordinarie medecine, to give *Mumia* (which is *Piſſaſphaltō*) unto thoſe that are falne from on high and be inwardly bruiſed.

therewith, it hardeneth them againſt the violence of fire. I have ſaid alreadie, that they were wont in old time to verniſh their images with bitumen: it hath ben uſed in mortar alſo in ſtead of lime, and with that kind of cement were the walls of Babylon laid, and the ſtones ſodered togither. Iron-ſmiths alſo have much uſe of bitumen, and namely, in ſanguining or colouring their iron-worke; and nailers eſpecially about their naile heads; many other wayes likewiſe it ſerveth their turne. G

As touching Alume, which we take to be a certaine ſalt ſubſtance or liquor iſſuing out of the earth, there is no leſſe uſe thereof than of bitumen, and the emploiment is not much unlike. Of alume there be many kinds: in the Iſland Cypreſſe there is found alume which they call White, and another named Blacke: and albeit the diſtinction in the colour bee but ſmall, yet it is occupied to farre different uſes; for the cleare alume which they name the white, is proper for to colour wooll with any bright tincture; contrariwiſe, the blacke ſerveth for ſad, darke, and browne colours. The foreſaid blacke alume is occupied much by goldſmiths, to purge and purifie their gold: and yet all theſe alumes the one as well as the other, be engendred of water & ſlimie mud, that is to ſay, of a certaine ſweat that the earth naturally doth yeeld: it is ſuffered to run and gather togither into a place, during winter; and in the heat of the ſummer, it fermenteth and taketh the perfection: that which commeth ſooneſt to concoction and ripeneſſe, the ſame is alwaies the whiteſt and pureſt. As touching the mines of alume, they grow naturally in Spaine, Ægypt, Armenia, Macedonie, Pontus, and Affricke, which be all countries of the continent: in the Iſlands likewiſe it is found, namely in Sardinia, Melos, Lipara, and Strongyle. The beſt ſimply is that which commeth out of Ægypt, and in the next place is that accounted of Melos. In ſum, alume may be reduced into two principall kinds; for either it is pure and cleare, or els thicke and groſſe: As for the former kind, it may be knowne whether it be good and naturall, if it be bright like water, and white as milke, not offenſive to their hands that rub it, & yet participating in ſome ſort of a fierie heat; this they call Phormion: but in caſe it be ſophiſticat, you may ſoon find it by the juice of a pomegranat; for that which is true and in the right kind, is no ſooner mixed therewith, but it waxeth blacke. The ſecond ſort is of a pale colour, and beſides naturally rugged in the hand, and lightly it will ſtaine like gall nuts; which is the reaſon that the Greeks call it Paraphoron. The vertues of the cleare alume, be aſtringent, hardning, and fretting: if it be tempered with honey, it healeth the cankers or ſores in the mouth: wheals and itch it likewiſe cureth in any part of the bodie: but this inunction muſt be uſed in a baine; and regard ought to be had of it in the proportion, namely, that there be two third parts of honey to one of alume. The ranke ſmell of the arme-holes it doth allay, and repreſſeth ſweat and the ſtinke thereof: it is taken in pills, for the obſtructions and ſchirrhoſities of the ſpleene: and in that ſort, it driveth away an itch & ſendeth forth corrupt bloud by urine: made into an unguent with Sal nitre and Nigella Romana, it healeth the bleach or ſcabs. Of alume that is thicke, hard, and maſſive, there is one kind which the Greeks call * Schiſtos, and the nature thereof is to cleave along into certaine filaments or threads like haires, of a greyiſh colour; which is the reaſon that ſome have given it rather the name of Trichitis: howſoever it be named, it commeth of a certaine marqueſit ſtone, wherupon alſo they call it Chalcitis; ſo as it may be counted a verie ſweat of the ſaid ſtone, gathered togither or congealed into a fome. This kind of alume is exiccative; howbeit, not ſo good as the other to repreſſe any offenſive humors in the bodie: but ſurely it is ſingular for the ears, either infuſed, or applied as a liniment: it helpeth alſo the ſores of the mouth, if a man let it melt togither with the ſpittle or moiſture of the mouth: for eyeſalves likewiſe it ſerveth fitly among other ingredients; and is verie appropriat for the accidents befalling to the ſecret parts of either ſex, as well men as women: but before it bee uſed, it would be boiled upon a pan over the fire, untill it give over to melt. There is another ſort of alume, that is weaker in operation, which the Greeks call Strongyle: and this likewiſe is found of two ſorts; the one is hollow and light in maner of muſhroms, eaſie to bee melted in any kind of liquor; and this is altogither rejected as good for nothing: the other is hollow alſo and light in manner of a pumiſh ſtone, full of holes too, but reſembling the pipes rather of ſpunges; the ſame is round in forme, and enclining to a white colour; a certaine unctuoſitie or fattineſſe it carrieth with it, apt to breake and crumble, and yet without ſand, neither will it colour and ſtaine the fingers blacke in the handling: this muſt bee calcined by it ſelfe upon cleare burning coles, untill ſuch time as it bee reduced into aſhes. But would you know the beſt and principall alume of all the ſorts that are? It is that (no doubt) H I K L M

* Some take this for alume de plume: others, for the ſtone *Amiantus*.

which

A which (as I have ſaid before) is brought out of the Iſland Melos, and therefore called Melinum. Certes, there is not an Alume more aſtringent, nor more proper to harden: none more firm and thicke than it. It doth ſubtiliat the roughneſſe of the eyes: and being calcined, it is the better for to repreſſe the fluxion of humors into the eyes: and in the ſame ſort prepared, it killeth the itch in any part of the bodie: generally, whereſoever it is applied outwardly, it ſtaunch eth bloud: being uſed in a liniment with vinegre unto any place where the haire hath been plucked up, it cauſeth that which commeth againe to be but ſoft and in manner of a downe. There is no kind of it, but the ſame is exceeding aſtringent, whereupon it tooke the name in *Greek. In regard of which ſtypticitie, they are all very good for the accidents of the eyes. Alume incorporat with ſome greaſe or fat, is ſingular to repreſſe the flux of bloud: very proper alſo for the red gum incident to
B children: and in the ſame ſort ſtaieth ſuch ulcers as tend to putrifaction, yea, it drieth up the breaking forth of *wheales and puſhes. With the juice of the Pomgranat, it is good for the infirmities of the eares; in which ſort it doth amend the raggedneſſe of the nailes, the hardneſſe and nodoſitie of cicatrices or skars, the excreſſence and turning up of the fleſh about the naile roots, and the kibes of the heeles. With vinegre, or calcined with the like weight of gall nuts, it is excellent for cankers and inflammations of ſuch ulcers as bee corroſive. Tempered with the juice of Beets or Coleworts, it cleanſeth the leproſie. Incorporat with two parts of ſalt, it healeth thoſe ſores which are given to eat and ſpread farther: and mingled with water, it riddeth away nits, lice, and ſuch vermine breeding in the head; in which manner it healeth burnes and ſcalds. But with pitch and the floure of Erviles, it ſcoureth away dandruffe and ſcurfe in any part of the bodie. In a
C clyſtre, Alume is ſoveraigne for the bloudie flix. It ſerveth likewiſe for the uvula in the mouth and the inflammation of the Amygdales. In one word, for all thoſe purpoſes which I have ſaid, other ſorts of Allume are good for, we muſt alwaies thinke, that the Alume brought from Melos, is the beſt and moſt effectuall. As touching other uſes beſides Phyſicke, wherein it is emploied neceſſarily, and namely in dreſſing of skins and colouring wooll, of what reckoning it is, I have ſhewed alreadie. It remaineth now to treat of all other kinds of earth reſpectively, as they ſerve in the uſe of Phyſicke.

*στυπτικὸν

*Papularum.

Chap. xvi.

Of the diverſe ſorts of earth, to wit, of Samia, Eretria, Chia, Selinuſia, Pnigitis, and Ampelitis, together with their medicinable properties.

D

FRom the Iſle Samos there be brought two kinds of earth: whereof the one is called by the Greeke's Syropicon, the other Aſter. As for the former, the commendation of it, is to bee freſh, light, and cleaving to the tongue: The other, is white, and of a more compact conſtitution: but both the one and the other, before they be uſed, ought to bee calcined and waſhed. Some there be who preferre the former: but both bee very good for thoſe that ſpit bloud. They enter into emplaſtres, which are deviſed and made for to exiccate: and they are mingled alſo with eye-ſalves.

Touching the earth Eretria, diſtinguiſhed it is likewiſe by two kinds, for ſome there is of it
E white, others of aſh colour: and this for Phyſicke is held to be the better. It is known to be good, if it be ſoft in hand; and, if upon a peece of braſſe it draw a line of purple colour. What power it hath, and how it is to bee uſed in Phyſicke, I have ſhewed alreadie in my diſcourſe of painters colours. But this is a generall rule in all kinds of earth (for I will put it off no longer) that are to bee waſhed, Firſt to let them lie well ſteeped in water, then ought the ſame to bee dried in the Sunne; which done, it ought once againe to be braied in water, and let to reſt untill they bee ſettled, that they may bee digeſted and reduced into trochiskes. But for the burning and calcining of theſe earths, it ought to bee done in certaine pots, and eftſoones followed and plied with ſhaking and ſtirring.

Among the ſorts of earth that bee medicinable, there is reckoned that which commeth from
F Chios, and the ſame is white, having the ſame effects that the earth of Samos: but our dames uſe it moſt for to embelliſh and beautifie their skin. To which purpoſe, the earth of Selenus likewiſe is employed: White this earth is as milke, and of all others, will ſooneſt reſolve in water; which if it be tempered with milke, ſerveth to whiten and refreſh the pargetting and painting of walls.

The earth called *Pignitis, is very like unto Eretria beforenamed, onely it is found in greater clots

*Some read Pnigitis.

clots or peeces, and otherwise is glutinous. The same effects it hath that Cimolia, howbeit, somwhat weaker in operation. G

There is an earth called Ampelitis, which resembleth Bitumen as neare as may be. The triall of that which is good indeed, is, if in oyle it be gentle to bee wrought as wax; and if when it is torrified, it continue still of a blacke colour. It entereth into medicines and compositions, which are made to mollifie and discusse: but principally it serveth to beautifie the eyebrowes, and to colour the haire of the head blacke.

Chap. xvii.

Sundrie sorts of chaulkes for to scoure clothes, and namely the Tuckers earth Cimolia, Sarda, and Vmbrica. Of the common chaulke: and of Tripolium. H

OF chaulkes there be many kinds: of which, Cimolia doth affourd two sorts, and both pertinent unto Physicke; the one is white, the other enclineth to the colour of Roset. Both the one and the other is of power to discusse tumors, and to stay destillations, if they bee used with vinegre. They doe keepe downe biles in the emunctories and swellings behind the ears: the foule tettars also, and other offensive pimples and pushes they represse, applied in the forme of a liniment: incorporat therewith sal-petre, sal-nitre, and put vinegre thereto, it is an excellent medicine to allay the swellings of the feet; with this charge, that this cure be done in the Sunne, and that after sixe houres, the medicine bee washed off with salt water: Put thereto the cerot Cyprinum, it is singular good for the swelling of the genetoires. This Fullers earth Cimolia is of a cooling nature, and being used in the forme of a liniment, it staieth immoderat sweats. The same taken inwardly with wine in the baine or hote house, restraineth the breaking foorth of pimples. The best of this kind, is that which commeth out of Thessalie. It is to bee found also in Lycia about Bubon. There is over and besides another use of this Cimolia or Tuckers cley, to wit, in scouring clothes. As for the chaulke Sarda, so called because it is brought out of Sardinia, it is employed onely about white clothes, for if they bee motley or pied coloured, it is of no use. Of all kinds of Cimolia it is the cheapest, and of basest account: yet that of Vmbria is of more price, and that which they call Saxum in Latine, and is our ordinarie white chaulke: This propertie it hath, that with lying in water it groweth; this is commonly bought therefore by weight, whereas the other is sold by measure. As for the foresaid earth of Vmbria, it serveth onely for to polish and give a glosse to clothes: for why should I scorne or thinke much to handle this matter also? seeing there is the expresse law or act Metella provided for Fullers, the which, *C. Flaminius* and *Lu. Aemylius*, when they were Censors, proposed unto the people for to be enacted; so carefull were our predecessors, to take order for all things. To come then to the mysterie of Fullers craft: First they wash and scoure a peece of cloth with the earth of Sardinia, then they perfume it with the smoake of brimstone, which done, they fall anone to burling of it with Cimolia; provided alwaies that it bee the right and have the native colour, for if it be sophisticat, it is soone knowne by this, that it waxeth blacke, and will chaune and cleave, if it come after sulphur: and if it be the true Cimolia, it doth refresh and give a chearefull hew to precious and rich colours, yea it setteth a certaine glosse and lustre vpon them, if they were made duskish and sad by the smoake of sulphur. But in case the clothes bē white, then the common chaulke is better to bee used presently after the brimstone: for hurtfull it is to other colours. In Greece, they use in stead of Cimolia, a certaine plastre which they have from Tymphe. Yet is there another kind of chaulke or white cley, named *Argentaria, for that it giveth a glistering silver colour unto clothes. Howbeit, one sort more there is of chaulke, which of all others is most base and least esteemed; this is that chaulke, wherewith our aunce stours in old time ordained to whiten the cirque, in token of victorie: wherewith also they use to marke the feet of those slaves which were brought over from beyond sea, to be bought and sold in the markets: such an one sometime was that *Publius*, the deviser of riming and wanton jestures upon a stage: such another was his cousin germaine, *Manilius Antiochus*, the Astrologer; yea, and *Taberius Erotes* the excellent Grammarian: whom all three, our great grandfathers saw in that manner brought over in one and the same ship. I K L M

Chap.

A

Chap. xviii.

Who they were in Rome, and of whom enfranchised, that of slaves rise to be mightie, and of exceeding wealth?

BVt what meane I to stand upon those who had learning to commend and bring them into some state of credite and honour? Have not the same forefathers of ours seene in the like plight standing within a cage, with a marke of chaulke upon their feet, and a locke about their heeles, *Chrysogonus* the slave to *Sylla*, *Amphion* to *Qu. Catulus*, *Hero* to *Lu. Lucullus*, *Demetrius* to *Pompey*, *Auge* the bondmaid to *Demetrius* (though she was thought to be the base daugh-
B ter of *Pompey*,) *Hipparchus* the slave of *Antonius*, *Menas* and *Menecrates* of *Sex. Pompeius*, and an infinit sort of others, whom I cannot reckon up? and yet they all beeing by their maisters enfranchised, became wonderfull rich by the bloudshead and goods of Romane citizens, in that licentious time of proscriptions. Well, this was the marke of slaves set out by companies in the market to be sold: and this is the opprobrious & reprochfull note, to twit those by, that in their fortunes are growne insolent. And yet we in our daies have knowne the same persons to climbe unto the place of highest honour and authoritie, insomuch as we have seene with our owne eyes the Senat (by commandement from *Agrippina* the Empresse, wife to *Claudius Cæsar*) to decree unto enfranchised slaves, the robes of Pretours, with the badges and ornaments to that dignitie belonging; yea, and such to bee sent againe as it were with the axes and knitches of rods decked with
C Lawrell, into those countries to governe, from whence they came at first poore slaves with their feet chalked and marked for the market.

Chap. xix.

Of the earth of Galata, and Clupea: Of the Baleare earth, and Ebusitana.

D OVer and above those before rehearsed, there bee other sorts of earth, having a propertie by themselves, which I have named heretofore, but in this place I am to set downe their nature and vertues also. There is a kind of earth comming out of the Isle Galata, and about Clupea in Affricke, which killeth scorpions: like as the Balearike and Ebusitane earth, is the death of other serpents.

THE

THE XXXVI. BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

¶ The Proëme.

CHAP. I.

The natures and properties of Stones: The excessive expence in columnes and buildings of Marble.

IT remaineth now to write of the nature of Stones, that is to say, the principall point of all enormious abuses, and the very height of wastfull superfluities, yea though we should keepe silence, and say nothing either of precious stones and amber, or of Chrystall and Cassidonie. For, all things els which we have handled heretofore even to this booke, may seeme in some sort to have beene made for man; but as for mountaines, Nature had framed them for her owne selfe; partly to strengthen (as it were) certaine joints within the veines and bowels of the earth; partly to tame the violence of great rivers, and to breake the force of surging waves and inundations of the sea: and in one word, by that substance and matter whereof they stand, which of all others is most hard, to restraine and keepe within bounds that unruly element of the Water. And yet notwithstanding, for our wanton pleasures and nothing else, we cut and hew, wee load and carie away those huge hils and inaccessible rockes, which otherwise to passe onely over, was thought a woonder. Our auncestors in times past reputed it a miracle, and in manner prodigious, that first *Annibal*, and afterwards the Cimbrians, surmounted the Alpes: but now, even the same mountains wee pierce through with picke-ax and mattocke, for to get out thereof a thousand sorts of marble; we cleave the capes and promontories; wee lay them open for the sea, to let it in; downe wee goe with their heads, as if wee would lay the whole world even, and make all levell. The mightie mountaines set as limits to bound the frontiers of diverse countries, and to separat one nation from another, those we transport and carrie from their native seat: ships we build of purpose for to fraught with marble: the cliffes and tops of high hils they carrie too and fro, amid the waves and billowes of the sea, and never feare the daunger of that most fell and cruell element: wherein verely we surpasse the madnesse and vanitie of those, who search as high as the clouds for a cup to drinke our water cold; and hollow the rockes that in manner touch the heaven, & all to drinke out of *yce. Now let every man thinke with himselfe what excessive prices of these stones he shall heare anone, and what monstrous peeces and masses hee seeth drawne and carried both by land and sea; let him consider withall, how much more faire and happy a life many a man should have without all this, and how many cannot chuse but die for it, whensoever they goe about to doe, or, if I should speake more truly, to suffer this enterprise: Also, for what use else, or pleasure rather, but onely that they might lie in beds and chambers of stones that forsooth are spotted, as if they never regarded how the darkenesse of the night bereaveth the one halfe of each mans life of these delights and joies. When I ponder and weigh these things in my mind, I must needs thinke great shame, and impute a great fault to our forefathers that lived long since, & blush in their behalfe. Lawes were enacted, and prohibitions published by the Censors, and those remaining upon record,

*Vt bibatur glacie, for they held Crystall to be a kind of yce.

A cord, forbidding expreſſely, That neither the kernellie part of a Bores necke, nor Dormice, and other ſmaller matters than theſe to be ſpoken of, ſhould be ſerved up to the bourd at great feaſts: but as touching the reſtraint of bringing in marble, or of ſailing into forraine parts for the ſame, there was no act or ſtatute ordained.

Chap. ii.

Who was the firſt that ſhewed Marble ſtones in columnes, or any publicke workes at Rome.

B But ſome man haply might replie againe upon mee, and ſay: What need was there of any ſuch ordinance, conſidering there was no marble in thoſe daies brought in from ſtraunge countries? Vnto whom I anſwere, That it is a meere untruth, for even our progenitours, of whom I ſpeake, ſaw well ynough how in that yeare when *M. Scaurus* was Ædile, there were no fewer than three hundred and threeſcore pillars of marble tranſported to Rome, for the front and ſtage of a Theatre, which was to continue a ſmall while, and ſcarcely to be uſed one month to an end: and yet no law there was to checke and controule him for it. But it may be inferred againe, the Lawyers winked hereat, becauſe he did all this for a publicke pleaſure to the whole citie, during the plaies exhibited by him in his Ædileſhip: marie that is it that I would have, What reaſon I pray you had they ſo to doe? By what meanes more doe abuſes and enormities creepe into a citie or ſtate, than by a publicke preſident given? for I aſſure you it was nothing elſe but ſuch ex-
C amples at the firſt that brought thoſe other things, I meane yvorie, gold, jewels, and precious ſtones, to be uſed by privat perſons, ſo commonly as they be, in their houſes, plate, & ornaments. And what have we left and reſerved at all for the very gods to have, ſince that we lay ſo much upon our ſelves? But ſay that in thoſe daies they did tollerat this exceſſe in *Scaurus*, becauſe of the paſtimes that he did exhibit to the whole citie; What, were they ſilent alſo and made no words, when the ſaid *Scaurus* cauſed the biggeſt of all thoſe columnes (yea thoſe that were fortie foot high within twain, and the ſame of Lucullean black marble) to be erected and placed in the court before his owne houſe in mount Palatine? And leaſt any man ſhould ſay, that this was done in ſecret and hucker mucker, know he, That when theſe pillars were to be carried up into the mount Palatine where his houſe ſtood, the Baliſe that had the charge of the publick ſinkes vaulted un-
D der the ground, dealt with *Scaurus* for good ſecuritie, yea, & demanded cautions and ſureties for ſatisfying of all harmes and damages that might be occaſioned by their carriage, ſo huge & heavie they were. Conſidering then this bad example, ſo prejudiciall unto all good manners, and ſo hurtfull to poſteritie, had it not been better for the citie to have cut off theſe ſuperfluities by holeſome lawes and edicts, than thus to permit ſuch huge and prowd pillars to bee carried unto a privat houſe up into the Palatine mount, even under the noſe of the gods, whoſe images were but of earth, and hard by their temples that had for their covers and louvers no better than ſuch as were made of potters cley?

Chap. iii.

E

The firſt man who had at Rome for his owne uſe, pillers of Marble brought from forraine lands.

NEither can it be alleadged for excuſe of this tolleration in *Scaurus*, that he tooke the vantage and ſpied his time when the citie of Rome was not ware of any ſuch matter toward, as having not beene acquainted beforetime with the like, and therefore hee ſtale upon them with theſe ſuperfluous pompes, as doubting nothing leſſe than ſuch new deviſes, and therfore having no time to prevent and ſtay them: for long before this, *L. Craſſus* that great Orator, who was the firſt that enriched his houſe (within the ſame Palatium) with pillers of outlandiſh marble, al-
F though they were but of the Quarrie in Hymettus hill, and neither more in number than ſix, nor carrying in length above twelve foot apeece, was reproved and reproched for this pride and vanitie by *M. Brutus*, who among other hote words and biting tearmes that paſſed enterchaungeably between them, taunted him by the name of *Venus Palatina*. Certes, conſidering how all good orders and cuſtomes otherwiſe were troden under foot, we are to preſume thus of our predeceſſors, That when they ſaw other injunctions and prohibitions as touching diverſe abuſes crept in, take

no

no effect, but daily broken, they thought it better pollicie to make no lawes at all for restraint of G
such columnes, than to have them infringed, or at leastwise, not observed when they were made: yet are we in these daies in better order than so, and I doubt not but the age and generation following will justifie and approve of, as in comparison of them: for where is there one in Rome at this day, who hath in the portaile or entrie of his house any columnes, that for bigneſſe and pride come neare to those of *Scaurus*? But before that I enter farther into this discourse of Marbles and other rich stones, it shall be good to speak somewhat of the men that have excelled in the cutting thereof, and whose workmanship hath caried the greatest price. First therefore I will goe through with the artificers themselves.

Chap. iiii. H

The first Imageurs that were in name for cutting in Marble, and in what ages they flourished.

THe first that we read renowmed for graving and carving in marble, were *Dipœnus* and *Scyllis*, both Candiots borne: who during the Empire and Monarchie of the Medes, and before that *Cyrus* began his reigne in Persia, lived in great fame; and that was in the fiftieth Olympias or thereabout. These men went together unto Sicyone (a citie, which I may truly say was for a long time the very native countrey that brought foorth the excellent workemen in all kinds of mettals and minerals.) It fortuned at the same time, that the magistrats of Sicyone, had bargained with them for certaine images of the gods to be made at the publicke charges of the I
citie; but these artificers, who had undertaken the thing, aggreeved at some wrongs offered unto them, departed in Ætolia before they had finished the said images, and so left them unperfect. Presently upon this, there ensued a great famin among the Sicyonians, by occasion that the earth failed to yeeld encrease: the citizens therefore full of sorrow and heavinesse, fearing utter desolation, had recourse unto the Oracle of *Apollo Pythius*, to know what remedie for this calamitie: and this answere was delivered unto them from the said god, That according to their petition, they should find meanes for to be eased of this plague, in case *Dipœnus* and *Scyllis* had once finished the images of the gods, which they begun. And this was performed accordingly, but with much difficultie, for they were faine to pay whatsoever they would demaund: they were glad also to pray unto them with cap in hand. And what images mought these bee? Even *Apollo*, K
Diana, *Hercules*, and *Minerva*: and this last named, was afterwards smitten and blasted with fire from heaven.

Chap. v.

Of singular peeces of worke, and excellent artificers in cutting and graving Marble, to the number of 126. Of the white Marble of Paros, and of the stately sepulchre called Mausoleum.

LOng time before *Dipœnus* and *Scyllis*, there had beene in the Island Chios one *Melas*, a cutter and graver in marble: after whom, his sonne *Micciades* succeeded, and hee likewise left a L
sonne behind him, named *Anthermus*, of the said Isle, a cunning workeman: whose two sons *Bupalus* and *Anthermus*, proved also most skilfull Imageurs. These flourished in the daies of *Hipponax* the Poët, who (as it is well knowne) lived in the 60 Olympias. Now, if a man will calculate the times, according to the genealogie of these two last named, and count backward in ascent no higher than to their great grandsire, he shall find by the ordinarie course of Nature, that the art of cutting and graving in stone, is equall in antiquitie to the originall and beginning of the Olympiades. But to prove that these two, *Bupalus* and *Anthermus*, lived in the daies of *Hipponax* abovenamed, recorded it is, That the said Poët had a passing foule and illfavored face of his own: and these Imageurs could find no better sport, than to counterfeit both him and his visage, as lively as possible might be in stone; and in a knaverie to set the same up in open place where mer- M
rie youths met in knots together, and so to propose him as a laughing stocke to the whole world. *Hipponax* could not endure this indignitie, but for to be revenged upon these companions, sharpened his style or pen against them, and so coursed them with bitter rimes and biting libels, that as some doe thinke and verely beleeve, being wearie of their lives, they knit their necks in halters,

and

A and ſo hanged themſelves. But ſurely this cannot bee true: for they lived many a faire day after; yea and wrought a number of images in the Iſlands adjacent to Chios, and namely in Delos: under which peeces of their worke, they ſubſcribed certaine arrogant verſes to this effect, That the Iſland Chios was not onely ennobled for the vines there growing which yeelded ſo good wine; but renowmed as well for *Anthermus* his two ſonnes, who made ſo many fine and curious images. The Iſlanders alſo of Iaſus have to ſhew, the image of *Diana*, their handyworke: within the Iſle of Chios, their native country, there was likewiſe another *Diana* of their making, whereof there goeth much talke, and which ſtandeth aloft in a temple there: the viſage of which *Diana* is ſo diſpoſed, that to as many as enter into the place, it ſeemeth ſad and heavie; but to them that goe forth, it appeareth pleaſant and merrie. And in verie truth, there be certain ſtatues at Rome
B of theſe mens doing, to wit, thoſe which ſtand upon the lanterne of *Apollos* temple in the mount Palatine, and almoſt generally in all thoſe chappels which *Auguſtus Cæſar* Emperour of glorious memorie, erected. Moreover, their father *Anthermus* left behind him certaine images both in Delos, and alſo in the Iſland Lesbos. As for *Dipœnus*, his workes were rife in Ambracia, Argos, and Cleone, in which citties a man ſhould not ſee a corner without them. But all the race of theſe, both father, grandſire, ſonnes, and nephewes, wrought onely in white marble digged out of the Iſland Paros: and this ſtone men began to call Lychnites, that is to ſay, the candle marble, not for the lightſome white colour which it carried (for many quarries were found afterwards of whiter and brighter marble, and namely of late daies in thoſe about Luna in Tuſcane) but as *Varro* mine authour ſaith, for that the pioners undermined the ground for that ſtone, and labou-
C red in hewing it continually by candle-light. But here commeth to my remembrance a ſtraunge thing that is recorded of the quarries in the Iſland Paros; namely, That in one quarter thereof there was a veine of marble found, which when it was cloven in twaine with wedges, ſhewed naturally within, the true image and perfect pourtraiture of a Silenus imprinted in it. Neither muſt I forget to note, that this art of graving images in ſtone, is of greater antiquitie by farre than either painters craft or founderie and caſting ſtatues; for both painters and alſo imageurs in mettall, began with *Phidias* about the 83 Olympias, which falleth out to be * three hundred and two and thirtie yeers after *Malas* the firſt graver in ſtone, of name. This *Phidias* [though otherwiſe a painter at the beginning, and a carver in yvorie] was himſelfe alſo a graver in marble; and the image of *Venus*, which now ſtandeth among the ſtately building of *Octavia*, was (as they ſay) of
D his cutting; a brave peece of worke, and in beautie ſurpaſſing. This is knowne for certaine, that *Alcamenes* the Athenian (a moſt excellent graver in ſtone) learned his skill under him; of whoſe workemanſhip there be a number of ſtatues to be ſeene at Athens within the ſacred temples: beſides, one image there is of *Venus*, moſt exquiſitly wrought, ſtanding without the walls of the citie, and is knowne by the name of *Aphrodite* * ἐν κήποις, [*id eſt*, *Venus* in the Gardens:] and as it is ſaid, *Phidias* himſelfe with his owne hands finiſhed this *Venus*: who alſo had another apprentice under him named *Agoracritus* of Paros, whome hee loved alſo for his ſweetly youth: in regard of which affection, it is ſaid, that many brave peece of his owne handyworke, hee was content ſhould paſſe under his name, which hee dedicated to the immortall memorie of *Agoracritus*. Now theſe two apprentices of his ſtrove a-vie, whether of them could make the ſtatue
E of *Venus* better? and ſo it fell out, that *Alcamenes* wan the victorie; not in regard of finer and more cunning workemanſhip, but for that the citie of Athens in favouring of their owne countreyman, gave ſentence on his ſide againſt *Agoracritus*, a ſtranger and Parian borne; who tooke this repulſe and diſgrace in ſuch diſpleaſure and indignation, that (by report) when hee ſold the ſaid *Venus* of his owne making, hee would not by any means paſſe it away, but with this condition, That it ſhould never ſtand in the citie of Athens; and withall, hee named it *Nemeſis*, [*id eſt*, Vengeance:] and therefore ſet up it was at Rhamnus, a village ſo called within the territorie of Attica; which image of *Venus*, *M. Varro* preferred before all other ſtatues whatſoever. With-
F in the foreſaid citie of Athens, and in the chappell dedicated to the honour of *Cybele* the great mother of the gods, there was another moſt excellent ſtatue or image, wrought by the hands of *Agoracritus*.

As touching *Phidias*, no man doubteth but he was the moſt excellent graver that ever was, as all nations will confeſſe who ever have heard of that ſtatue of *Iupiter* * *Olympius*, which his owne hands wrought: but that all others alſo may know (who never ſaw his work nor the ſtatues that he made)

* By this it is evident, that *Olympias* was but the ſpace of foure yeers compleat, although it be taken for five yeere.

* Some read ἐξάπολις, *id eſt*, without the citie.

* Out of yvorie: which when he had finiſhed, being demanded after what patterne hee had made the ſaid image, & how he went up into heavē for to take it forth? anſwered out of *Homer*, ἦ, καὶ κυανέῃσιν ἐπ' ὀφρύσι νεῦσε Κρονίων; Ἀμβρόσιαι δ' ἄρ' ἔχυντο, &c *Iliad. a.* whereby hee ſignified, that he had made him according as *Homer* the poet pourtraied and deſcribed him in his verſes.

made, that hee well deserved the name which went of him: I will lay abroad some small peeces as arguments of his handyworke, and those onely that may testifie his fine head and rare invention: neither will I alledge for proofe hereof, either the beautifull image of *Iupiter Olympius*, which he made at Olympia; or the stately statue of * *Minerva*, that he wrought at Athens, which carried in heigth six and twentie cubits, and was all made of yvorie and gold: but I will take the shield or targuet that the said goddesse is pourtraied with; in the embossed and swelling compasse whereof, he engraved the battaile wherein the Amazons were defeated [by *Theseus*;] within the hollow part and concavitie, hee enchased the conflict betweene the gods and the gyants; upon the shoes or pantofles that shee weareth, hee pourtraied the fight betweene the Lapithæ and the Centaures; so full compact of art was everie thing about her, and so curiously and artificially contrived. Now in the base or piedstall under the statue, the worke that was cut, hee called the Genealogie of *Pandora*: there a man might see the nativitie (as it were) of the gods, to the number of thirtie; and among them the goddesse *Victorie*, of most admirable workemanship. Moreover, artificers that are seene and skilfull in these matters, doe greatly admire the fell serpent; as also the monster *Sphinx* made in brasse, under the verie speare that *Minerva* holdeth in her hand. This may serve by the way in a word or two touching that famous and renowmed artizan *Phidias* (whome no man is able to praise and commend sufficiently) that it may be known likewise that the magnificence of his workemanship was the same still, even in small matters as well as great.

* Surnamed *Lemnia*, because the Lemnians dedicated it.

To come now to *Praxiteles*: what time hee lived, I have declared alreadie in my catalogue of Founders and Imageurs in brasse: who, albeit hee was singular in that kind, yet in marble he went beyond himselfe: his workes are to be seene at Athens, in that conspicuous street called Ceraunicum: but of all the images that ever were made (I say not by *Praxiteles* onely, but by all the workemen that were in the world) his *Venus* passeth, which hee wrought for them of Gnidos: and in truth, so exquisit and singular it was, that many a man hath embarked, taken sea, and sailed to Gnidos for no other businesse, but onely to see and behold it: hee had made two of them, and sold them both togither; the one with a vaile and arraied decently in apparell, which in that regard the men of Cos bought; for beeing put to their choice, they like honest men preferred it before the other which was naked (notwithstanding *Praxiteles* tendred them both at one and the same price) in a good mind that they carried, and having respect and regard unto their gravitie and modest carriage of themselves: that which they refused and rejected, the Gnidians bargained for, and indeed (to speake of workemanship) it was infinitely better, and there was no comparison betweene them, by the generall fame and opinion of all men: and verely king *Nicomedes* afterwards would gladly have bought it again of the Gnidians, and offered them enough; for hee promised in consideration thereof, to discharge all debts that their cittie was engaged in, which were verie great sums; but they would not give eare nor hearken unto him: content they were to live in debt and daunger still, yea and to abide and endure any forfeitures, exegents, executions, and extents whatsoever, than to part with their *Venus*. And to say a truth, good reason they had so to doe; for that one image of *Praxiteles* his making, was their chiefe credit, ennobled their cittie, and drew resort from all parts thither. This *Venus* was shrined in a little chappell by her selfe within a tabernacle; but of purpose so devised, that it might bee set open on all sides for to be seene and viewed all and whole on everie part: wherewith the goddesse her selfe (as men were verely persuaded) was well enough pleased, and shewed her contentment therein to all commers; for looke upon her as one would, amiable shee was and admirable everie way. It is reported, that a wretched fellow was enamoured of this *Venus*, and having lurked one night secretly within the chappell, behaved himselfe so and came so neare unto the image, that hee left behind him a marke of his leaud love and beastly lust; the spot of which pollution, appeared afterwards upon the bodie. In the same Gnidos there bee divers other peeces more, of marble, wrought by excellent workemen; to wit, one god *Bacchus* made by *Brixiades*, and another by *Scopas*, of whose handyworke there was *Minerva* also: yet there goeth no speech nor voice of any but onely of *Venus* abovesaid; than which, there cannot bee a greater argument to proove the excellencie of *Praxiteles* his worke; they seeme all but foils to give a lustre unto his *Venus*. Of his making there is the *Cupid* also, that *Cicero* reproched *Verres* with; the same for whose sake there is such resort and pilgrimage to Thespiæ, and which standeth now shrined within the * schooles

* *Scholis*: certaine galleries where learned mē were wont to meet, & (either walking or sitting) to discourse of learning, and to dispute. And yet there were other *Scholæ* withdrawing places in bains, where those that came gave attendance untill there were roume void by others going forth.

of

A of *Octavia*. Hee made also another *Cupid* all naked, for them of Parium, a cittie within Propontis, howbeit in the nature of a colonie governed by the Romane lawes, and owing service to their high court: comparable it was unto his *Venus* at Tenedos, as well for beautie and excellencie of workemanship, as for the like abuse and villanie done unto it; for one *Alcbidas* a Rhodian loved this *Cupid*, and (a shamefull thing to speake) defiled both himselfe and it, like a most filthie and profane villaine. Moreover, at Rome there be divers peeces of *Praxiteles* his making, to wit, *Flora*, *Triptolemus*, and *Ceres*, within the gardens of *Servilius*; the images of *Good-adventure*, and *Good-fortune* both, which are in the Capitoll; also the religious women of the order of *Bacchus*, to wit, the furious *Mænades* which also they name *Thyades*; also the holy nuns or votaries called *Caryatides*; and *Silenus*, standing among the monuments and bookes within
B the librarie of *Asinius Pollio*, togither with *Apollo* and *Neptune*. Thus much may suffice to have been spoken of *Praxiteles*.

Praxiteles left behind him a sonne named *Cephissodorus*, who was his fathers heire everie way, as well of his excellent and singular cunning as his worldly goods: of his handyworke there is to bee seene at Pergamus, a * couple of little boyes clipping, embracing, and kissing one another; a most daintie and exquisit peece of worke, and much spoken of and highly praised: a man that saw them would verely beleeve and say, they dented with their fingers into a bodie of flesh, rather than a statue of marble. At Rome there bee images that came out of his hand, to wit, *Latona* within the temple upon mount Palatine, *Venus* within the librarie or monuments of *Asinius Pollio*, *Æsculapius* and *Diana* in the temple of *Iuno*, standing within the pourpris or
C quadrant of *Octavias* galleries.

* *Symplegma*: this may be meant of two wrestlers beeing at handy-gripes.

Scopas followeth these in order of narration, but striveth to match them in praise of worthie workemanship: hee engraved and wrought the images of *Venus*, *Pothos*, and *Phaëton*, which three be honoured among the Samothracians in all ceremonious devotion, as right holy saints; likewise of *Apollo*, which standeth within mount Palatine; of the faerie goddesse *Vesta*, sitting in a chaire, accompanied with two * hand-maidens set upon the ground of each hand of her, which are to bee seene within the gardens of *Servilius*: like unto which, there be other such damosels, and ladie *Vesta*, remaining within the monuments or librarie of *Asinius* beforesaid; where also there is one *Canephoros*, to wit, a virgin bearing upon her head a flasket of holy reliques; all of *Scopas* his making. But of all that ever hee wrought, there is most account made of
D those images which are in the chappell of *Cneus Domitius*, within the cirque of *Flaminius*; to wit, *Neptune* himselfe, and dame *Thetis*, and her sonne *Achilles*; the Sea-nymphs or Meermaids also called *Nereïdes*, mounted upon Dolphins, Whales, and mightie Sea-horses called Hippocampi, and sitting upon them: moreover, the Sea-trumpetters *Tritones*, with all the quire and traine attending upon Sir *Phorcus* a Sea-god, and the mightie fishes called Prisles, besides many other monsters of the sea; all wrought by one and the same hand so curiously, that if he had sitten about the making of them all his life time and done nothing at all else, a man would have thought it worke enough, and a great deed. But moreover and besides these above rehearsed, and many more which wee are not come to the knowledge of, we have here with us at Rome the image of *Mars*, made gyant-like after the manner of a colosse, yet sitting within the temple of
E *Brutus Callaicus*, which standeth close unto the said cirque, in the way as men goe from thence to the gate Labicana. In the same place there is moreover another *Venus* naked, and wrought by the hands of *Scopas*, which seemeth to goe beyond that other *Venus* of Gnidos that *Praxiteles* made; which image alone were able (no doubt) to give name to any other cittie where it should stand, and to ennoble the place: But at Rome verely there bee so many peeces besides, and those so stately and sumptuous withall, that they obscure and darken it (as it were) in some sort. Moreover, the exceeding great affaires and the busie negotiations (whereof there is such a multitude and a world as it were in that cittie) withdraw all men from the contemplation and beholding of such things, bee they never so singular: for to say a truth, it belongeth rather to idle persons to looke and gaze upon these matters, and fitter for a place where there is little or
F no stirring, but all quiet and silent: which was the cause that no man knoweth who was the workman that made the images of *Venus*, which *Vespasian* the Emperour dedicated in the rampars and building of his temple of *Peace*: and yet if it stood any where else than at Rome, it might seeme nothing inferiour in name to the auncient works of old time. As little certaintie there is likewise of that image wrought in marble, which representeth dame *Niobe* readie to die, togither

* *Chamæteræ*.

with all her sweet children, and standeth in the temple of *Apollo* surnamed *Sosianus*, whether *Scopas* or *Praxiteles* made it: no more than father *Ianus*, which *Augustus Cæsar* brought out of Ægypt and dedicated in his owne temple, is known out of whose shop it came; notwithstanding now it be guilded all over: semblably, there standeth in the courtly pallace of *Octavia*, the image of *Cupid* holding a thunderbolt or lightning in his hand, readie to shoot; but it is a question who was the maker of him? and yet this is affirmed, That the said *Cupid* was made by the lively patterne of *Alcibiades*, who at that age was held to be the faireſt youth that the earth did beare. In the same place, and namely in the schoole or gallerie of learned men, there be many more images highly commended, and yet no man knoweth who wrought them: As for example, four that resemble Satyres; of which, one seemeth to carrie on his shoulders prince *Bacchus* arraied like a girle in a side coat or gown; another likewise beareth yong *Bacchus* in the same order, clad in the robe of his mother *Semelle*; the third maketh as though he would still the one *Bacchus* crying like a child; the fourth offereth the other a cup of drink to allay his thirst. Furthermore, there be two images in habit and forme fœminine, representing gales of wind, & these seem to make saile with their owne cloaths. As doubtfull also it is, who made the images within the railed enclosure in *Mars* field named Septa, which doe represent *Olympus*, *Pan*, *Chiron*, and *Achilles*; and yet so excellent peeces they be, that men esteeme them worthie to be kept safe, & satisfaction to be made with no lesse than their death, under whose hands and custodie they should miscarrie. But to returne againe unto *Scopas*; he had concurrents in his time, and those that thought themselves as good workemen as himselfe, to wit, *Bryaxis*, *Timotheus*, and *Leochares*, of whome I must write joyntly togither, because they joyned all foure in the graving and cutting of the stately monument Mausoleum.

This Mausoleum was the renowmed tombe or sepulchre of *Mausolus*, a petie king of Caria, which the worthie ladie *Artemisia* (sometime his queene, and now his widow) caused to be erected for the said prince her husband, who died in the second yeere of the hundredth Olympias: and verely so sumptuous a thing it was & so curiously wrought, by these artificers especially, that it is reckoned one of those matchlesse monuments which are called the * seven Wonders of the world: From North to South it carrieth in length, sixtie three foot; the two fronts East & West, make the breadth, which is not all out so large; so as the whole circuit about, may contain foure hundred and eleven foot: it is raised in heigth five and twentie cubits, and environed with six and thirtie columns: one the East side, *Scopas* did cut; *Bryaxes* chose the North end; that side which regardeth the South, fell to *Timotheus*; and *Leochares* engraved at the West end: but Queene *Artemisia* (who caused this rich sepulchre to bee made for the honour and in the memoriall of her husband late deceased) hapned her selfe to depart this life before it was fully finished: howbeit these noble artificers whome shee had set a worke, would not give over when shee was dead and gone, but followed on still and brought it to a finall end, as making this account, that it would be a glorious monument to all posteritie, both of themselves and also of their cunning: and in truth at this day, it is hard to judge by their handyworke, who did best. There was a fifth workeman also came in unto them; for above the side wall or wing of the tombe, there was a Pyramis founded, which from the verie battlements of the said wall was caried to the heigth of the building underneath it: the same grew smaller still as the worke arose higher, & from that heigth at everie degree (which in the whole were foure and twentie) was narrowed and taken in, untill at last it ended in a pointed broch: in the top whereof, there is pitched a coach with foure horses wrought curiously in marble; and this was the worke of *Pythis* for his part. * So that reckoning this charriot with the sharpe spire, the Pyramis under it unto the battlements, and the bodie of the sepulchre founded upon the firme ground, the whole worke arose to an hundred and fortie foot in heigth. But to come unto some particular workes of *Timotheus* beforesaid: his hand wrought that statue of *Diana* in marble which standeth at Rome in the chappell of *Apollo*, situat in mount Palatine: and yet the head belonging thereto, which now this image carrieth, *Aulanius Evander* set unto it in place of the former.

As touching *Menestratus*, men have in high admiration *Hercules* of his making; as also *Hecate*, which standeth in a chappell at Ephesus behind the great temple of *Diana*: the sextons or wardens of which chappell, give warning unto those that come to see it, that they looke not too long upon it for dazling and hurting their eyes, the lustre of the marble is so radiant and resplendent.

I can-

* 1. The temple of *Diana* in Ephesus.
2. The sepulchre of *Mausolus*.
3. The colosse of the Sun at Rhodes.
4. The statue of *Jupiter Olympius*.
5. The wals of Babylon.
6. The Ægyptian Pyramides.
7. The obelisk of *Semiramis*.

See *Cæl. Rhod. antiquar. lect. lib. 23. cap. 6.*

* *Dalechampius* suspecteth this place: but me thinkes a man may conceive, even by the verie wordes of *Pliny*, that upō the first *pyramis* of 25 cubits, ther was raised another spire which lessened by 24 degrees, [like as wee may see in many steeples with us] and that might carie so many foot, as beeing added to the rest, will make up the whole 140 from the ground.

A I cannot raunge in a lower degree unto these, the three Charites or Graces, which are to bee seene in the Basse court before the Citadell of Athens, the which * *Socrates* made; I meane not that *Socrates* whome I reckoned among painters, although some thinke hee was the same man. As for *Myro*, (whome I commended for a singular imageur in brasse) there is in marble of his pourtraying & engraving, an old woman drunken, which he made for them of Smyrna; a peece of worke as much esteemed and spoken of, as any other. And here I cannot but thinke of *Pollio Asinius*, who (as he was a man of a stirring spirit and quicke conceit) delighted to have his librarie and monuments to be enriched with such antiquities as these: for among them, a man shall see the Centaurs cary behind them upon their croupe, the Nymphs, which *Archesitas* wrought; the Muses named Thespiades, of *Cleomenes* his cutting; *Oceanus* and *Iuppiter*, done by the hand
B of *Eutochus*; the statues on horseback resembling women called Hippiades, which *Stephanus* wrought; the joynt-images of *Mercurie* and *Cupid*, called Hermerotes, the workmanship of *Tauriscus* (I meane not the graver, of whome I spake before, but another *Tauriscus* of Tralleis;) *Iupiter* surnamed *Xenius* or *Hospitalis*, which came out of the hands of *Pamphilus* an apprentice to *Praxiteles*: as for the brave peece of worke, to wit, *Zetus*, *Amphion*, *Dirce*, the Bull, and the bond wherewith *Dirce* was tied, all in one entier stone, which was brought from Rhodes to Rome; it was done by *Apollonius* & *Tauriscus*: these men made question of themselves, who should be their fathers? professing in plaine tearms, that *Menocrates* was taken and supposed their father, but indeed *Artemidorus* begat them, and was their father by nature: and in the same place, among other monuments, the statue of father *Bacchus* made by *Eutychides*, is much commended. More-
C over, neare unto the gallerie of *Octavia*, there is the image of *Apollo*, wrought by *Philiscus* the Rhodian; and he standeth in a chappell of his owne. *Item*, *Latona*, *Diana*, the nine Muses, and another *Apollo* naked. As for that *Apollo*, who in the same temple holdeth in his hand a harpe, *Timarchides* was the workman of it: but in the precinct or cloistre of the said galleries, and in the chappell of *Iuno*, there is the goddesse her selfe curiously made in marble; the handyworke of *Dionysius* and *Polycles*; but the image of *Venus* in the same place, *Philiscus* wrought: all other statues there, came out of *Praxiteles* his hands. Moreover, *Polycles* and *Dionysius*, the sonnes of *Timarchides*, made that *Iupiter* which is in the next chappell: the images of *Pan* and *Olympus*, wrestling togither in the same place, were the workemanship of *Heliodorus*; and this is one of the two fairest images coupled togither as wrestlers, that are knowne in the world: as for *Venus* ba-
D thing her selfe, he also made her; but *Dædalus* standing by, *Polycharmus*. As touching one peece of worke that *Lysias* made, it may appeare how highly it was esteemed, by the honourable place wherein it stood; for *Augustus Cæsar* late Emperour of happie memorie, to the honour of *Octavius* his father, dedicated it in mount Palatine over the triumphant arch there, & placed it within a shrine or tabernacle adorned with columnes: but what might this worke be? surely nothing else but a chariot with foure horses set unto it, *Apollo* and *Diana*, all of one entire peece. Within the gardens of *Servilius*, I find there is great praise of *Apollo* made by *Calamis*, that singular graver in mettall: the religious priests and propheteses also of *Phœbus*, called Pytheæ, done by *Dactylis*; and *Callisthenes* the Historiographers statue, wrought by *Amphistratus*.

Moreover, many cunning workemen there were, whose fame notwithstanding is obscured, by
E reason that albeit many singular peeces & those unmatchable, have passed through their hands, yet for that many have joyned in the workmanship togither, the number hath ben a checke and barre to the excellencie of some that went beyond their fellows, for neither is there one among them that goeth away cleare with the honor from the rest, nor many togither can well be named for one thing: and this may bee seene in the image of *Laocoon*, which remaineth within the pallace of Emperour *Titus*, a peece of worke to be preferred (no doubt) before all pictures or cast images whatsoever; and yet we know not what one artificer to praise for it. *Agesander*, *Polydorus*, and *Athenodorus*, Rhodians, most excellent workemen all, agreed by one generall consent to expresse lively in one entire stone, *Laocoon* himselfe, his children, and the woonderfull intricat winding of the serpents, clasping and knitting them about: semblably, the houses Palatine of the *Cæ-*
F *sars*, a man shall see fully furnished with right excellent statues, which *Craterus* and *Pythidorus*, *Polydectes* with *Hermolaus*, another *Pythodorus* also joined with his fellow *Arthemon*, wrought togither; as also those that *Aphrodisius Trallianus* alone himselfe, did cut. As for the temple called Pantheon, which *Agrippa* built, *Diogenes* of Athens enriched it with marble images. The virgins also going under the name of *Caryatides*, erected upon the chapters of the columnes in that

* Some take this for the wise Philosopher so famous.

temple are commended, as few like unto them for workemanſhip: like as the other images which G
be advaunced up to the verie top of the lanterne of the foreſaid temple, are thought to be excellent peeces; howbeit, for that they ſtand ſo high and cannot well bee diſcerned, leſſe ſpeech there is of them. As touching that *Hercules*, in the honour of whome the Carthaginians were woont everie yeere to ſacrifice the fleſh of mankind, as an image not regarded; for hee hath no place in any temple or chappell, neither is hee erected upon pillar, no nor ſo much as upon a baſe, but ſtandeth upon the bare ground, juſt over-againſt the entrie to thoſe galleries in Rome, called * Ad Nationes: howbeit, the workmanſhip of this *Hercules* is not to be deſpiſed. There ſtood alſo beneath, the nine Muſes called *Theſpiades* under the temple of *Felicitie*, and as *Varro* ſaith, one *Iunius Piſciculus* (by place a gentleman of Rome) was enamoured upon one of them, ſo beautifull they were made: and yet to this day, *Paſiteles* cannot looke enough thereupon, but H
hath the ſame in great admiration: who alſo wrote five bookes, compriſing all the famous and principall peeces of worke that are to be found in the world. This *Iunius* was borne in the marches and coaſts of Italie called Græcia, and togither with the townes of that tract, was made a Romane free-denizen; being himſelfe alſo a good cutter in ſtone, hee made that image of *Iupiter* in yvorie which ſtandeth in the chappell of *Metellus*, in the way which leadeth into [*Mars*] field. It happened upon a time, that beeing about the Arſenall, where certaine wild beaſts were, newly brought out of Affrick, he looked in at a grate to behold a lyon and to take out the counterfeit of him; but as hee was engraving in ſtone according to the patterne, behold, out of another cage a panther brake looſe, to no ſmall daunger of that moſt curious and painfull workeman: it is ſaid, that hee made many workes, but in particular which were of his doing, it is not I
preciſely ſet downe. Moreover, *M. Varro* doth highly magnifie *Arceſilaus*, of whoſe handyworke hee ſaith that he had a lioneſſe in marble, and certaine winged *Cupids* playing with her; of which, ſome ſeemed to hold her faſt bound, others forced her to drinke out of a horne, others againe would ſeeme to ſhoe her with their ſocks; and all this prettie anticke-worke was of one entire ſtone. The ſame *Varro* writeth, that *Coponius* made the images of the fourteene nations, which are about the galleries or theatre of *Pompeius*. I find alſo by my reading, that *Canachus* (whome I commended for a good founder or imageur in braſſe, in my catalogue of ſuch artizans) wrought in marble likewiſe and cut many faire ſtatues: neither is it meet, that *Sauros* and *Batrachus* ſhould be forgotten, who wrought the chappels that are within the cloſe or cloiſter belonging to the galleries of *Octavia*, notwithſtanding they were themſelves Lacedæmonians borne. Some alſo K
are of opini[on] that they were exceeding rich men, and that of their owne purſes they defraied the charges of building thoſe chappels, hoping to have had the honour to bee immortalized with the inſcriptions in the forefront thereof: which being denied them, yet in another place and after another ſort, they made means to eternize their name; for they deviſed in the foot or baſe of everie pillar (as it appeareth yet at this day) to cut the forme of a * frog and a lizard, to repreſent thereby their owne names. Moreover, I cannot conceale from you one prettie thing to be obſerved, and which wee all know to bee true, That in one chappell of *Iupiter*, all the pictures therein, as alſo all the ceremoniall ſervice thereto belonging, are reſpective altogither to the fœminine ſex: the which happening at firſt by meere chaunce, continued afterwards: for when the temple of *Iuno* was finiſhed, the porters who had the carriage of the images ordained there L
to ſtand, miſtooke their markes and carried thither thoſe which were appointed for the chappell of *Iupiter*; and contrariwiſe thoſe for *Iuno*, into the chappell of *Iupiter*: which beeing once done, was not altered againe, but taken for a preſage, and religiouſly ever after kept, as if the verie gods themſelves had ſo ordered and appointed it, and made a counterchaunge: which is the reaſon alſo, that in the foreſaid chappell of *Iuno*, there is that kind of ſervice which was meant for *Iupiter*.

To conclude, there have been certaine workemen that have growne to great name, by cutting and graving in ſmall peeces of marble; and namely, *Myrmecides* deviſed to inchaſe in marble, a charriot with foure horſes, and a man to drive the ſame, in ſo ſmall a roume, that a poore flie might cover all with her little wings. As for *Callicrates*, he cut in ſtone the ſimilitude and proportion of piſmiers in ſo narrow a compaſſe, that a man cannot eaſily diſcerne the feet and M
other parts of the bodie.

CHAP.

*So named, by occaſion of the ſtatues of 14 natiõs there erected, as appeareth a little after.

*For in Greek *Batrachos* is a frog, and *Sauros* a lizard.

A

Chap. VI.

When firſt began Marble ſtones to be uſed in building of privat houſes. Who began at Rome to parget and cover walls with thin leaves of Marble. In what ages each kind of Marble came into uſe and requeſt. Who invented cutting of Marble into thin plates: the deviſe and manner thereof. Of ſand proper for building.

THus fatre forth have I diſcourſed of the cutters and engravers in marble, and of thoſe excellent artificers, who have been moſt renowned. In which Treatiſe I remember well, that
B the diapred and ſpotted marble all this while was of no regard: for all the antique peeces which I have rehearſed, were made of the marble of Thaſos, of the Iſlands Cyclades, as alſo of Lesbos: and yet this enclineth to a blackiſh or blewiſh colour ſomewhat more than the reſt. As for marble ſpotted in ſundrie colours, as alſo of the ordering, workmanſhip and uſe of any kinds of marble in building, *Menander*, who in his time was moſt curious of all others in diſcuſſing all ſuch ſuperfluitie, dealt firſt therein, but ſeldome medled hee withall. Howbeit, true it is, that at length pillars of marble were taken up to bee uſed in temples, not upon any pride, braverie, or magnificence (for as yet they knew not what ſuch things meant) but for that it was thought, that they could not bee erected nor beare upon any thing ſtronger: and in that manner was begun the temple at Athens of *Iupiter Olympias*, out of which, *Sylla* brought thoſe columnes which
C ſerved for his houſe and pallace in the Capitoll. Howbeit, even in *Homers* time a difference there was made betweene ordinarie ſtone and marble: For this Poët ſaith plainely, That *Paris* caught a rap upon the mouth with a marble ſtone: And yet whenſoever hee extolleth and ſetteth out in the higheſt degree the moſt ſtately pallaces of kings and princes, hee never maketh mention of any other matter to adorne them withall, but of Braſſe, Gold, Electrum, Silver, and Yvorie, and not one word of Marble. But, as I take it, the firſt time that theſe marbles of ſundrie ſpots and colours were diſcovered, was in the quarries of the Iſlanders of Chios, by occaſion that they digged for ſtone to fortifie their cittie with walls; whereupon *M. Cicero* plaieth merrily upon them with a pleaſant conceit: for when they made ſhew unto all that came, and among the reſt to him, what wals they had built of marble, and ſeemed to take great pride in their ſumptuous and mag-
D nificent building; What adoe is here (quoth *Cicero*) I would have marvelled much more at your wall and thought you had done a greater deed, if you had built it out of the quarie of Tyburtum. Certes, if marble had beene of any name and credit in old time, painters had not beene ſo highly honored as they were, nay, had there been (thinke ye) any reckoning made of them at all?

As touching the manner of ſlitting marble into thin plates, therewith to cover and ſeele as it were the outſides of wals, I wot not well whether the invention came from Caria, or no. The pallace of *Mauſolus* king of Caria, built at Halicarnaſſus, is the auncienteſt building that I can find in any record, garniſhed, ſet out and enriched with marble of Proconneſus, notwithſtanding all the wals were reared of bricke. This prince changed his life in the ſecond yeare of the 100 Olympias, which fell out to be the 302 yeare after the foundation of the citie of Rome. As for our Romans,
E *Cornelius Nepos* writeth, That *Mamurra*, borne at Formiæ, a gentleman of Rome; and ſometime Provoſt over the Pioners, Maſons, Smiths, and Carpenters under *Cæſar* in Fraunce, was the firſt who covered all the wals throughout his houſe which he had upon mount Cœlius, with leaves of marble. Now when I ſpeake of *Mamurra*, you muſt not bee offended, and thinke that I aſcribe the invention hereof to a meane perſon; for I tell you, this is that *Mamurra*, whom the Poet *Catullus*, my countryman of Verona, ſo taunted and reviled in his verſes; this is the man, whoſe houſe beforeſaid, teſtifieth better by proofe and effect, than *Catullus* could by his Poëſie expreſſe, That he had laid upon it and gathered into it all the riches of Gallia Comata: which was as much to ſay as all France, ſave only Provance, Languedoc, Savoy, and Dauphine. And well it might be ſo, for *Cornelius Nepos* beforenamed addeth moreover and ſaith, That he was the firſt man, who cauſed
F the pillars of his houſe to be of marble, and had not one of other matter, neither were thoſe ſlight and ſlender, but ſolide and maſſie, even hewen out of the quarries either of Caryſtus or Luna. But after him, in proceſſe of time, *M. Lepidus* who was joined companion in the Conſulſhip to *Catulus*, was the firſt man known to lay the ſils, lintels & cheeks of his dores throughout his houſe with Numidian marble; & Conſull he was in the *666* yeare, reckoning from the foundation of Rome:

but

but well ſhent and rebuked hee was for his labour. And verely, this was the firſt Numidian marble, as farre as I can find by any mention or token at all, brought over to Rome; not to ſerve in pillars onely and panels in the ſeeling of walls, as *Mamurra* employed his Caryſtian marble, but in *middle workes, and in the baſeſt of all, namely, in dore ſils, lintels, and jambes. After this *Lepidus* ſome foure yeares, ſucceeded Conſull *L. Lucullus*, who, as it ſhould ſeeme by that which fell out, gave the name to Lucullean marble, for that he was ſo much delighted therein: he brought it firſt to Rome, and had a ſpeciall fancie thereto, notwithſtanding it were blacke otherwiſe: whereas all other men eſteemed better of other coloured marble, or elſe ſpotted. This marble groweth in an Iſland lying within the river Nilus, and no marbles (as many kinds as there be) tooke name of him that loved them, but it alone. But among theſe men that were given to build with marble, *M. Scaurus* was the firſt man, as I take it, that for the ſtage and forefront of his Theatre, made the walls of marble: but whether the ſame were of ſlit and ſawne marble, or laid with good ſound ſquare aſhler or no (as the temple of *Iupiter Tonans* in the Capitoll hill, is at this day built) I am not able to ſay for certaine: for as yet I doe not read or find by any ſigne, that Italie knew how to ſlit marble into leaves. But ſurely, whoſoever deviſed that invention, to ſaw marble ſtone and to ſlit it into leaves for to ſerve the turne of roiotous and waſtfull perſons, had a perillous head of his owne, and a ſhrewd. But would you know the caſt of ſlitting marble? it is done with a kind of ſand, and yet a man would thinke that it were the ſaw alone that doth the deed; for when there is an entrie once made by a very ſmall line or trace, they ſtrew the ſaid ſand aloft all the length thereof: then they ſet the ſaw to it, and by drawing it too and fro, the ſand under the teeth thereof, maketh way downwards ſtill, and ſo the ſtone, as hard as it is, they cut through in a trice: Now for this purpoſe the Æthyopian ſand hath no fellow. And to this paſſe forſooth we are come, that wee cannot have marble to ſerve our turnes, unleſſe we ſend as farre as into Æthyopia: nay, we muſt bee provided of ſand to ſlit our marble with, out of India; from whence in times paſt, during the auncient diſcipline of Rome, it was thought too much and a ſhamefull thing, to fetch rich pearles. And yet this Indian ſand is commended in a ſecond degree: but the Æthyopian is the ſofter and better ſimply; for that ſand cutteth ſmooth and cleane as it goeth, and leaves no race at all in the work; the Indian maketh not ſo even and neat plates, howbeit, they that poliſh marble, fit themſelves with this ſand when it is burnt and calcined; for if they rub their leaves and plates therwith, it will make them ſlicke and faire; for otherwiſe, if it be not calcined to a fine pouder, of it ſelfe it is churliſh and rugged: which is the fault likewiſe of the ſand that commeth from Naxos and Coptis, which commonly is called the Ægyptian ſand: for theſe ſands verely were uſed in old time to the cutting of marbles. Afterwards they met with a ſand as good as the beſt, and went no farther than to a certaine bay or creeke in the Adriaticke ſea or Venice gulfe, which being left bare when the tide is gone, they may at a low water eaſily diſcerne to have beene caſt up by the floud. And now adaies our ſawyers of marble, make no more adoe, but take the firſt ſand they come by (it makes no matter out of what river it be) this ſerves their turne well ynough; and thus they abuſe & deceive the world, although few chapmen there be that know what loſſe there is by their marble leaves ſawne in that ſort: howbeit, ſuch groſſe ſand as that, firſt maketh a wider ſlit in the main ſtone, and by conſequence ſpendeth and conſumeth more of the marble: againe, there is more worke and labour about the poliſhing therof, the ſaw and ſand beforeſaid leaveth the faces of the ſtone ſo rugged and uneven: and by this meanes the plates become ſlight and thin before they can bee employed. To conclude, the ſand from Thebais in high Ægypt, is very good to polliſh withall: like as the grit that commeth of gravellie ſtones or pumiſh ground, ſerveth very well for the ſaid purpoſe.

Chap. VII.

Of Whetſtones and Grindſtones, comming out of Naxos and Armenia: Of diverſe kinds of Marble.

FOr poliſhing of ſtatues and images made of Marble; for cutting, filing, and trimming of precious ſtones, Naxium ſerved a long time, and was commended before any other ſtone: for by this word Naxium I underſtand the whetſtones and grindſtones that come out of the Iſland Cyprus: but afterwards, thoſe which were brought from Armenia, woon the name from them, and were eſteemed better.

As

A As for the ſundrie ſorts of Marble and their colours, to diſcourſe of them in generall, were needleſſe they are ſo well and eaſily knowne: and to reckon them all in particular, were endleſſe, they be in number ſo many and infinit: for what corner of the world is there, where you ſhall not find one marble or other different from the reſt? And yet in my Coſmographie, I have alreadie written of the beſt and moſt excellent kinds of marble, as I had occaſion to ſpeake of the nations and countries where they be found. Howbeit, this would be noted, that all ſorts of marble be not found in quarries and rockes, that ſtand upon veines thereof: for much you ſhall meet with, lying ebbe in the ground, and the ſame ſcattering by peeces here and there. But the greene marble that commeth from Lacedæmon, is eſteemed moſt precious, and to bee more gay and pleaſant than all other. As touching the marbles called Auguſtum and Tiberium, they were found in Æ-
B gypt firſt after that ſort lying looſe and ſcattered, during the time that *Auguſtus* and *Tiberius* were Emperours of Rome, of whom they tooke their name. And albeit theſe marbles be flecked and ſpotted, yet they differ from the Serpentine marble called Ophites; for that the ſpeckes in Ophites, doe reſemble thoſe in a ſerpents skin, whereupon it tooke that name: whereas the other two bee diſtinguiſhed with ſpots after a diverſe ſort: for Auguſtum hath veines curled, after the manner of waves, running round as it were like whirlepooles; and Tiberium ſpreadeth rather abroad in ſtrakes, winding yet and turning after the order of whitiſh haire. Neither bee there any pillars found of the foreſaid Serpentine marble, unleſſe they bee very ſmall. And of this marble there bee two kinds: the white, which is gentle and ſoft: the blacke, which is churliſh and hard. Both of them are ſaid to eaſe the headach, and to cure the ſting of ſerpents, if they be but caried
C about one in peeces, either hanging at the neck, or otherwiſe tied to any part. Some there be who preſcribe the whiter kind to bee applied accordingly for the phrenſie and lethargie. Howbeit againſt ſerpents, there be who commend eſpecially above the reſt, that which of the colour of aſhes they commonly call* Tephria. As touching the marble of Memphis or great Cair in Ægypt, named thereupon Memphites, it is of the nature of theſe *precious ſtones, rather than of quarries. The uſe hereof is to be ground into pouder, and with vinegre to be reduced into a liniment, for to be applied unto thoſe parts that are to bee cauterized or cut: for it ſo aſtonieth and benummeth the member, that it feeleth no paine, either by the ſearing yron or the Chyrurgians lancet. The Porphyrite marble, which alſo commeth out of Ægypt, is of a red colour: of which kind, looke which hath white ſpots or ſtreakes running among, is called thereupon Leucoſtictos: And quar-
D ries there bee in Ægypt, ſtanding wholly upon this marble, which yeeld ſo ſufficient, cut and hew thereout as big and as huge peeces as you will. *Triarius Pollio*, Procuratour generall under *Claudius Cæſar*, in the province of Ægypt, brought for the Emperour certaine ſtatues of this Porphyrie, out of Ægypt: which new deviſe of his was not very well liked and accepted, for no man took example by him afterwards to doe the ſemblable. The Ægyptians alſo found in Æthyopia another kind of marble, which they call Baſaltes, reſembling yron as well in colour as hardneſſe; and thereupon it tooke the name. The greateſt peece of this marble that ever was found, *Veſpaſian Auguſtus* the Emperour dedicated in his temple of *Peace*, and it was a ſtatue reſembling the river Nilus, with ſixteene little children playing about it; wherby is ſignified the number of cubits, unto which height the ſaid river riſeth when it is at the higheſt. It is ſaid alſo, that within the temple
E of *Serapis* in Thebes, a cittie of high Ægypt, there is another ſtatue not unlike to this marble Baſaltes, and many thinke it was made for *Memnon*; & by report, every day at the ſun-riſing, ſo ſoon as the raies or beames doe beat thereupon, it ſeemeth to cracke and cleave. As for * Onyx, our auncient writers were of opinion, That it was found in thoſe daies upon the mountains of Arabia and no where elſe: yet *Sudines* ſaith, that it is gotten in Germanie. *Cornelius Nepos* affirmeth, That there was at firſt great wonder made at the drinking cups of this ſtone: and afterwards, at the feet of tables and beds, of chaires and ſtooles likewiſe thereof: howbeit, afterwards (quoth he) *L. Lentulus Spinter* ſhewed at Rome wine veſſels, as big as good barrels, ſuch as came out of the Iſle Chios with wine: but within five yeare after by his ſaying, he ſaw pillars alſo, and thoſe two and thirty foot long, all of Onyx or Chalcedonie. But in proceſſe of time this ſtone altered and varied
I much: for *Cornelius Balbus* brought foure ſmall pillars thereof, and ſhewed them in his Theatre for a ſtraunge and miraculous ſight. And in my time I have ſeen of them above thirtie, much fairer and bigger, which went to the making of a Summer parlour for pleaſure, that *Calliſtus*, one of the enfranchiſed ſlaves of *Claudius Cæſar* (a man well known for his exceeding riches and power) built for his owne ſelfe.

*Here *Plinie* remembreth himſelfe, and maketh a third kind of *Ophites*, as *Dioſcorides* did before him

**Dioſ.* ſaith it is no bigger thã a little pebble or gravel ſtone

*or rather *Onychites Caſſedonius*

CHAP.

G

Chap. VIII.

Of the stone called Alabastrites: likewise, of Lygdinus and Alabandicus.

THis Onyx stone, or Onychitis aforesaid, some name Alabastrites; whereof they use for to make hollow boxes and pots to receive sweet perfumes and ointments, because it is thought that they will keepe and preserve them excellently well, without corruption. The same being burnt and calcined, is very good for diverse plastres. This Cassidonie or Alabaster is found about Thebes in Ægypt, and Damascus in Syria: and this Alabaster is whiter than the rest. Howbeit, the best and principall simply is that which commeth out of Carmania: next to H it in goodnesse is that of India: and then the Alabaster of Syria and Asia. The least esteemed of all other, is brought out of Cappadocia, and no beautie or lustre it hath at all. In sum, come it from what countrey it will, those peeces which stand most of a yellowish colour, like honey, spotted also in the head and nothing transparent, goe for the best. And generally throughout, looke where you meet with any in colour white, or resembling horne, is rejected for naught, like as whatsoever of it is like glasse.

As touching the stones Lygdinus, found in the mountaine Taurus, many are of opinion, That they be well neare as good as the former, for to keepe odoriferous ointments: and those for bignesse and capacitie, exceed not boules and good broad platters: passing faire and white they be: and in times past were wont to be brought onely out of Arabia. Moreover, there bee I two kinds besides of marble, well esteemed both, and in great price, notwithstanding in nature they bee verie contrarie: the one is called Coraliticus, found in Asia; you shall not light upon any above two cubits long: in whitenesse they come passing neare unto yvorie, and otherwise also they have a certaine resemblance unto it. The other called Alabandicus, after the name of the countrey that yeeldeth it, is contrariwise blacke: Howbeit, there is of it to bee found growing in Miletus, but not altogether so blacke, for it enclineth or declineth rather to a purple colour. This stone of Miletus will resolve in the fire, and commonly they use to melt it for drinking cups, in manner of glasses. To come now to the Thebaicke marble, marked it is with certaine drops here and there of a golden colour: and naturally it is found growing in that part of Affricke, which confineth upon the Ægyptians, and lieth under their jurisdiction. A peculiar K propertie it hath by a secret in Nature, respective unto the eyes, to serve for to grind collyries with, that is to say, those pouders which are appropriat to the diseases of that part. But about Syrene, in the province of Thebais, there is a marble (thereupon called Syrenites) which sometime they named Pyrrhopœcilos: The kings of Ægypt in times past (as it were upon a strife and contention, one to exceed another) made of this stone certain long beames, which they called Obeliskes, and consecrated them unto the Sun, whome they honoured as a god: And indeed, some resemblance they carrie of Sunne beames, when they are made to the forme of Obeliskes, and the verie Ægyptian name implieth so much. The first that ever began to erect these Obeliskes, was *Mitres*, king of Ægypt, who held his royall seat and court in Heliopolis, the citie of the Sunne; where hee was admonished in a dreame by a vision, so to doe. And thus much may L appeare by the inscription of certaine letters engraven upon the said Obeliske: for those characters, figures, and formes that we doe see enchased in them, be the verie * letters that the Ægyptians use themselves. After him, other princes also set up more of these Obeliskes in the abovenamed citie: and namely king *Sochis* for his part, foure in number, those carying in length eight and fortie cubits apeece. And *Ramises* (in whose reigne Troy was woon by the Greekes) erected an Obeliske fortie cubits long, in the said citie: but beeing departed from thence (for that he tooke pleasure in another citie, where sometimes stood the royall pallace of king *Mneuis*) he pitched on end another Obeliske, which caried in length * a hundred foot wanting one, and on every side foure cubits square.

* *Hieroglyphicæ.*

* *Vndecenis*, by the Grammaticall Analogie, should signifie nine or eleven: but I take it, that here it is put for *undecentenis*: otherwise there was no proportion betweene the height & the bredth. Neither is it like, that this prowd prince, being removed from his former seat (where he had erected Obeliskes threescore and twelve foot high) unto another citie which he loved better, would set up a monument of nine or eleven foot, for his memoriall, as may appeare more in the next chapter. M

Chap.

A

Chap. ix.

Of three Obeliskes. The first, of Thebes in high Ægypt: the second, of great Alexandria in Ægypt: and the third, which standeth at Rome in the large Cirque or shew-place.

IT is said, that *Ramises* abovenamed, kept twentie thousand men at worke about this Obeliske: The king himselfe in person, when it should be reared on end, fearing least the engines devised for to raise it, and hold the head therof betweene heaven and earth, in the rearing should faile and not be able to beare that monstrous weight; becausehee would lay the heavier charge upon
B the artificers that were about this enterprise, upon their uttermost perill, caused his owne sonne to bee bound unto the top thereof, imagining also, that the care of the engineers who undertooke the weighing up of this Obeliske, over the young prince, for feare of hurting him, would induce them also to bee more heedfull to preserve the stone. Certes, this Obeliske was a peece of worke so admirable, that when king *Cambyses* had woon the citie where it stood, by assault, and put all within to fire and sword, having burnt all before him, as farre as to the very foundation and underpinning of the Obeliske, commaunded expressely to quench the fire: and so in a kind of reverence yet unto a masse and pile of stone, spared it, who had no regard at all of the citie besides. Other Obeliskes there bee, twaine; the one erected by king *Smarres*, the other by *Eraphius*, both without characters, and the same are eight and fortie cubites in height apeece. At Alexandria,
C king *Ptolomæus*, surnamed *Philadelphus*, set up another Obeliske eightie cubites long, the which, king *Nectabis* before him had caused to be hewed out of the quarrie, plaine without any work: but much more difficultie there was in carying it from the quarrie, and setting it upright, than there had been labour in the hewing. Some write, That *Satyrus*, a great architect or engraver, conveied it to Alexandria by the meanes of flat bottomes or sleads. But *Calixenus* saith, That one *Phænix* did the deed, who caused a trench to be cut from the river Nilus, & to be caried (with water) as far as to the place where the Obeliske lay along: then hee devised two broad barges, prepared and well fraught with small squares of the same stone, a foot every way, to the double poise or weight of the Obeliske it selfe in proportion; by reason whereof, the vessels having their full load, might come under the Obeliske just, as it lay hollow overthwart the breadth of the fosse, with either end
D resting upon the bankes: which done, hee began to discharge the vessels underneath, & to throw out the stones wherewith they were laden, by meanes whereof, as they were lightened, they arose up higher and higher to the very Obeliske, and received the charge ordained for them. Hee writeth moreover, That there were six others like to it hewed out of the same mountaine, & the workman who cut and squared them, had fiftie talents for a reward. But the foresaid Obeliske was afterwards by the abovenamed king, erected in the haven of Arsinoë, in testimonie of love to *Arsinoe*, his wife and sister both. But for that it did hurt to the ship-docke there, one *Maximus*, a governour of Ægypt under the Romanes, removed it from thence into the market place of the said citie, cutting off the top of it, intending to put a finiall thereupon guilded, which afterwards was forelet and forgotten. Two Obeliskes more there were in the haven of Alexandria, neare to the
E temple of *Cæsar*, which were hewed out of the rocke by *Mesphees*, king of Ægypt, and those were two and fortie cubits in height. But above all other difficulties, it passeth what adoe there was to transport them by sea to Rome: and verely, the ships provided of purpose therefore, were passing faire and wonderfull to see unto. As for one of the said ships which brought the former Obeliske, *Augustus Cæsar* the Emperour of famous memorie, had dedicated it unto the harbour or haven at Puteoli, there to remaine for ever as a miracle to behold, but it fortuned to bee consumed with fire: the other, wherein *C. Cæsar* had transported the second Obeliske into the river, after it had been kept safe for certain yeares together to be seene (for that it was the most admirable Carrick that ever had been knowne to flote upon the sea) *Claudius Cæsar* late Emperour of Rome, caused it to be brought to Ostia, where, for the safetie and securitie of the haven, he sunke it, and therup-
F on as a sure foundation, hee raised certaine piles or bastions, like turrets or skonces, with the sand of Puteoli: which being done, a new care and trouble there was to bring the Obeliske up the river Tiberis to Rome: Which being effected, it appeared well by that experiment, that upon the river Tiberis a vessell draweth as much water full, as Nilus. As touching the said Obeliske which *Augustus Cæsar* late Emperour erected in the great shew place or cirque at Rome, it was first cut off the

rocke

*Whom some take to be *Amasis*.

rocke by **Semneserteus*, king of Ægypt, in the time of whose raine, *Pythagoras* sojourned in Ægypt: and the same containeth a hundred and five and twentie foot and nine inches, besides the foot or base of the said stone. As for the other, which standeth in *Mars* field, being nine foot lower than it, hewed and squared it was by commaundement from *Sesostris* king of Ægypt. In the characters engraven in both of them, a man may see all the Philosophie and religion of the Ægyptians, for they containe the interpretation of Nature. G

Chap. X.

Of that Obeliske at Rome which standeth in Mars field, and serveth for a Gnomon. H

And as for that Obeliske which standeth in *Mars* field, *Augustus Cæsar* the Emperour devised a wonderfull meanes that it should serve to marke out the noonetide, with the length of day and night, according to the shaddowes that the Sunne doth yeeld by it: for he placed underneath at the foot of the said Obeliske, according to the bignesse and length therof, a pavement of broad stone; wherein a man might know the sixt houre or the mid day at Rome, when the shaddow was equall to the Obeliske; and how by little and little, according to certaine rules (which are lines of brasse, inlaid within the said stone) the daies doe encrease or decrease: A thing no doubt worth the knowledge, and an invention proceeding from a pregnant wit. *Manlius*, a renowned Mathematician and Astronomer, put unto the top of the said Obeliske a guilded ball, in such sort, that all the shaddow which it gave fell upon the Obelisk, and this cast other shaddows more or lesse, different from the head or top of the Obeliske aforesaid. The reason whereof (they say) was understood from the sundrie shaddows that a mans head doth yeeld. But surely for these thirtie yeares past or thereabout, the use of this quadrant aforesaid hath not been found true: and what the reason thereof should be, I know not, whether the course of the Sunne in it selfe bee not the same that heretofore, or be altered by some disposition of the heavens; or whether the whole earth be somewhat removed from the true centre in the middest of the world (which I heare say is found to be so in other places;) or that it proceed by occasion of the earthquakes which have shaken the citie of Rome, and so haply wrested the Gnomon from the old place; or last of all, whether by reason of many innundations of Tiberis, this huge and weightie Obeliske hath setled & sunke downe lower (and yet it is said that the foundation was laid as deep under ground, as the Obelisk it selfe is above the ground.) I K

Chap. XI.

The third Obeliske at Rome in the Vaticane.

There is a third Obeliske at Rome, standing within the cirque or shew place of the two emperours, *C. Caligula* and *Nero*: and this is the onely Obeliske knowne to have beene broken in the rearing. This was hewen and erected in Ægypt by *Nuncoreus*, the sonne of *Sesostris*: which *Nuncoreus* caused another to bee set up of a hundred cubits in height, and consecrated it unto the Sunne, after he had recovered his sight upon blindnesse, according as he was advertised by the Oracle, which remaineth at this day. L

Chap. XII.

Of the Ægyptian Pyramides, and of Sphinx.

Having thus discoursed of the Obelisks, it were good to say somewhat of the Pyramides also in Ægypt: a thing I assure you that bewraieth the foolish vaine-glorie of the kings in that countrey, who abounding in wealth, could not tell what to doe with their money, but spent it in such idle and needlesse vanities. And verely most writers doe report, That the principall motives which induced them to build these Pyramides, was partly to keepe the common people from idlenesse, partly also because they would not have much treasure lying by them, least either their heires apparent, or other ambitious persons who aspired to be highest, should take occasion thereby to play false and practise treasons. Certes, a man may observe the great follies of those princes herein, That they began many of these Pyramides, and left them unfinished; as M

may

A may appeare by the tokens remaining thereof. One of them there is within the territorie under the juriſdiction of *Arſinoë*; two within the province that lieth to the government of Memphis, not farre from the Labyrinth, whereof alſo I purpoſe to ſpeake: there are other twaine likewiſe in the place where ſometimes was the lake Mœris, which was nothing elſe but a mightie huge fort, entrenched by mans hand in manner of a mote or poole: but the Ægyptians (among many other memorable and wonderfull workes wrought by their princes) ſpeake much of theſe two * Pyramides, the mightie ſpires and ſteeples whereof (by their ſaying) doe ariſe out of the verie water. As for the other three which are ſo famous throughout the world (as indeed they are notable markes to be kenned afarre off by ſailers, and directions for their courſe) theſe are ſituat in the marches of Affricke upon a craggie and barrein mountaine, betweene the cittie Memphis
B and a certaine Iſland or diviſion of Nilus which (as I have ſaid before) was called Delta, within foure miles of Nilus and ſix from Memphis, where there ſtandeth a village hard unto it named Buſiris, wherein there bee certaine fellowes that ordinarily uſe to climbe up to the top of them. Over-againſt the ſaid Pyramides there is a monſtrous rocke called Sphinx, much more admirable than the Pyramides, and forſooth the paiſants that inhabit the countrey eſteemed it no leſſe than ſome divine power and god of the fields and forreſts: within it, the opinion goeth, that the bodie of king *Amaſis* was intombed; & they would beare us in hand, that the rocke was brought thither, all and whole as it is: but ſurely it is a meere crag growing naturally out of the ground; howbeit wrought alſo with mans hand, poliſhed and verie ſmooth and ſlipperie. The compaſſe of this rocks head (reſembling thus a monſter) taken about the front, or as it were the forehead,
C containeth one hundred and two foot, the length or heigth 143 foot; the heigth from the bellie to the top of the crowne in the head, ariſeth to threeſcore and two foot. But of all theſe Pyramides, the biggeſt doth conſiſt of the ſtone hewed out of the Arabicke quarries: it is ſaid, that in the building of it there were 366000 men kept at worke twentie yeeres togither: and all three were in making threeſcore and eighteene yeeres and foure monthis. The writers who have made mention of theſe Pyramides, were *Herodotus*, *Euhemerus*, *Duris* the Samian, *Ariſtagoras*, *Dionyſius*, *Artemidorus*, *Alexander Polyhiſtor*, *Butorides*, *Antiſthenes*, *Demetrius*, *Demoteles*, & *Apion*: but (as many as have written hereof) yet a man cannot know certainly and ſay, This Pyramis was built by this king: a moſt juſt puniſhment, that the name and authours of ſo monſtrous vanitie, ſhould bee buried in perpetuall oblivion: but ſome of theſe Hiſtoriographers have reported,
D That there were a thouſand and eight hundred talents laid out onely for radiſh, garlicke, and onions, during the building of theſe Pyramides. The largeſt of them taketh up eight acres of ground at the foot, foure ſquare it is made, and everie face or ſide thereof equall, containing from angle to angle eight hundred foureſcore and three foot, and at the top five and twentie: the ſecond made likewiſe foure cornered, is on everie ſide even, and comprehendeth from corner to corner ſeven hundred thirtie and ſeven foot: the third is leſſe than the former two, but farre more beautifull to behold, built of Æthiopian ſtones; it carrieth at the foot in ech face betweene foure angles, three hundred threeſcore and three foot. And yet of all theſe huge monuments, there remaine no tokens of any houſes built, no apparence of frames and engins requiſite for ſuch monſtrous buildings: a man ſhall find all about them farre and neare, faire ſand and ſmall red
E gravell, much like unto Lentill ſeed, ſuch as is to be found in the moſt part of Affricke. A man ſeeing all ſo cleane and even, would wonder at them how they came thither: but the greateſt difficultie mooving queſtion and marveile is this, What meanes were uſed to carrie ſo high as well ſuch mightie maſſes of hewen ſquared ſtone, as the filling, rubbiſh, and mortar that went thereto? for ſome are of opinion, that there were deviſed mounts of ſalt and nitre heaped up togither higher and higher as the worke aroſe and was brought up; which beeing finiſhed, were demoliſhed, and ſo waſhed away by the inundation of the river Nilus: others thinke, that there were bridges reared with bricks made of clay, which after the worke was brought to an end, were diſtributed abroad and emploied in building of privat houſes; for they hold, that Nilus could never reach thither, lying as it doth ſo low under them when it is at the higheſt, for to waſh away the
F heaps and mounts aboveſaid. Within the greateſt Pyramis there is a pit 86 cubits deepe, & thither (ſome thinke) the river was let in. As touching the heigth of theſe Pyramides and ſuch like, how the meaſure ſhould be taken, *Thales Mileſius* deviſed the means; namely, by taking the juſt length of a ſhadow, when it is meet and even with the bodie that caſteth it. Theſe were the wonderfull Pyramides of Ægypt, wherof the world ſpeaketh ſo much. But to conclude this argument,

* *Herodotus* ſaith, they were 250 foot high above the water, and as many deepe under.

That no man ſhould need to marveile any more of theſe huge workes that kings have built, let him know thus much, that one of them, the leaſt (I muſt needs ſay) but the faireſt and moſt commended for workemanſhip, was built at the coſt and charges of one *Rhodope*, a verie ſtrumper. This *Rhodope* was a bondſlave togither with *Æſope* a Philoſopher in his kind, and writer of morall fables, with whome ſhee ſerved under one maſter in the ſame houſe: the greater woonder it is therefore and more miraculous than all I have ſaid before, that ever ſhee ſhould be able to get ſuch wealth by playing the harlot. Over and above the Pyramides aboveſaid, a great name there is of a tower built by one of the kings of Ægypt within the Iſland Pharos, and it keepeth and commaundeth the haven of Alexandria, which tower (they ſay) coſt eight hundred talents the building. And here, becauſe I would omit nothing worth the writing, I cannot but note the ſingular magnanimitie of king *Ptolome*, who permitted *Soſtratus* of Gnidos (the maſter workeman and architect) to grave his owne name in this building. The uſe of this watch-tower, is to ſhew light as a lanthorne, and give direction in the night ſeaſon to ſhips, for to enter the haven, and where they ſhall avoid barrs and ſhelves: like to which there bee many beacons burning to the ſame purpoſe, and namely at Puteoli and Ravenna. This is the daunger onely, leaſt when many lights in this lanterne meet togither, they ſhould be taken for a ſtar in the skie; for that afar off ſuch lights appeare unto ſailers in manner of a ſtar. This enginer or maſter workman before ſaid, was the firſt man that is reported to have made the pendant gallerie & walking-place at Gnidos.

Chap. xiii.

Of the Labyrinths in Ægypt, Lemnos, and Italie.

SInce wee have finiſhed our Obeliskes and Pyramides, let us enter alſo into the Labyrinths; which we may truly ſay, are the moſt monſtrous works that ever were deviſed by the hand of man: neither are they incredible and fabulous, as peradventure it may be ſuppoſed; for one of them remaineth to be ſeen at this day within the juriſdiction of Heracleopolis, the firſt that ever was made, to wit, three thouſand and ſix hundred yeers agoe, by a king named *Peteſuccas*, or as ſome thinke *Tithoes*: and yet *Herodotus* ſaith, it was the whole worke of many KK. one after another, and that *Pſammerichus* was the laſt that put his hand to it and made an end thereof. The reaſon that mooved theſe princes to make this Labyrinth, is not reſolved by writers, but divers cauſes are by them alledged: *Demoteles* ſaith, that this Labyrinth was the roiall pallace and ſeat of king *Motherudes*: *Lycias* affirmeth it to be the ſepulchre of king *Mœris*: the greater part are of opinion, that it was an ædifice dedicated expreſſely and conſecrated unto the Sun, which in my conceit commeth neareſt to the truth. Certes, there is no doubt made that *Dædalus* tooke from hence the patterne and platforme of his Labyrinth which he made in Crete; but ſurely he expreſſed not above the hundredth part thereof, chuſing onely that corner of the Labyrinth which containeth a number of waies and paſſages, meeting and encountring one another, winding and turning in and out everie way, after ſo intricat manner and ſo inexplicable, that when a man is once in, hee cannot poſſibly get out againe: neither muſt wee thinke that theſe turnings and returnings were after the manner of mazes which are drawne upon the pavement and plain floore of a field, ſuch as we commonly ſee ſerve to make ſport and paſtime among boies, that is to ſay, which within a little compaſſe and round border comprehend many miles; but here were many dores contrived, which might trouble and confound the memorie, for ſeeing ſuch varietie of entries, allies, and waies, ſome croſſed and encountred, others flanked on either hand, a man wandred ſtill and knew not whether he went forward or backward, nor in truth where he was. And this Labyrinth in Crete is counted the ſecond to that of Ægypt: the third is in the Iſle Lemnos: the fourth in Italie: made they were all of poliſhed ſtone, & beſides vaulted over head with arches. As for the Labyrinth in Ægypt, the entrie thereof (whereat I much marveile) was made with columns of ſtone, and all the reſt ſtuffed ſo ſubſtantially and after ſuch a wonderfull manner couched and laid by art of maſonrie, that impoſſible it was they ſhould in many hundred yeers bee disjoynted and diſſolved, notwithſtanding that the inhabitants of Heracleopolis did what they could to the contrarie; who for a ſpight that they bare unto the whole worke, annoied and empeached it wonderfully. To deſcribe the ſite and plot thereof, to unfold the architecture of the whole, and to rehearſe everie particular thereof, it is not poſſible; for divided the building is into ſixteene regions or quarters, according to the ſixteene ſeverall governments in Ægypt (which they

A they call Nomos) and within the ſame are contained certain vaſt and ſtately pallaces which beare the names of the ſaid juriſdictions, and be anſwerable to them: beſides, within the ſame precinct are the temples of all the Ægyptian gods: over and above, fifteen little chappels or ſhrines, everie one encloſing a *Nemeſis*, to which goddeſſe they bee all dedicated: to ſay nothing of many Pyramides fortie ells in heigth apeece, and everie of them having ſix walls at the foot, in ſuch ſort, that before a man can come to the Labyrinth indeed which is ſo intricat & inexplicable, and wherein (as I ſaid before) he ſhall be ſure to looſe himſelfe, he may make account to be wearie and tired out: for yet he is to paſſe over certaine lofts, galleries, and garrets, all of them ſo high that he muſt climbe ſtaires of nintie ſteps apeece ere hee can land at them; within the which, a number of columns and ſtatues there be, all of porphyrit or red marble, a world of images and ſtatues
B repreſenting as well gods as men, beſides an infinit ſort of other peeces pourtraied in monſtrous and ugly ſhapes, and there erected. What ſhould I ſpeake of other roumes and lodgings which are framed and ſituat in ſuch manner, that no ſooner are the dores and gates opened which lead unto them, but a man ſhall heare fearefull cracks of terrible thunder: furthermore, the paſſages from place to place are for the moſt part ſo conveyed, that they be as darke as pitch, ſo as there is no going through them without fire light: and ſtill be we ſhort of the Labyrinth, for without the maine wall therof, there be two other mightie upright walls or wings, ſuch as in building they call Ptera; and when you are paſſed them, you meet with more ſhrowds under the ground, in manner of caves and countermines vaulted over head, and as darke as dungeons. Moreover, it is ſaid, that about 600 yeers before the time of K. *Alexander* the Great, one *Curcamnos* (an eunuch or groome
C of king *Nectabis* chamber) made ſome ſmall reparations here about this Labyrinth, and never any but hee would goe about ſuch a peece of worke. It is reported alſo, that while the maine arches and vaults were in rearing (and thoſe were made all of foure ſquare aſhler ſtone) the place ſhone all about and gave light with the beams and plancher made of the Ægyptian Acacia ſodden in oile. And thus much may ſerve ſufficiently for the Labyrinths of Ægypt and Candie.

The Labyrinth in Lemnos was much like to them, onely in this reſpect more admirable, for that it had a hundred and fortie columns of marble more than the other, all wrought round by turners craft, but with ſuch dexteritie, that a verie child was able to weld the wheele that turned them, the pins and poles whereby they hung were ſo artificially poiſed. The maſter deviſers and
D architects of this Labyrinth, were *Zmilus*, *Rholus*, and a third unto them, one *Theodorus* who was borne in the ſame Iſland. Of this, there remaine ſome reliques to be ſeene at this day; whereas a man ſhall not find one ſmall remnant either of the Italian or Candian Labyrinths: for meet it is that I ſhould write ſomewhat alſo of our Labyrinth heere in Italie, which *Porſena* K. of Tuſcane cauſed to be made for his own ſepulchre; and the rather, becauſe you may know that forrein kings were not ſo vain in expences, but our princes in Italie ſurpaſſed them in vanitie: but for that there goe ſo many tales and fables of it which are incredible, I thinke it good in the deſcription therof to uſe the verie words of my author *M. Varro*: King *Porſena* (quoth he) was interred under the cittie Cluſinum in Tuſcane, in which verie place he left a ſumptuous monument or tombe built all of ſquare ſtone; thirtie foot it caried in breadth on everie ſide, and fiftie in heigth; within the baſe or foot whereof (which likewiſe was foure ſquare) hee made a Labyrinth ſo intricat, that if a
E man were entred into it without a bottom or clue of thread in his hand, and leaving the one end therof faſtened to the entrie or dore, it was impoſſible that ever he ſhould find the way out again. Vpon this quadrant there ſtood five Pyramides or ſteeples, foure at the foure corners, and one in the mids, which at the foot or foundation caried 75 foot everie way in bredth, & were brought up to the heigth of 150: theſe grew ſharpe ſpired toward the top, but in the verie head ſo contrived, that they met all in one great roundle of braſſe which raught from one to the other, and covered them all in manner of a cap, and the ſame riſing up in the mids with a creſt moſt ſtately: from this cover there hung round about at little chains, a number of bells or cymbals, which being ſhaken with the wind, made a jangling noiſe that mought be heard a great way off, much like unto that ring of bels which was deviſed in times paſt over the temple of *Iupiter* at Dodona: and
F yet are we not come to an end of this building mounted aloft in the aire, for this cover over head ſerved but for a foundation of foure other Pyramides, and everie one of them aroſe a hundred foot high above the other worke: upon the tops whereof there was yet one terrace more to ſuſtaine five Pyramides, and thoſe ſhot up to ſuch a monſtrous heigth, that *Varro* was aſhamed to report it: but if wee may give credit to the tales that goe currant in Tuſcane, it was equall to the

* Which was 250 foot: so that the whole was 500 foot.

whole *building underneath. O the outragious madnesse of a foolish prince, seeking thus in a vainglorious mind to be immortalized by a superfluous expence which could bring no good at all to any creature, but contrariwise weakned the state of his kingdome! And when all was done, the artificer that enterprised and finished the worke, went away with the greater part of the praise and glorie. G

Chap. xiiii.

Of a garden made upon Terraces. Of a cittie standing all upon vaults and arches from the ground. And of the temple of Diana in Ephesus.

H

WEe read moreover of gardens made in the aire; nay it is recorded, that a whole cittie (and namely Thebes in Ægypt) was built so hollow, that the Ægyptian KK. were wont to lead whole armies of men under the houses of the said cittie, in such sort as none of the inhabitants could beware thereof, yea and sodainly appeare from under the ground: a marveilous matter I assure you, but much more woonderfull in case the river Nilus also ran thorow the mids of the said towne. But surely of this opinion am I, that if this were true, *Homer* no doubt would have written of it, considering he hath spoken so much in the praise and commendation of this cittie, and especially of the * hundred gates that it had. But to speake of a stately and magnificent worke indeed, the temple of *Diana* in Ephesus is admirable, which at the common charges of all the princes in Asia was * two hundred and twentie yeers a building. First and foremost, they chose a marrish ground to set it upon, because it might not be subject to the danger of earthquakes, or feare the chinkes and opening of the ground: againe, to the end that so mightie and huge building of stone-worke should stand upon a sure and firme foundation (notwithstanding the nature of the soile given to be slipperie and unsteadfast) they laid the first couch and course of the ground-worke with charcole well rammed in manner of a pavement, and upon it a bed of wooll-packs: this temple carried in length throughout, four hundred twentie and five foot, in breadth two hundred and twentie: in it were a hundred and seven & twentie pillars, made by so many KK. and everie one of them threescore foot high; of which, six and thirtie were curiously wrought and engraven, whereof one was the handyworke of *Scopas*: *Chersiphron* the famous architect was the chiefe deviser or master of the works, and who undertooke the * rearing thereof: the greatest wonder belonging thereto was this, How those huge chapters of pillars, together with their frizes and architraves, being brought up and raised so high, should be fitted to the sockets of their shafts: but as it is said, he compassed this enterprise and brought it to effect, by the means of certaine bags or sacks filled with sand; for of these he made a soft bed as it were raised above the heads of the pillars, upon which bed rested the chapters, and ever as he emptied the nethermost, the foresaid chapters settled downeward by little and little, and so at his pleasure hee might place them where they should stand: but the greatest difficultie in this kind of worke, was about the verie frontispice and maine lintle-tree which lay over the jambes or cheeks of the great dore of the said temple; for so huge and mightie it was, that he could not weld it to lay and bestow the same as it ought, for when hee had done what hee could, it was not to his mind, nor couched and settled in the right place: whereupon the workman *Chersiphron* was much perplexed in his mind, and so wearie of his life, that he purposed to make himselfe away: but as he lay in bed in the night season, and fell asleepe all wearie upon these dumpish and desperat cogitations, the goddesse *Diana* (in whose honour this temple was framed, and now at the point to be reared) appeared sensibly unto him in person, willing him to be of good cheare and resolve to live still, assuring him that shee her selfe had laid the said stone of the frontispice, and couched it accordingly: which appeared true indeed the morrow morning, for it seemed that the verie weight thereof had caused it to settle just into the place, and made a joynt as *Chersiphron* would have wished it. As touching all the other singularities belonging to this temple, and namely the gorgeous ornaments that set it out, they would require many volumes to discipher and particularize upon them; and when all is done, little or nothing pertinent they are to the illustration of Natures worke, which is the principall marke that I aime at.

* Θώβαι ἑκατόμπυλοι.

*In the fortith chap. of the 16 book, he saith 400.

* After the frame was made.

I K L M

Chap.

A

Chap. xv.

Of the proud temple in Cyzicum. The fugitive stone. The eccho which resoundeth seven times to one crie. Of a great building without pin or naile of yron. The sumptuous and admirable ædifices in Rome.

THere is at this day a temple standing at Cyzicum, wherin the mason had bestowed threads of gold in all the joynts under everie stone throughout, and those were all faire polished: within this temple, prince *Cyzicus* (who caused it to be built) minded to dedicat the image of *Iupiter* in yvorie, and of *Apollo* in marble, setting a crowne upon his head. Certes, these joynts
B thus enterlaced with most fine and daintie threads, gave a woonderfull grace and beautie to the whole Church, by sending and breathing (as it were) from them certaine raies, which by reverberation cause all the images therein to have a glittering lustre: in such sort, that over and above the devise and wittie invention of the workeman, the verie matter also (although it be close couched and hidden betweene each stone) commendeth the price and riches of the worke.

Within the said towne there is a stone called the Fugitive or Runnaway: The brave knights of Greece called Argonauts, who accompanied prince *Iason* in his voiage for the golden fleece, after they had used it for an anchar, left it there: but for that this stone was readie many times to run away and be gone out of their Prytaneum (for so they call their publicke hall) they foudred it fast with lead. In the same cittie, neare unto that gate which is called Thracia, there stand seven
C turrets, which doe multiplie a voice, and send backe many againe for one: this miraculous rebounding of the voice, the Greekes have a prettie name for, and call it Echo. True it is, that this repercussion and redoubling of the voice, proceedeth otherwhiles from the nature of the place, and most of all in vallies lying betweene hills; but at Cyzicum it commeth by fortune, and no such reason can bee given thereof. At Olympia the like is wrought by art, for there is a gallerie there made of purpose, which after a woonderfull manner delivereth the same voice which it receiveth, seven times backe, whereupon they call it Heptaphonon. Moreover, in Cyzicum there is a faire and large building, which (because they keepe courts and sit in councell there) is named Buleuterion: the same is built in such sort, as there goeth not one pin or naile to all the carpen-
D trie thereof: and the stories are so laid, that a man may take away the beams and rafters without any prop or shoare to support them, yea and bestow them againe fast enough without laces to bind them. After which manner, the moderne bridge at Rome was so framed over the river Tybetis; and a matter of religion and conscience was made thereof, to maintaine it so, in remembrance of the difficultie in taking it a peeces and breaking it downe, at what time as *Horatius Cocles* made the place good against the power of K. *Porsena*.

And now since the coherence of matters hath brought me to Rome, me thinks I should not doe amisse to proceed unto the miraculous buildings of this our cittie, to shew the docilitie of our people, and what proofe there is of their progresse in all things, during the space of nine hundred yeers; that it may appeare how not onely in magnanimitie and prowesse they have conquered the world, but in magnificence also of stately and sumptuous buildings surmounted all
E nations of the earth: and as a man shall find this singularitie and excellencie of theirs, in the particular survey of everie one of their stately and woonderfull ædifices as they have been reared from time to time, so if hee put them all togither and take a generall view of them at once, hee shall conceive no otherwise of their greatnesse, than of another world assembled (as it were) to make shew in one place: for if I should reckon among great workes (as needs I must) the grand cirque or shew-place built by *Cæsar* Dictator, which tooke up of ground three stadia or furlongs in length, and one in breadth, containing also in ædifices and roums foure acres or jugera, wherin were bestowed to sit at ease and behold the sights with pleasure, two hundred and threescore thousand persons: what tearme should I give, but of Stately and Magnificent buildings, either
M unto the royall pallace of *Paulus Æmilius*, enriched with goodly pillars of Sinadian marble out
F of Phrygia, most admirable to behold; or to the sumptuous Forum of *Augustus Cæsar* late Emperour, or yet the temple of *Peace* built by the Emperour *Vespasianus Augustus*, now living, the goodliest and fairest buildings that ever were? what should I speake of the temple * *Pantheon*, made by *Agrippa* to the honour of *Iupiter Revenger*? as also how before this time, *Valerius* of Ostia the architect or enginer, made a roufe over the great theatre at Rome against the time that

* The round church of *Nostre*, dame now at Rome.

Libo exhibited his ſolemnitie of games and plaies to the people? Wonder wee at the diſpences G
that KK. were at about their Pyramides? and wonder wee not rather that *Iulius Cæſar* Dictatour
diſburſed for the purchaſe of that plot of ground only and no more wherein he built his Forum,
*H-S *millies.* a * hundred millions of ſeſterces? And if there bee any here that take pleaſure to hoord up mo-
ney, and be loth to part with a penie, and love not to be at charges and lay forth ought, will they
not make a wonder when they heare that *P. Clodius* (whome *Milo* ſlew) paid for the houſe wher-
in he dwelt, fourteen millions and eight hundred thouſand ſeſterces? ſurely if they do not, I do;
and take it to be as fooliſh an expence and as wonderfull, as that of the KK. in Ægypt above na-
med: Likewiſe when I conſider the debts that *Milo* himſelfe ought, and which amounted to
ſeventie millions of ſeſterces, I count it one of the moſt prodigious enormities that a mans cor-
rupt mind can bring forth. But old men marveiled even in thoſe daies at the mightie thick ram- H
piers that K. *Tarquinius Priſcus* cauſed to bee made, the huge foundations alſo of the Capitoll
that he laid, the vaulted ſinks alſo and draughts (to ſpeake of a peece of worke the greateſt of all
others) which he deviſed, by undermining and cutting through the ſeven hills wherupon Rome
is ſeated, and making the citie hanging as it were in the aire between heaven and earth, like unto
Thebes in Ægypt, whereof erewhile I made mention; ſo as a man might paſſe under the ſtreets
and houſes with botes. But how would they be aſtonied now, to ſee how *M. Agrippa* in his Ædile-
ſhip, after he had been Conſull, cauſed ſeven rivers to meet togither under the citie in one main
channell, and to run with ſuch a ſwift ſtreame and current, that they take all afore them whatſoe-
ver is in the way, and carrie it downe into Tyber: and being otherwhiles encreaſed with ſodaine
ſhowres and land-fluds, they ſhake the paving under them, they ſlanck the ſides of the wals about I
them: ſometimes alſo they receive the Tyber water into them when he riſeth extraordinarily,
ſo as a man ſhall perceive the ſtreame of two contrarie waters affront and charge one another
with great force and violence within under the ground: And yet for all this, theſe water-workes
aforeſaid yeeld not a jot, but abide firme and faſt, without any ſenſible decay occaſioned thereby.
Moreover, theſe ſtreams carrie downe eftſoons huge and heavie peeces of ſtones within them,
mightie loads are drawn over them continually, yet theſe arched conduits neither ſettle & ſtoup
under the one, nor be once ſhaken with the other; downe many a houſe falleth of it ſelfe, and the
ruins beat againſt theſe vaults: to ſay nothing of thoſe that tumble upon them with the violent
force of skarefires, ne yet of the terrible earthquakes which ſhake the whole earth about them:
yet for all theſe injuries, they have continued ſince *Tarquinius Priſcus*, almoſt eight hundred K
yeers, inexpugnable. And here by the way I will not conceale from you a memorable example
which is come into my mind by occaſion of this diſcourſe, and the rather, for that even the beſt
and moſt renowmed Chroniclers who have taken upon them to pen our Romane hiſtorie, have
paſſed it over in ſilence: When this K. *Tarquinius* ſurnamed *Priſcus*, cauſed theſe vaults under
the ground to be made, and forced the common people to labour hard thereat with their owne
hands, it happened that many a good Roman citizen being now over-toiled in this kind of worke
(which whether it were more daungerous or tedious, was hard to ſay) choſe rather to kill them-
ſelves for to be rid of this irkeſome and painfull life; in ſuch ſort, that daily there were people miſ-
ſing, and their bodies found after they were periſhed. This king therefore, to prevent farther miſ-
chiefe, and to provide that his workes begun might bee brought to an end, deviſed a remedie L
* At Rome. which never was invented before, nor practiſed * afterwards, and that was this, That the bodies
of as many as were thus found dead, ſhould be hung upon jebbets, expoſed not only to the view
of all their fellow cittizens to bee deſpiſed as curſed creatures, but alſo to the wild and ravenous
foules of the aire to be torne and devoured. The Romans (as they are the only nation under hea-
ven impatient of any diſhonor) ſeeing this object preſented before their eyes, were mightily aba-
ſhed; and as this mind of theirs had gained them victorie many a time in deſperat battailes, ſo at
this preſent alſo it guided and directed them: and beeing (as they were) diſmaied at this diſgrace,
they made account no leſſe to be aſhamed of ſuch an ignominie after death, than they now blu-
ſhed thereat in their life. But to returne againe unto theſe ſinks and water-works of ours under the M
ground: K. *Tarquine* above-named, cauſed them to be made ſo large and of ſuch capacitie, that
a good wain load of hay might paſſe within them. But all that ever I have ſaid alreadie is nothing
or at leaſtwiſe verie little, in compariſon of one wonderfull thing which I am content to ſet down
before I come to our new and moderne buildings: In that yeere when *M. Lepidus* and *Q. Ca-
tulus* were Conſuls at Rome (according as I find all the beſt writers to agree) there was not a fairer

and

A and more ſumptuous houſe in all Rome, than that wherein *Lepidus* himſelfe dwelt: but verely before five and thirtie yeares were come and gone, there were a hundred houſes and more braver than it by many degrees. Now, if a man liſt by this reckoning to make an eſtimat of the infinite maſſe of marble, as well in pillars as ſquare Aſhler, the rich and curious pictures, beſides other ſumptuous furniture, meet indeed for a king, which muſt of neceſſitie be employed in a hundred ſuch houſes, as might not onely compare with that moſt beautifull and gorgeous houſe of *Catulus*, but alſo exceed the ſame; as alſo the infinit number of other houſes afterwards, even untill this day, which have gone beyond thoſe hundred in ſumptuoſities: What would he ſay, and to what an unmeaſurable proportion will all this ariſe? Certes, it cannot bee denied, but fire (which burneth many a ſtately pallace) doth ſay well to the plucking down of mans pride, and puniſhing
B ſuch waſtfull ſuperfluities; and yet theſe and ſuch like examples, will not reforme the abuſes that reign in the world: neither will this leſſon enter into our heads, That there is ought under heaven more fraile, mor tall, and tranſitorie, than man himſelfe. But what do I ſtand upon thoſe glorious edifices, when two pallaces onely have ſurpaſſed them all in coſtlineſſe and magnificence. Twice in our time we have ſeene the whole pourpriſe of Rome to be taken up, for to make the pallaces of two Emperours, *C. Caligula*, and *Nero*: and as for that of *Nero* (becauſe there might bee nothing wanting of ſuperfluitie in the higheſt degree) hee cauſed it to bee all guilded, and called it was, The golden pallace. For why? thoſe noble Romanes who were the founders of this our Empire, dwelt (no doubt) in ſuch glorious and ſtately houſes; thoſe I meane who went from the very plough taile, or els out of their country cabines (where they were found at repaſt by the fire ſide)
C to manage the warres, to atcheeve brave feats of armes, to conquer mightie nations, and to return with victory triumphant into the citie; ſuch, I ſay, as had not ſo much free land in the whole world as would ſerve for one of the cellars of theſe Prodigals. And here I cannot but thinke with my ſelfe how little in proportion to the magnificent buildings of theſe daies were thoſe plots of grounds which in old time the whole ſtate gave unto thoſe invincible captaines by publicke decree for to build them houſes upon, and how many of ſuch places would goe to one of theſe in our time: And yet this was the greateſt honour that they could deviſe to beſtow upon thoſe valiant and hardie knights, as it may appeare by **L. Valerius Publicola*, the firſt Conſull that ever was at Rome, and had companion with him in that government *L. Brutus*, who had no other reward in recompence of his good ſervice to the Commonweale, and ſo many demerits; as alſo by his
D brother, who in the ſame Conſulſhip defeated the Samnites twice: where it is worth the noting, that in the patent this braunch went withall, *That they were allowed to open the gates of their houſes outward, ſo as the dores might be caſt to the ſtreet ſide*: this was in thoſe daies the moſt glorious and honourable ſhew that ſuch mens houſes made, even thoſe who had triumphed over the enemie. Howbeit, as ſumptuous in this kind, as either *C. Caligula* or *Nero* was, yet ſhall they not enjoy the glorie of this fame, though you put them two and two together: for I will ſhew, that all this pride and exceſſe of theirs in building their pallaces (princes though they were & mighty monarchs) came behind the privat workes of *M. Scaurus*: Whoſe example in his Ædileſhip was of ſo ill conſequence, as I wot not whether ever there were any thing that overthrew ſo much all good manners and orderly civilitie: in ſuch ſort, as hard it is to ſay whether *Sylla* did more dammage to
E the ſtate, in having a *ſonne in law ſo rich and mightie, than by the proſcription of ſo many thouſand Romane citizens. And in truth, this *Scaurus* when he was Ædile, cauſed a wonderfull peece of worke to be made, and exceeding all that ever had been knowne wrought by mans hand, not onely thoſe that have been erected for a month or ſuch a thing, but even thoſe that have ben deſtined for perpetuitie; and a Theatre it was: the ſtage had three lofts one above another, wherein were three hundred and threeſcore columnes of marble; (a ſtraunge and admirable ſight in that citie, which in times paſt could not endure ſix ſmall pillars of marble, hewed out of the quarrey in mount Hymettus, in the houſe of a *moſt honourable perſonage, without a great reproch and rebuke given unto him for it;) the baſe or nethermoſt part of the ſtage, was all of marble; the middle of glaſſe (an exceſſive ſuperfluitie, never heard of before or after;) as for the uppermoſt, the
F bourds, plankes, and floores were guilded; the columnes beneath, were (as I have ſaid before) fortie foot high, wanting twaine: and between theſe columnes (as I have ſhewed before) there ſtood of ſtatues and images in braſſe to the number of three thouſand. The Theatre it ſelfe was able to receive foureſcore thouſand perſons to ſit well, and at eaſe. Whereas the compaſſe of *Pompeies* Amphitheatre (notwithſtanding the cittie of Rome ſo much enlarged, and more peopled in his time)

* *Publius*, out of *Livie*.

* For *Sylla* maried the mother of *Scaurus*.

* *L. Craſſus*.

time) was deuised for to containe no greater number than fortie thousand seats at large. As touching the other furniture of this Theatre of *Scaurus* in rich hangings, which were cloth of gold: painted tables, the most exquisit that could be found: plaiers apparell and other stuffe meet for to adorne the stage, there was such abundance thereof, that there being caried backe to his house of pleasure at Tusculum the surplusage thereof, over and above the daintiest part, wherof he had daily use at Rome, his servants and slaves there, upon indignation for this waste and monstrous superfluities of their maister, set the said countrey house on fire, and burnt as much as came to a hundred millions of sesterces. Certes, when I consider and behold the monstrous humours of these prodigall spirits, my mind is drawne away still from the progresse of mine intended journie, and forced I am to digresse out of my way, and to annex unto this vanitie of *Scaurus* as great folie of another, not in masonrie and marble, but in carpentrie and timber: and *C. Curio* it was, hee who in the civile warres betweene *Cæsar* and *Pompey*, lost his life in the quarrell of *Cæsar*. This gentleman, desirous to shew pleasure unto the people of Rome at the funerals of his father deceased, as the manner then was, and seeing that he could not outgoe *Scaurus* in rich and sumptuous furniture (for where should he have had such a father in law againe as *Sylla*? Where could he have found the like mother to dame *Metella*, who had her share in all forfeitures and confiscations of the goods of outlawed citizens? and where was it possible for him to meet with such another father as *M. Scaurus*, the principall person of the whole citie so long together, who parted stakes with *Marius* in pilling and polling of the provinces, and was the very receptacle & gulfe which received and swallowed all their spoiles and pillage?) and *Scaurus* himselfe verely, if hee might have had all the goods in the world, could not have done as hee did before, nor make the like Theatre againe, by reason that his house at Tusculum was burnt, where the costly and rich furniture, the goodliest rare ornaments which he had gotten together from all parts of the world, were consumed to ashes: by which fire yet this good hee got and prerogative above all other, That no man ever after him was able to match that sumptuositie of his Theatre. This gentleman (I say) *Curio*, all things considered, was put to his shifts, and deuised to surpasse *Scaurus* in wit, since he could not come neare him in wealth. And what might his invention bee? Certes, it is worth the knowledge, if there were no more but this, that we may have joy of our owne conceits and fashions, and call our selves worthily, as our manner is, *Majores, that is to say, superiour every way to all others. To come then to *C. Curio*, and his cunning deuise, he caused two Theatres to bee framed of timber, and those exceeding big, howbeit so, as they might bee turned about as a man would have them, approch neare one to the other, or be remooved farther asunder as one would desire, and all by the meanes of one hooke apeece that they hung by, which bare the weight of the whole frame, the countrepoise was so even, and all the whole therefore sure and firme. Now he ordered the matter thus, that to behold the severall stage plaies and shewes in the forenoone before dinner, they should be set backe to back, to the end, that the stages should not trouble one another: and when the people had taken their pleasure that way, hee turned the Theatres about in a trice against the afternoone, that they affronted one another: and toward the latter end of the day, and namely, when the fencers and sword-plaiers were to come in place, he brought both the Theatres nearer together (and yet every man sat still and kept his place, according to his rank and order) insomuch, as by the meeting of the hornes or corners of them both together in compasse, he made a faire round Amphitheatre of it: and there in the middest between, he exhibited indeed unto them all jointly, a fight and spectacle of sword-fencers fighting at sharpe, whome he had hired for that purpose: but in truth, a man may say more truly, that he caried the whole people of Rome round about at his pleasure, bound sure ynough for stirring or remooving. Now let us come to the point, and consider a little better of this thing. What should a man woonder at most therein, the deuiser or the deuise it selfe? The workeman of this fabricke, or the maister that set him on worke? Whether of the twaine is more admirable, either the venterous head of him that deuised it, or the bold heart of him that undertooke it? to commaund such a thing to be done, or to obey and yeeld to goe in hand with it? But when we have said all that we can, the follie of the blind and bold people of Rome went beyond all; who trusted such a tickliish frame, and durst sit there, in a seat so moveable. Loe where a man might have seene the bodie of that people, which is commaunder and ruler of the whole earth, the conquerour of the world, the disposer of kingdomes and realmes at their pleasure, the devider of countries and nations at their will, the giver of lawes to forraine states, the vicegerent of the immortall gods under heaven and representing

their

* The Romans delighted much in this word *Maiores*, as may appear by their *More Maiorum, &c.*

A their image unto all mankind: hanging in the air within a frame at the mercy of one only hooke, rejoicing and readie to clap hands at their owne daunger. What a cheape market of mens lives was here toward! What was the loſſe at Cannæ to this hazard, that they ſhould complaine ſo much as they doe of Cannæ? How neare unto a miſcheefe were they, which might have happened hereby in the turning of a hand? Certes, when there is newes come of a cittie ſwallowed up by a wide chinke and opening of the earth, all men generally in a publicke commiſeration doe greeve thereat, and there is not one but his heart doth earne; and yet, behold the univerſall ſtate and people of Rome, as if they were put into a couple of barkes, ſupported betweene heaven and earth, and ſitting at the devotion onely of two pins or hookes. And what ſpectacle doe they behold, a number of fencers trying it out with unrebated ſwords? nay ywis, but even themſelves ra-
B ther entered into a moſt deſperat fight, and at the point to breake their necks every mothers ſon, if the ſcaffold failed never ſo little, & the frame went out of joint: Now ſurely by this proofe, *Curio* had gotten a good hand over the people of Rome, and no Tribunes of the Commons with all their Orations could doe more: from that time forward he might make account to bee ſo gracious, as to lead all the tribes after him in any ſuits; and have them hanging in the aire at his pleaſure. What a mightie man with them might hee bee (thinke you) preaching unto them from the Roſtra? What would not he dare to propoſe, having audience in that publick place before them, who could perſuade them thus, as he did, to ſit upon ſuch turning and tickliſh Theatres. And in truth, if we will conſider this pageant upright, we muſt needs confeſſe & may bee bold to ſay, that *Curio* had all the people of Rome to performe a brave skirmiſh and combat indeed to honor and
C ſolemnize the funerals of his father before his tombe. And yet here is not all: for hee was at his chaunge and varietie of magnificent ſhewes: and when he perceived once that the hookes of his frames were ſtretched ynough and began to be out of order, hee kept them ſtill cloſe together round in forme of a perfect Amphitheatre, and the very laſt day of his funerall ſolemnities, upon two ſtages juſt in the middeſt, he repreſented wreſtlers and other champions to performe their devoire, and then all on a ſuddaine cauſing the ſaid ſtages to be disjoined and hailed one from another a contrary way, he brought forth the ſame day the fencers & ſword players who had woon the priſe, and with that ſhew made an end of all. See what *Curio* was able to doe! And yet was he neither king nor Keſar: he was not ſo much as a generall or commaunder of an armie; nay, hee was not named for any great rich man: as whoſe principall ſtate depended upon this, That when
D the great men of the cittie, *Cæſar* and *Pompey*, were skuffling together by the eares, hee knew well how to fiſh in a troubled water. But to leave *Curio* and ſuch as he was with their fooliſh and idle expences, let us come to the miraculous workes that *Q. Marcius Rex* performed, and that to ſome good purpoſe: which if we conſider and eſteeme aright, paſſe all the other before rehearſed. This gentleman when he was Pretour, having commandement and commiſſion both from the Senat, to repaire the conduits to the waters of Appia, Anio, and Tepula, which ſerved Rome, did not that onely, but alſo conveighed a new water into the cittie, which of his own name he called Martia: and notwithſtanding that hee was to pierce certaine mountaines, and make trenches quite through them under the ground, for to bring the water thither from the Spring, yet hee perfourmed all within the time of his Pretourſhip. As for *Agrippa*, whiles he was Ædile, beſides the con-
E duits from all other fountaines which he ſcoured, repaired, and cauſed to keepe their currant: he brought another of his owne to the cittie, which is knowne by the name of Virgo: he made ſeven hundred pooles for receit of waters: a hundred and five conduits, yeelding water at cockes and ſpouts: beſides a hundred and thirtie conduit heads in the fields, and the moſt of them built ſtrongly with vaults, and adorned right ſtately. Moreover, upon theſe workes of his he erected ſtatues and images, to the number of three hundred, partly of braſſe, and partly of marble, beſides foure hundred pillars of marble, and all within the compaſſe of one yeare. And if wee may beleeve his owne ſpeech, diſcourſing of the acts done by him during his Ædileſhip, hee addeth moreover and ſaith, That the plaies and games which hee exhibited that yeare, for to doe the people pleaſure, continued threeſcore daies together, wanting one: that hee cauſed a hundred
F threeſcore and ten baines and ſtouves to be made within the cittie, wherein people of all ſorts and degrees might bath and ſweat of free coſt, and not pay a denier; the which remaine at this day, and have brought with them an infinit number of others. But of all the conduits that ever were before this time, that which was laſt begun by *C. Caligula Cæſar*, and finiſhed by *Claudius Cæſar* his ſucceſſour, paſſeth for ſumptuouſneſſe: for they commaunded the waters from the two fountaines,

taines, Curtius and Cæruleus, whose heads were 40 miles of: and these they carried before them with such a force and to such an height, that they mounted up to the top of the highest hils of Rome, and served them that dwelt thereupon. This worke cost *three hundred millions of sesterces. Certes, if a man would well and truly consider the abundance of water that is brought therby, and how many places it serveth, as well publicke as privat, in baines, stewes, and fishpooles, for kitchins and other houses of office, for pipes and little riverets to water gardens, as well about the citie, as in manors and houses of pleasure in the fields neare unto the citie; over & besides, what a mightie way these waters be brought; the number of arches that of necessitie must be built of purpose for to conveigh them; the mountaines that bee pierced and mined through to give way together, with the vallies that are raised and made even and levell with other ground: hee will confesse, that there was never any desseine in the whole world enterprised and effected, more admirable than this. In the ranke of these most memorable workes of man, I may well raunge the mountaine that was digged through by the same *Claudius Cæsar*, for to void away the water out of the lough or meere Fucinus, although this worke was left unfinished for hatred of his *successour: which I assure you cost an incredible and inenarrable summe of money, besides the infinit toile and labour of a multitude of workemen and labourers so many yeares together, as well to force the water which came upon the pioners from under the ground with devise of engines and windles up to the top of the hill, whereas it stood upon meere earth; as to cut and hew through hard rags and rockes of flint: and all this by candlelight within the earth, in such sort, as unlesse a man had been there to have seene the manner of it, unpossible it is either to conceive in mind or expresse with tongue the difficulty of the enterprise. As for the peere and haven at Ostia (because I would make an end once of these matters) I will not say a word thereof, nor of the waies and passages cut through the mountaines, ne yet of the mightie piles and damns to exclude the Tuscane sea, for the Lucrine lake, with so many rampiers and bridges made of such infinit cost. Howbeit, among many other miraculous things in Ægypt, one thing more I will relate out of mine author *Papyrius Fabianus*, a great learned Naturalist, namely, That marble doth grow daily in the quarries: and in very truth, the farmers of those quarries, and such as ordinarily do labour and dig out stone, doe affirme no lesse; who upon their experience doe assure us, that look what holes and caves be made in those rockes and mountaines, the same will gather againe and fill up in time: which if it be true, good hope there is, that so long as marbles doe live, excesse in building will never die.

*Sestertium ter millies: howbeit Budæus readeth quingenties, quinquagies, quinquies, and that is not much more than the sixt part; and yet by his computation ariseth to a million three hundred eightie five thousand and five hundred French crownes.

*Nero.

Chap. XVI.

The sundrie kinds of the Load-stone, and the medicines thereto depending.

NOw that I am to passe from marbles, to the singular & admirable natures of other stones; who doubteth but the Magnet or Loadstone will present it self in the first place? for is there any thing more wonderfull, and wherein Nature hath more travelled to shew her power, than in it? True it is, that to rockes and stones she had given *voice (as I have already shewed) whereby they are able to answere a man, nay, they are ready to gainesay and multiplie words upon him. But is that all? what is there to our seeming more dull than the stiffe and hard stone? And yet behold, Nature hath bestowed upon it, sence, yea and hands also, with the use thereof. What can we devise more stubborne and rebellious in the owne kind, than the hard yron, yet it yeeldeth, and will abide to be ordered: for loe, it is willing to be drawne by the load-stone: a marvellous matter that this mettall, which tameth and conquereth all things else, should run toward I wot not what, and the nearer that it approcheth, standeth still, as if it were arrested, and suffereth it selfe to bee held therewith, nay, it claspeth and clungeth to it, and will not away. And hereupon it is, that some call the load-stone * Sideritis, others Heracleos. As for the name Magnes that it hath, it tooke it (as *Nicander* saith) of the first inventor and deviser thereof, who found it (by his saying) upon the mountaine Ida (for now it is to be had in all other countries, like as in Spaine also;) and (by report) a Neat-heard he was: who, as he kept his beasts upon the foresaid mountaine, might perceive as he went up and downe, both the hob-nailes which were on his shoes, and also the yron picke or graine of his staffe, to sticke unto the said stone. Moreover, *Sotacus* ascribeth and setteth downe five sundrie kinds of the load-stone: the first, which commeth out of Æthyopia; the second, from that Magnesia which confineth upon Macedonie, and namely,

*i. The ecchō.

*σίδηρος in Greek is yron.

A namely,on the right hand,as you goe from thence toward the lake Bœbeis; the third is found in Echium,a towne of Bœotia; the fourth about Alexandria,in the region of Troas; and the fift in Magnesia,a country in Asia Minor. The principall difference observed in these stones,consisteth in the sex (for some be male,others female;)the next lieth in the colour. As for those which are brought out of Macedonie and Magnesia,they bee partly red, and partly blacke. The Bœotian loadstone standeth more upon red than blacke: contrariwise, that of Troas is blacke, and of the female sex,in which regard it is not of that vertue that others be. But the worst of all comes from Magnesia in Natolia,and the same is white: neither doth it draw yron as the rest, but resembleth the pumish stone. In summe,this is found by experience, That the blewer any of these loadstones be,the better they are and more powerfull. And the Æthyopian is simply the best,insomuch,as it
B is worth the weight in silver: Found it is in Zimiri,for so they call the sandie region of Æthyopia: which country yeeldeth also the sanguine loadstone,called Hæmatites,which both in colour resembleth bloud,and also if it bee bruised,yeeldeth a bloudie humour, yea and otherwhiles that which is like unto Saffron. As for the propertie of drawing yron,this bloud-stone Hæmatites is nothing like to the loadstone indeed. But if you would know and trie the true Æthyopian magnet, it is of power to draw unto it any of the other sorts of loadstones. This is a generall vertue in them all,more or lesse,according to that portion of strength which Nature hath endued them withall, That they are very good to be put into those medicines which are prepared for the eyes: but principally they doe represse the vehement flux of humours that fall into them: being calcined and beaten into pouder,they doe heale any burne or scald. To conclude, there is another
C mountaine in the same Æthyopia,and not farre from the said Zimiris,which breedeth the stone Theamedes that will abide no yron,but rejecteth and driveth the same from it. But of both these natures,as well the one as the other,I have written oftentimes alreadie.

Chap. xvii.

Of certaine stones which will quickly consume the bodies that be laid therein. Of others againe that preserve them a long time. Of the stone called Assius, and the medicinable properties thereof.

D WIthin the Isle Scyros there is a stone(by report)which so long as it is whole and sound will swim and flote upon the water: breake the same into small peeces,it will sinke. Neat unto Assos,a citie in Troas, there is found in the quarries a certaine stone called Sarcophagus,which runneth in a direct veine,and is apt to be cloven and so cut out of the rocke by flakes: The reason of that name is this,because that within the space of fortie daies it is known for certaine to consume the bodies of the dead which are bestowed therein, skin,flesh,and bone, all save the teeth. And *Mutianus* mine Author affirmeth, That looke what mirroirs, *currycombes, cloth, or shoes soever be cast into the said coffins with the dead,they will turne all into stone. Of this nature there be stones in Lycia and in the East countries, which if they bee hung or applied to living bodies also,will eat and fret them away. Yet the stone called Chernites,resembling yvo-
E rie,is more mild and gentle: for keepe it will and preserve dead bodies without consuming them at all,and in a sepulchre or coffin of this stone,the bodie of king *Darius*(they say) was bestowed. Touching the stone called Porus, like it is unto the marble of Paros for white colour and hardnesse,howbeit,nothing so weightie. *Theophrastus* writeth, That there be found in Ægypt certaine cleare and transparent stones, and those hee saith bee like unto the Serpentine marble Ophites: haply such there were in his time, for now are there none of them to bee found; but as they are gone,so there be new come in their place. As for the stone Assius,in tast it is saltish,but singular good to allay the paine of the gout,if the feet onely be put into a trough or hollow vessell made of that stone. Moreover,all greefes,paines,and infirmities of the legs,will be healed in such quarries: wheras in all mettall mines,the legs take harme. Furthermore,this stone yeeldeth in the top
F of the quarrie a certaine light substance,apt to be reduced into a soft pouder,which they call the floure of the said stone, and is as effectuall as the stone it selfe in some cases. Like it is for all the world to a red pumish stone. If it be mixed with Cyprian brasse or copper,it cureth the accidents of womens breasts: but being incorporat with pitch or rosin,it discusseth the kings evill,and any biles or botches. The same reduced into a lohoch to bee licked downe leasurely,serveth well in a phthy-

*Strigiles. He meaneth those that be used in baines to fetch off the sweat and filthinesse of our bodies.

phthysicke: and tempered with honey, it healeth up old ulcers and skinneth them cleane: and G
yet this propertie it hath, to eat away any excrescence of prowd flesh. The same is good for the bitings of wild and venomous beasts. Such morimals or sores as scorne ordinarie cures & be full of suppuration, it drieth. Finally, there is an excellent cataplasme made with it and beane-flower put together, for the gout.

Chap. xviii.

Of Yvorie minerall, digged out of the ground. Of stones that are of a bonie nature, and such, as their veines represent Date trees within: and of other kinds of stone.

H
Theophrastus and *Mutianus* abovenamed, are verely perswaded, That there be some stones which engender others. And as for *Theophrastus*, he affirmeth, That there is a minerall Yvorie found within the ground, as well blacke as white: also, that there be bones growing within the earth, yea, and stones of a bonie substance. About Munda, a cittie in Spaine, where *Cæsar* Dictatour defeated *Pompey*, there are found stones resembling Date trees, breake them as often as you will. There be also certaine blacke stones, whereof there is as great account made as of marbles: like as the stone also of the cape Tænara. And such blacke stones (*Varro* saith) be more firm and hard which come out of Africa, than those of Italie: and contrariwise, that there bee white stones harder to be wrought by the Turner, than the marble of Paros: The said *Varro* affirmeth, That the flint of Luna may be slit with the saw; whereas that of Tusculum will cracke and flie in I
peeces in the fire: also, That the darke and duskish Sabine stone, if it be sprinckled with oile, will burne of a light fire: moreover, That about Volsinij there have been found quernes or hand-mill-stones framed readie for worke, yea, and some we have seene to turn about and grind of their own accord; but such have been taken for prodigies. And since I am fallen upon the mention of such mill-stones, there is not a countrey in the world affourdeth better of that kind than Italie dooth: neither doe such grow in the rocke, and are hewed forth, but be entire stones of themselves apart: and yet in some provinces there are none of them to be had at all. And in this kind there be of a more free and softer grit, which being smoothed and pollished with a slicke stone, may seem a far off as if they were Serpentine marble: and verely, there is not a stone will endure better, or lie longer in building. For thus you must thinke, that all stones bee not of one and the same nature K
to abide raine and weather; heat of Summer and cold in Winter alike: for some be more durable than others, like as we find in sundrie kinds of timber. Finally, there be stones also, which may not away with the raies of the Moon: which in continuance of time will gather rust, yea, and with oyle will chaunge their white colour.

Chap. xix.

Of Curalium or Pyrites, i. the Marcasin: and the medicinable vertues thereof. Of the stone Ostracites, and the Amiant: together with the properties serving in Physicke: also, of the stone Melitites, and the vertues thereof. Likewise L
of the Geat, and the effects that it worketh in Physicke. Of Spunges. Lastly, of the Phrygian stone, and the nature of it.

THe mill-stone Curalium, some call Pyrites, because it seemeth to have great store of fire in it: howbeit, there is another fire stone going under the name of Pyrites or Marcasin, which resembleth brasse ore in the mine. And they say, that of it there is found great plenty in the Isle Cypros, and in those mines which are about Acarnania, where a man shall meet with one in colour like silver, and another like gold. These stones be calcined many and sundrie waies. Some boile them two or three times in honey, so long, untill all the liquor bee consumed: others burne them first in fire of coales, then they calcine them with hony, and afterwards wash them, after the M
manner of brasse. These stones thus prepared, are good in Physick, namely, to heat, to drie, to discusse, to subtiliat grosse humors, and to mollifie all schirrhosities or hard tumors. The same are much used also crude and uncalcined (being reduced into pouder) for the kings evill, and fellons. Moreover, in the ranke of these Marcasines, some raunge certaine stones, which wee call quicke fire-

A fire-ſtones, and of all others they be moſt ponderous: theſe bee moſt neceſſarie for the eſpialls belonging unto a campe, for if they ſtrike them either with an yron ſpike or another ſtone, they will caſt forth ſparks of fire, which lighting upon matches dipt in brimſtone, drie puffs or leaves, will cauſe them to catch fire ſooner than a man can ſay the word.

As touching the ſtones Oſtracitæ, they have a reſemblance to oyſter ſhels, wherof they tooke their name: uſed they are much in ſtead of pumiſh ſtone to ſmooth and ſlicke the skin: taken in drinke, they ſtaunch any flux of bloud; and in forme of a liniment applied with hony, they heale the ulcers in womens breaſts, and aſſuage their paine.

The * Amiant ſtone is like unto Alume, and beeing put into the fire, looſeth nothing of the ſubſtance: a ſingular propertie it hath to reſiſt all enchantments and ſorceries, ſuch eſpecially as B magicians doe practiſe. As for Gæodes, the Greeks have given it this ſignificant name, becauſe it containeth encloſed within the bellie a certaine earth; a medecine ſoveraigne for the eyes, as alſo for the infirmities incident as well to womens paps as mens genetoirs.

* It is taken for Alume de plume.

The ſtone Melitites hath that name, becauſe if it bee bruiſed or braied, it yeeldeth from it a certaine ſweet juice in manner of honey: the ſame being incorporat in wax, is good to cure the flegmaticke wheales, and other puſhes or ſpecks of the bodie; it healeth likewiſe the exulceration of the throat: applied with wooll, it taketh away the chilblanes or angrie bloudyfalls called Epinyctides: like as the griefe of the matrice it eaſeth in the ſame manner.

The Geat, which otherwiſe we call Gagates, carrieth the name of a towne and river both in Lycia, called Gages: it is ſaid alſo, that the ſea caſteth it up at a full tide or high water into the C Iſland Leucola, where it is gathered within the ſpace of twelve ſtadia, and no where elſe: blacke it is, plaine and even, of a hollow ſubſtance in manner of the pumiſh ſtone, not much differing from the nature of wood; light, brittle, and if it bee rubbed or bruiſed, of a ſtrong ſavour: looke what letters are imprinted with it into any veſſell of earth, they will never be gotten out againe: whiles it burneth, it yeeldeth the ſmell of brimſtone: but a wonderfull thing it is of this jeat ſtone, that water will ſoone make it to flame, and oile will quench it againe: in burning, the perfume thereof chaſeth away ſerpents, and bringeth women againe that lie in a traunce by the ſuffocation or riſing of the mother: the ſaid ſmoke diſcovereth the falling ſickneſſe, and bewraieth whether a young damſell be a *maiden or no; the ſame being boiled in wine, helpeth the toothach; and tempered with wax, cureth the ſwelling glandules named the Kings evill. They ſay that the D Magicians uſe this jeat ſtone much in their ſorceries which they practiſe by the means of red hot axes, which they call Axinomantia; for they affirme, that being caſt thereupon it will burne and conſume, if that which we deſire and wiſh ſhall happen accordingly.

* If ſhe drinke it faſting, preſently it provoketh urine, if ſhe be a pure virgin.

As for Spunges, I meane by them in this place certaine ſtones found in Spunges, & the ſame alſo doe engender naturally within them. Some there bee who call them Tecolithos, becauſe they are good for the bladder, in this reſpect, that they breake the ſtone if they be drunke in wine.

As concerning the Phrygian ſtone, it beareth the name of the countrey where it is ordinarily found, and it groweth in lumps that be hollow in manner of a pumiſh ſtone: the order is to ſteep it well in wine before it be calcined, and in the burning to maintaine the fire with blaſt of bellows untill it wax red; then, to quench it againe in ſweet wine, continuing this courſe three times: and E when it is thus prepared, it is good only for to ſcoure cloth and make it readie for the dier to take a colour.

Chap. xx.

Of the red bloud-ſtone Hæmatites, and the five ſorts thereof: alſo of the blacke ſanguine Stone called Schiſtos.

THe bloud-ſtone Schiſtos and Hœmatites both, have a great affinitie one with another. As for the bloud-ſtone Hœmatites, a meere minerall it is and found in mines of mettall: being burnt, it commeth to the colour of vermillon: the manner of calcining it, is much after that of the Phrygian ſtone, but wine ſerveth not to quench it: many ſophiſticat it with Schiſtos, F and obtrude the one for the other: but the difference is ſoon knowne, for that the right Hœmatites hath red veins in it, and beſides is by nature fraile and eaſie to crumble: of woonderfull operation it is to helpe bloudſhotten eies: the ſame given to women to drinke, ſtaieth the immoderat flux that followeth them: they alſo that uſe to caſt up bloud at the mouth, find helpe by drinking it with the juice of a pomegranat: in the diſeaſes likewiſe of the bladder it is verie effectuall:

and being taken in wine, it is ſoveraigne againſt the ſting of ſerpents. In all theſe caſes the bloud- G
ſtone Schiſtos is effectuall, but weaker onely it is in operation: and yet among theſe ſanguine or bloud ſtones, thoſe are taken for the beſt and moſt helpefull which in colour reſemble ſaffron; and ſuch have a peculiar reſplendent luſtre by themſelves. This ſtone beeing applied to weeping and waterie eyes with womans milke, doth them much good; and is ſoveraigne alſo to reſtraine and keepe them in, if they bee readie to ſtart out of the head: And this I write according to the mind and opinion of our moderne authors. But *Sotacus* a verie auncient writer hath delivered unto us five kinds of bloud-ſtone, beſides that Hœmatites which is called Magnes or the load-ſtone: among which, he giveth the chiefe prize and principall praiſe to the Æthiopian, for that it is ſo ſoveraigne for to bee put into medecins appropriat to the eyes; as alſo into thoſe which for their excellent operation be called Panchreſta. A ſecond ſort he ſaith, is called Androdamas, H
blacke of colour, and for weight and hardneſſe ſurpaſſing all the reſt, whereupon it tooke that name; and of this kind there are found great ſtore in Barbarie: hee affirmeth moreover, that it hath a qualitie to draw unto it ſilver, braſſe, and iron: and for to make proofe whether it bee good or no, it ought to bee ground upon the touch called Baſanites; for it will yeeld a bloudie juice, the which is a right ſoveraigne remedie for the diſeaſes of the liver. For the third kind of bloud-ſtone, he maketh the Arabicke, for that it is brought out of Arabia: as hard it is as the other, for hardly will there any juice come from it though it be put to the grindſtone; and the ſame other-while is of a ſaffron colour. The fourth ſort he ſaith, is called Elatites, ſo long as it is crude; but being once calcined, it taketh the name Miltites; a verie excellent thing for burns and ſcaldings, and in all caſes much better than any ruddle whatſoever. In the fifth place he reckneth that which I
is called Schiſtos: this is held to be ſingular in repreſſing the flux of bloud from the hæmorrhoid veins. But generally of all theſe bloudſtones, he concludeth thus, That if they be pulveriſed and taken in oile upon a faſting ſtomacke, to the weight of three drams, they be right ſoveraigne for all fluxes of bloud. The ſame authour writeth of another Schiſtos that is none of theſe Hœmatites, and this they call Anthracites: and by his ſaying, found there is of it in Affricke, blacke in colour, which if it be ground upon a whetſtone or grindſtone with water, yeeldeth toward the nether end or ſide thereof that lay next unto the ground, a certain blacke juice; but on the other ſide, of a ſaffron colour: and hee is of opinion, that the ſaid juice is ſingular for thoſe medecines which be appropriat to the eyes.

K

Chap. xxi.

Of the foure kinds of the Ægle-ſtone, Aëtites: of the ſtone Callimus: of the ſtones Samnus and Arabus: and of Pumiſh ſtones.

THe Ægle-ſtones called Aëtites, be much renowmed in regard of the verie name that they carrie: found they are in Ægles neſts, as I have ſhewed alreadie in my tenth booke: and it is ſaid, that they be two togither, to wit, the male and the female: alſo that without them the Ægles cannot hatch, which is the reaſon that they never have above two yong Ægles at one airie. Of this Ægle-ſtone there be foure kinds: for one ſort thereof is bred in Affricke; the ſame is verie ſmall and ſoft, containing within it as it were in a wombe, a certaine clay which is ſweet, L
pleaſant, and white: the ſtone it ſelfe is brittle and apt to crumble, and this is thought to bee the female ſex. The ſecond, which is taken for the male, groweth in Arabia: hard this is and reſembleth a gall-nut in faſhion, and the ſame otherwhile is of a reddiſh colour, having encloſed within the bellie thereof another hard ſtone. The third is found in the Iſle Cypros; for colour much like to thoſe that be engendred in Affricke, otherwiſe bigger and made more flat and broad than they: the reſt be uſually round in manner of a globe: this hath alſo within the wombe a ſweet ſand and other ſmall gravelly ſtones, but it ſelfe is ſo tender that a man may crumble it between his fingers. The fourth kind is named Taphiuſius, for that it is bred neare unto the cape Leucas in a place neare unto Taphiuſa, on the right hand as men ſaile from the ſaid Taphiuſa toward Leucas: there is found of it in rivers, but the ſame is white and round: within the belly of it there M
is another ſtone called Callimus, and there is not a thing more tender than it. But to come unto the properties of theſe Ægle-ſtones: They are commended as ſingular for women with child, or four-footed beaſts that are with young; for if they be hung about their necks, or otherwiſe tied to any part within the skin of a beaſt ſacrificed, they will cauſe them to goe out their full time; but

remooved

A remooved they must not be but at the verie time of deliverance, for otherwise the verie wombe or matrice would slip out withall; and unlesse they be remooved then, they shall never be delivered. Within the same Isle Samos (wherein we praised the goldsmiths earth Tripolie) there is a stone likewise called Samius, very good to burnish and polish gold: the same serveth also in physicke togither with milke, for ulcers of the eyes, being applied in manner aforesaid; and in that sort it cureth also their weeping and watering which hath continued a long time: the same being taken in drinke, helpeth the infirmitie and other accidents of the stomacke; it cureth the dizzinesse of the head, and restoreth those to their right senses againe who be troubled in their brain. Some are of opinion, that it is holesome to bee given unto those that are subject to the falling sickenesse, or difficultie of making water: besides, it is one of the ingredients that goe to the ma-
B king of those medecines which be called Acopa: for to know whether it bee good, see that it be passing white and heavie withall. It is said, that if a woman weare it hanging or tied about her, it will keepe her from untimely slips of her abortive fruit, and withall containe the matrice though it were given to fall downe too low.

Touching the stone Arabus, like it is to yvorie; a proper thing for dentifrices, if it be calcined and reduced to powder: a peculiar propertie it hath besides, to cure the hæmorrhoids, beeing applied thereto in lint, so that there be fine linnen cloaths laid afterwards thereupon.

I must not overpasse in silence, the treatise of pumish stones and their nature: I am not ignorant that in architecture and masonrie, they use to call by the name of Pumices or Pumishes those hollowed stones or bricks as if they were eaten into, which hang downe from those vaulted
C buildings which they call Musea, to represent a cave or hollow vault artificially made. But to speake more properly of those Pumishes which are used by women for to smooth and slicke their skin, yea and by your leave, by men also in these daies; also for to pollish books, as *Catullus* saith, the best of them are found in Melos, Scyros, and the Islands of Ætolia: and those ought to bee 2 verie white, and according to their proportion exceeding light: the same should be also as spun-
3 geous as is possible, and drie without; easie to be beaten to powder, and in the rubbing betweene the fingers not apt to yeeld from them any sand. As for their medicinable vertues, they doe extenuat and drie, after three calcinings, so that regard be had in the torrifying, that it be done with cleane charcoles that burn cleare, and that they be everie time quenched with white wine: which done, they are to be washed like unto Cadmia or the Calamine stone; and being dried againe,
D they would be laid up in some drie place which is in any wise danke or given to gather mouldinesse. The powder of this stone is commended principally in medecines for the eyes, for a gentle mundificative it is, and cleanseth the ulcers and sores incident unto them: it doth incarnat hollow skars and maketh them even with the rest about them. Some, after the third burning, suffer them to coole of themselves, and not by quenching; and chuse rather to beat them afterwards with some sprinckling of wine among: they enter likewise into those emollitive or lenitive plastres which are devised for the sores of the head or ulcers in the privities. The best dentifrices for to cleanse or whiten the teeth, bee made of the pumish. *Theophrastus* writeth, that great drun-
5 kards who drinke for a wager, use to take the powder of the pumish stone before-hand; for then
4 they may, nay they must quaffe lustily indeed, for unlesse they bee filled with drinke, they are en-
E daungered by the foresaid powder. To conclude, hee saith, that so exceeding refrigerative it is, that if new wine doe worke or purge never so much, cast but a little pumish stone into it, you shall see it give over immediatly.

Chap. XXII.

Of stones which be good for Apothecaries to make their mortars of: of soft stones: of the glasse-stone: of flints and the shining stone Phengites: of whetstones and grindstones: of other stones that serve in building, which resist the violence of fire and tempests.

F OVr auncient writers in old time were carefull to find stones fit for mortars, and not onely to serve Apothecaries for to beat and pulverize their druggs, or painters to grind their colours, but the cookes also in the kitchin for to powder their spices: and in verie truth, they preferred the Ephesian marble before all others; and next to it, that of Thebais in high Ægypt, which I called before Pyrrhopœcilon, although some there be that name it Pharonium: in a

third degree they place a kind of Chalazius named Chryſites; but the Phyſicians make moſt G
account of that kind of whetſtone which they call Baſanites, becauſe this ſtone ſendeth nothing from it, for all the ſtamping and punning that is made in it. As for ſuch ſtones as yeeld a certaine moiſture from them, they are ſuppoſed to bee good for eyeſalves, and therefore in that regard the Æthiopian marble is beſt eſteemed for that purpoſe. As for the marble of Tænara, of Carthage called Pœnicum, and the bloud-ſtone Homatites, they are all good (they ſay) for thoſe compoſitions which ſtand upon ſaffron: but that Tænarian marble which is blacke, as alſo the white marble of Paros, is not ſo good for Phyſicians, who rather chuſe the Alabaſtrite of Ægypt, or the white Serpentine marble: for this kind of Ophites it is wherof they make their veſſels and barrels. In the Iſland Siphnus there groweth in the quarries, a ſtone, which they uſe to hew hollow, and by turners craft make veſſels for the kitchin good to boile viands in; alſo verie handſom H
for platters and diſhes to ſerve up meat to the table; much like unto the greene ſtone that commeth from Comus in Italie, which wee ſee ordinarily emploied to thoſe uſes: but this propertie hath the Siphnian ſtone by it ſelfe, that if it be once heat with oile, it beginneth to looke blacke and waxeth hard withall, being otherwiſe naturally exceeding ſoft: ſuch difference ther is among ſtones. For on the further ſide of the Alps there be ſtones found exceeding ſoft: and in the province Belgica or Picardie, they have a certaine white ſtone, which they ſlit through with a ſaw as they doe timber, yea and with much more facilitie, wherewith they make plates that ſerve to cover their houſes in manner of ſlates or tyles, both on the ſides and alſo in gutter and ridge; yea and if they liſt, to make fine worke upon the rouſes that may ſhine like unto peacocks feathers, which they call Pavonacea: and verely this kind of ſtone is apt alſo to be cloven. I

Speculatis lapis As touching * Talc (which alſo goeth in the name of a ſtone) it is by nature much more eaſie to be cloven into as thin flakes as a man will. This kind of glaſſe ſtone, the hither part of Spaine onely in old time did affourd us, and the ſame not all throughout, but within the compaſſe of a hundred miles, namely about the citie Segobrica: but in theſe we have it from Cypros, Cappadocia, and Sicilie, and of late alſo it hath been found in Barbarie: howbeit, the beſt glaſſe-ſtone commeth from Spaine and Cappadocia, for it is the tendreſt and carrieth largeſt pannels, although they be not altogither the cleareſt, but ſomewhat duskiſh. There be alſo of them in Italy about Bononia, but the ſame bee ſhort and ſmall, full of ſpots alſo and joyned to peeces of flint; and yet it ſeemeth that in nature they bee much like unto thoſe that in Spaine be digged out of pits which they ſinke to a great depth. Moreover, there is found of this Talc betweene other K
ſtones encloſed in a rocke and lying under the ground, which muſt be hewed out if a man would have them. But for the moſt part, this Talc lieth in manner of a veine in the mine by it ſelfe, as if it were perfitly cut alreadie by nature; and yet was there never any peece knowne to bee above five foot long. Some are of opinion, that it is a liquid humor of the earth congealed to an yce after the manner of criſtall. Certes, that it groweth hard into the nature of a ſtone, may appeare evidently by this, That when any wild beaſts are chaunced to fall into ſuch pits where this glaſſe ſtone is gotten, the very marow of their bones (after one winter) will be converted and turned into a ſtonie ſubſtance like to the Talc it ſelfe. Otherwhiles there is found of this kind which is blacke; but the white is of a ſtraunge and wonderfull nature, for being (as it is well knowne) tender and brittle, nothing more, yet it will endure extreame heat and frozen cold, and never crack; L
nay you ſhall never ſee it decay for age, keepe it ſo long as you will, ſo that it may eſcape outward injuries: notwithſtanding wee doe ſee many ſtones in building laid with ſtrong mortar and cement, yet ſubject to age. There hath been deviſed another uſe alſo of Talc in ſmaller peeces, namely, to pave therewith the floore of the great ſhew-place or cirque in Rome, during the running of charriots and other feats of activitie there perfourmed, to the end that their whiteneſſe might give a more lovely gloſſe to commend the place. In the daies of *Nero* late Emperour, there was found in Cappadocia a ſtone as hard as marble, white and tranſparent and ſhining through, yea even on that ſide where it hath certaine reddiſh ſtreakes or ſpots: in which regard, (for that it is ſo reſplendent) it hath found a name to be called Phengites: Of this ſtone, the ſaid Emperour cauſed the temple of *Fortune* to bee built called Seia, (which king *Servius* had firſt M
dedicated) compriſed within the compaſſe of *Neroes* golden houſe: and therefore when the dores ſtood open in the daie time, a man might ſee within, the day light, after the manner of glaſſe-ſtones; yet ſo, as if all the light were within-forth onely, and not let in from the aire thorow the windowes. Moreover, king *Iuba* writeth, that in Arabia there is a certaine ſtone found,

which

A which likewiſe ſhineth as glaſſe, whereof the inhabitants of thoſe parts doe make their mirrours or looking-glaſſes.

It remaineth now, that I ſhould proceed to thoſe ſtones which are by workmen emploied to good and neceſſarie uſes: firſt of all, to thoſe which ſerve to whet tools and inſtruments of yron, of which there be many ſorts: Thoſe of Candie, for a long time were of greateſt name & moſt in requeſt: in a ſecond degree were thoſe accounted which came from the mountaine Targetus in Laconia: but both the one and the other ſerve for no uſe, without oile. But among the grind-ſtones and whetſtones which are occupied with water, thoſe of Naxos were in greateſt price and moſt commended; next to them, thoſe of Armenia, wherof I have alreadie written. The ſtones of Cilicia will do well enough either with water or oile, it skilleth not whether: but the whetſtones
B that come from Arſinoë, are onely uſed with water. There bee found in Italie whetſtones, which with water will give a wonderfull keene edge; alſo beyond the Alps, and ſuch they call Paſſernices. In a fourth ranke are to be reckoned thoſe ſtones which ſerve with a mans ſpittle, and ſuch be the hones that barbers occupie for to ſharpen their raſors; but they are of little or no uſe at all becauſe they be ſo ſoft and brittle: and of this kind, the chiefe are ſent out of the hither part of Spaine from the countrey Flamminitana. As for other ſtones whereof I have not written alreadie, they be all naught for building, ſo ſoft they be, and by that means nothing durable: and yet in ſome countries they have none other to build withall, as namely at Carthage in Africke, notwithſtanding the walls of the houſes there are ſubject to the vapours of the ſea, are pinched and pearced with winds, yea and beaten with raine and weather; againſt which inconveniences the
C inhabitants are forced to keepe their walls with pitching, for otherwiſe (the ſtones are ſo tender and ſoft) the ordinarie parget of lime would fret and eat them: whereupon there goeth a pretie ſpeech of the Carthaginians, that they doe contrarie to all others, in that they uſe pitch to their houſes, and lime to their wines; for in truth they tun up their new wines with lime. There be found moreover about Rome other ſoft ſtones, to wit, in the territories belonging to Fidena and Alba: in Liguria likewiſe, Vmbria, and Venice, they have a white free ſtone, which may bee eaſily cut with a toothed ſaw: theſe are verie tractable and eaſie to be wrought, and will laſt reaſonable well, but within houſe only; for if the weather lie upon them, if the raine beat, and the pinching froſt come, they will pill and ſhake, yea and breake into peeces; neither bee they durable againſt the breath and vapour of the ſea. The Tyburtine ſtones, they will endure all other things
D well enough, onely they may not abide hot vapours, for if the heat of Summer take them, they will gape and be readie to cleave in ſunder. As for flints, the blacke, and in ſome places the red alſo, are much commended: in certaine countries, the white be verie good; as namely, thoſe in the quarries about Anicia within the territorie of Tarquinij about the lake neare unto Volſinij: alſo along the tract of Statona, there bee good building-ſtones that will take no harme by fire; theſe are commonly uſed for thoſe monuments and memorials wherin ought is to be engraved, for they continue a long time and are not the worſe for age: Of this kind of ſtone, the founders make their moulds for to melt braſſe in. Moreover, there is a kind of greene ſtone, which woonderfully checketh and ſcorneth all fire; but in no place is there plentie thereof to bee had: and
E whereſoever it is found, it groweth not in manner of a rocke or quarrie, but lieth ſcattered here and there. Of the reſt that hitherto are not named, the pale ſtone is not good for building, and ſeldome will it ſerve to make mortar of. The round pebbles are laſting enough, and will endure any hardneſſe, but ſurely in building nothing truſtie, unleſſe they be knit and bound with ſtrong mortar and couched well togither. Thoſe that are gathered out of rivers make no ſure building, for they ſeeme alwaies to relent and be moiſt: but for ſuch ſtones as theſe, and generally for all thoſe that we doubt, the onely remedie is to dig them out of the ground in Summer, to let them have two yeers ſeaſoning in lying abroad and taking all kinds of weather before they be emploied in building; and looke how much thereof hath caught harme by this means, the ſame will ſerve verie well in groundworks and foundations: and that which continueth ſtill ſound, you may be bold to put it in building, yea in open workes without dore. The Greekes have a kind of wall
F which they make of hard pebbles or flint couched even and laid in order by line and levell, like as we doe in bricke walls; and this kind of building they call in maſonrie Iſodomon: but in caſe they be not even laid nor raunged ſtreight, but that ſome part of the wall is thicker than others, they tearme it Pſeudiſodomon. A third manner they have which they name Emplecton, namely, when the front onely of the wall is ſmooth and even, for otherwiſe within they huddle and fill

one with another. Moreover, to lay a wall artificially and to bind the ſtones well, they ought in alternative courſe to ride & reach one over another halfe, ſo that the joint may fall out in the mids of a ſtone both above and under; a neceſſarie point to bee conſidered in the very mids of a wall if it be poſſible: if not ſo, yet in any caſe toward the ſides and ends thereof: as for the middle of the wall within, it would be well ſtuffed and filled with any rubbiſh, rammell, and broken ſtones. There is a kind of net-worke building in maſonry called Dictyotheton, ordinarily uſed in Rome, but ſubject it is to cracke and chinke. In ſum, a wall would be built by rule and ſquire, by line and levell, and anſwerable to the plumbe.

Chap. xxiii.

Of Ciſterns, and Lime: of ſundrie ſorts of Sand: of the tempering of Sand and Lime togither for mortar: of faults in Maſonrie: of Pargetting and other Rough-caſting: of the proportion of Columns and Pillars.

FOr to make good ciſterns which might hold water, the mortar that goeth thereto ought to be made of five parts of fine pure ſand and gravelly togither, to two parts of the moſt ſtrong and binding lime that may be gotten; provided alwais that the fragments of flint which are to be emploied herein, be ſmall, and exceed not the weight of one pound apeece: this done, not onely the bottome or paving, but the ſide-walls and the ends, ought to be rammed downe hard with yron beetles: howbeit, for to keepe good and cleare water, it were the better way to have alwaies two ciſterns togither, that in the former the water may ſettle & caſt downe all the grounds to the bottome, and ſo the cleare water onely paſſe into the other as if it were ſtrained through a fine colondre. As touching lime, *Cato Cenſorius* diſalloweth that which is made of divers ſtones, or of ſundrie colours: and to ſpeake a truth, white ſtones are better to make lime than the hard, and ſuch is more meet to lay ſtone withall in maſonrie; howbeit the lime which commeth of hollow and fiſtulous ſtones, is thought to ſerve better for to cover and parget walls. The lime which commeth of flint, is rejected both for the one and the other: alſo the lime made of ſtones digged out of the ground, is far better than of pebbles gathered from river ſides: that which commeth of milſtones is moſt profitable, for it is more fattie and glutinous than others. A ſtraunge and wonderfull matter it is, that any thing after it hath been once burnt and calcined, ſhould be ſet on fire againe with water. And thus much of Lime.

As touching Sand, there be three kinds thereof: the one is digged out of pitts in the ground, and this requireth a fourth part of lime to bee put unto it in making mortar: a ſecond commeth out of river ſides or the ſea ſhore, and this would have a third part: and if there be beſides another third part of potſherds beaten to powder and put thereto, the ſtuffe or mortar will be the better. Betweene the Apennine hill and the river Po, there is no ſand digged out of the ground, ne yet any ſea ſand at all. And verely, the greateſt reaſon that cities fall to decay and be ſo ruinat, is this, For that the mortar beeing robbed of the due proportion of lime, hath not that binding as it ought, and ſo the walls built therewith are not ſodred accordingly. Alſo, this would be obſerved, that mortar the elder that it is, the better it is found for building. Moreover, in the old laws which provide for the perpetuitie of houſes in auncient time, wee find it expreſſely ſet downe, That the undertaker to build a houſe at a certaine price, ſhall uſe no mortar under three yeers of age: and this was the reaſon that in thoſe daies a man ſhould not ſee any rough-caſt or parget to riſe or chawne illfavouredly as now they doe: and in truth, unleſſe there be laid upon walls three coats or couches (as it were) of mortar made with ſand and lime, and two courſes over them of other mortar made of marble grit and lime tempered togither, the walls will not be permanent nor otherwiſe faire and reſplendent as they ought to be: and looke where walls be dampiſh and given to ſweat a certaine ſalt humour or ſal-petre, it were verie well to lay a ground underneath of mortar made of the pouder of potſheards and lime wrought togither. In Greece they have a caſt by themſelves, to temper and beat in morters, the mortar made of lime and ſand wherewith they meane to parget and cover their walls, with a great wooden peſtill. As for the mortar made of marble-grit and lime togither, the true mark to know whether it have making ſufficient for building is this, namely, if it will not ſticke to the ſhovell that worketh it, but will come out of the heape neat and cleane: but contrariwiſe, in whiting and fret-worke, the lime being ſoked and wet in water, ought to cleave faſt like glew; neither ought it to bee tempered with water, but in the groſſe

A groſſe maſſe or lumpe. At Elis there ſtandeth a temple conſecrated to the honour of *Minerva*, wherein *Panneus*, the brother of *Phidias*, uſed a parget (as they ſay) which he tempered with milk
2 and ſaffron together: and therefore at this day, if a man wet his thumbe with ſpittle, and rub it againſt the wall, he ſhall perceive both the ſmell and taſt of ſaffron to remaine ſtill.

As touching pillars in any building, the thicker they ſtand one to another, the bigger & groſſer they ſeeme to be. Our architects and maſons make foure ſorts of them: For they ſay, that ſuch pillars as beare in compaſſe or thickneſſe toward the foot, as much as commeth to the ſixt part of the height, be called Dorique: thoſe that carie but a ninth part, are Ionique: ſuch as have a
2 ſeventh part, be Tuſcanique. And as for the Corinthian pillars, their proportion is anſwereable
3 to the Ionique; onely this is the difference, that the chapters of theſe Corinthian pillars ariſe in
B height to as much as the compaſſe at the baſe taketh up: in which regard they ſeeme more ſlender than others. As for the height of the Ionicke chapter, it is juſt the third part of the thickeneſſe. The proportion ordinarily in old time for the height of pillars, was anſwerable to the third
3 part of the breadth of the temple. In the temple of *Diana* at Epheſus, the invention was firſt practiſed to pitch the footſtall of pillars upon a quadrant or ſquare below, and to ſet chapiters upon their heads. And as touching the proportion, it was thought ſufficient in the beginning, if a columne contained in compaſſe or thickneſſe the eight part of the height; alſo, that the ſquare of the quadrant under the baſe, ſhould contain halfe the thickneſſe of the pillar: finally, that the pillars ſhould be ſmaller by one ſeventh part in the head, than at the foot. Over and beſides theſe pillars, there be others alſo of the Atticke faſhion, and thoſe be made with foure corners, and the
C ſides are equall.

Chap. xxiiii.

The medicinable properties of Lime. Alſo, as touching the Maltha uſed in old time, and of Plaſtre.

MVch uſe there is of Lime alſo even in Phyſicke: but then there muſt be choſen that which is quicke and unqueint. Such lime is caufticke, diſcuſſive, and extractive: the ſame alſo is proper to repreſſe corroſive ulcers that begin to ſpread and run far. If the ſaid lime bee tempered with vinegre and oile of roſes, it maketh an excellent healing plaſtre, which will skin
D up a ſore cleane. The ſame if it be incorporat with ſwines greace or liquid roſin and honey toge-
3 ther, ſerveth alſo to ſet bones in joint: & the ſame compoſition is likewiſe good for the kings evill.

Concerning Maltha, it was wont to be made of quicke and new lime: for they tooke the lime-ſtone and quenched it in wine, which done, preſently they punned it with ſwines greaſe and figs; hereof they made ordinarily two couches: and being thus tempered and laid, it was thought to be the faſteſt whitening that could be deviſed, and in hardneſſe to exceed a ſtone. But looke whatſoever is to bee pargetted with this Maltha or morter thus prepared, ought firſt to bee rubbed throughly with a ſize of oile.

Of neare affinitie unto Lime is Plaſtre, whereof bee many kinds: for there is a kind of plaſtre artificiall, and namely in Syria and about Thurium, made of ſtone calcined in manner of lime:
E and there is of it that is digged out of the ground naturally, as namely, in the Iſle Cyprus, and about the Perrhœbians. Neare Thymphæa, a citie in Ætolia, it lieth very ebbe and as it were even with the ground. As for the ſtone that is to be burnt for it, the ſame ought to be not unlike to the ſtone Alabaſtrites, or at leaſtwiſe to that which ſtandeth much upon marble. In Syria they chuſe for this purpoſe the hardeſt, and they burne the ſame with Cow dung, that it may the ſooner bee calcined. But the beſt plaſtre of all other is known (by expetience) to be made of the Talc or the glaſſe ſtone aforeſaid, or at leaſtwiſe of ſuch as hath the like flakes as Talc. Plaſtre muſt be wrought and driven preſently whiles it is wet and will run, for nothing in the world will ſo ſoone thicken and drie: and yet when it hath been uſed alreadie, it may be beaten againe to pouder, and ſerve the turne in new workes. Plaſtre ſerveth paſſing well to white wals or ſeeling; alſo for to make lit-
F tle images in fretworke, to ſet forth houſes; yea, and the browes of pillars and wals, to caſt off rain. To conclude, I may not forget that which befell to *C. Proculeius*, a great favourit and follower of *Auguſtus Cæſar*, who in an extreame fit of the paine of the ſtomacke, dranke plaſtre, and ſo killed himſelfe wilfully.

Chap.

G

Chap. xxv.

Sundrie kinds of paved floores: and when at first they began to be used at Rome. Of open terraces paved. Of Greekish pavements. And the first invention of arched or embowed roufes.

THe devise of paved floores arose first from the Greeks, who made them with great art, and curiously, in regard of the painting in sundrie colours which they bestowed therupon. But these brave painted floores were put downe, when pavements made of stone and quarrels came in place: The most famous workman in this kind, was one *Sosus*, who at Pergamus wrought that rich pavement in the common hall, which they call Asaroton œcon, garnished with brickes H
or small tiles enealed with sundrie colours: and hee devised, that the worke upon this pavement should resemble the crums and scraps that fell from the table, and such like stuffe as commonly is swept away, as if they were left still by negligence upon the pavement. Among the rest, wonderfull was his handiworke there, in pourtraying a Dove drinking, which was so lively represented as if the shaddow of her head had dimmed the brightnesse of the water: there, should a man have seene other Pigeons sitting upon the brim of the water-tankerd, pruning themselves with their bils, and disporting in the Sunneshine. The old paved floores, which now also are much used, especially under roufe and couvert, howsoever they came from barbarous countries, were in Italie first patted and beaten downe with heavie rammers; as we may collect by the very name it selfe, Pavement, which commeth of Pavire, *i.* to ram downe hard. As for that manner of paving with I
small tiles or quarrels engraven, the first that ever was seene at Rome, was made within the temple of *Iupiter Capitolinum*, and not before the third Punicke warre begun. But ere the Cimbrians warres began, such pavements were much taken up in Rome, and men tooke great delight and pleasure therein, as may appeare sufficiently by that common verse out of *Lucilius* the Poët.

Ante Pavimenta æta emblemata vermiculata, &c.

Before the pavements checker-wrought in painted Marquettrie, &c.

As touching open galleries and terraces, they were devised by the Greekes, who were wont to cover their houses with such. And in truth, where the countrey is warme, such devises doe well: K
howbeit, they are dangerous and deceitfull, where there is store of rain and frost. But for to make a terrace so paved, necessarie it is first to lay two courses of bourds or plankes underneath, and those crosse and overthwart one the other: the ends of which plankes or bourds ought to be nailed, to the end they should not twine or cast aside; which done, take of new rubbish two third parts, and put thereto one third part of shards stamped to pouder, then with other old rubbish mix two five parts of lime, and herewith lay a couch of a foot thickneſſe, and bee sure to ram it hard together. Over which there must be laid a coat or course of mortar, six fingers bredth thick: and upon this middle, couch broad square paving tiles or quarrels, and the same ought to enter at least two fingers deepe into the said bed of morter. Now for that this floore or pavement must rise higher in the top, this proportion is to bee observed, that in every ten foot it gaine an inch L
and a halfe. After which, the pavement thus laid is to be plained & polished diligently with some hard stone: and above all, regard would be had, that the plankes or bourded floore were made of Oke. As for such as doe cast or twine any way, they be thought naught. Moreover, it were better to lay a course of flint or chaffe betweene it and the lime, to the end, that the said lime might not have so much force to hurt the bourd underneath. Requisit also it were to put underneath round pebbles among. After the like manner bee the spiked pavements made of flat tiles & shards. And here I must not forget one kind of paving more, which is called Grecanicke, the manner whereof is thus: The Greekes after they have well rammed a floore which they meane to pave, lay therupon a pavement of rubbish, or else broken tileshards; and then upon it, a couch of charcoale well beaten and driven close together, with sand, lime, and small cendres well mixed together: which M
done, they doe lay their paving stuffe to the thickneſſe of halfe a foot, but so even, as the rule and square will give it; and this is thought to be a true earthen paved floore of the best making. But if the same be smoothed also with a hard slicke stone, the whole pavement will seeme all blacke. As for those pavements called Lithostrata, which bee made of diverse coloured squares couched in

workes,

A workes, the invention began by *Syllaes* time, who used thereto small quarrels or tiles at Prenesse within the temple of *Fortune*, which pavement remaineth to be seene at this day. But in processe of time pavements were driven out of ground-floores, and passed up into chambers, and those were seeled over head with glasse: which also is but a new invention of late devised: for *Agrippa* verely in those baines which hee caused to be made at Rome, annealed all the potterie worke that there was, and enamelled the same with diverse colours: whereas all others hee adorned onely with whiting: and no doubt he would never have forgotten to have arched them over with glasse if the invention had ben practised before, or if from the wals and partitions of glasse which *Scaurus* made upon his stage, as I said before, anyone had proceeded also to rouse chambers therwith. But since I am fallen upon the mention of glasse, it shall not bee impertinent to discourse some-
B what of the nature thereof.

Chap. xxvi.

The first invention of Glasse, and the manner of making it: Of a kind of Glasse, called Obsidianum. Also of sundrie kinds of Glasse, and those of manie formes.

THere is one part of Syria called Phœnice, bordering upon Iurie, which at the foot of the mount Carmell, hath a meere named Cendevia; out of which the river Belus is thought to spring, and within five miles space, falleth into the sea, neare unto the colonie Ptolemais:
C This river runneth but slowly, and seemeth a dead or dormant water, unwholesome for drinke, howbeit, used in many sacred ceremonies with great devotion; full of mud it is, and the same very deepe ere a man shall meet with the firme ground: and unlesse it be at some spring tide, when the sea floweth up high into the river, it never sheweth sand in the bottome; but then, by occasion of the surging waves, which not onely stirre the water, but also cast up and scoure away the grosse mud, the sand is rolled too and fro, and being cast up, sheweth very bright and cleare, as if it were purified by the waves of the sea: and in truth, men hold opinion, That by the mordacitie and astringent qualitie of the salt water, the sands become good, which before served to no purpose. The coast along this river which sheweth this kind of sand, is not above halfe a mile in all, and yet for many a hundred yeare it hath furnished all places with matter sufficient to make glasse. As
D touching which devise, the common voice and fame runneth, That there arrived sometimes certaine marchants in a ship laden with nitre, in the mouth of this river, and beeing landed, minded to seeth their victuals upon the shore and the very sands: but for that they wanted other stones, to serve as trevets to beare up their pans and cauldrons over the fire, they made shift with certaine peeces of sal-nitre out of the ship, to support the said pans, and so made fire underneath: which being once afire among the sand and gravell of the shore, they might perceive a certaine cleare liquor run from under the fire in very streames, and hereupon they say came the first invention of making glasse. But afterwards (as mans wit is very inventive) men were not content to mix nitre with this sand, but began to put the Load-stone among, for that it is thought naturally to draw the liquor of glasse unto it, as well as yron. Then they fell likewise to calcine and burne in
E many other places shining gravell stones, shels of fishes, yea, and sand digged out of the ground, for to make glasse therewith. Moreover, diverse authours there bee who affirme, That the Indians use to make glasse of the broken peeces of Crystall, and therefore no glasse comparable to that of India. Now the matter whereof glasse is made, must be boiled or burnt with a fire of drie wood, and the same burning light and cleare without smoake, and there would be put thereto brasse of Cypros, and nitre, especially that which commeth from Ophyr. The furnace must bee kept with fire continually, after the manner as they use in melting the ore of brasse. Now the first burning yeeldeth certaine lumpes of a fattie substance, and blackish of colour. This matter is so keene and penetrant whiles it is hot, that if it touch or breath upon any part of the bodie, it will pierce and cut to the very bone ere one be aware or doe feele it. These masses or lumpes bee put into the fire
F againe, and melted a second time in the glasse houses, where the colour is given that they shall have: and then some of it with blast of the mouth, is fashioned to what forme or shape the workman will: other parcels polished with the Turners instrument, and some againe engraven, chased, and embossed in manner of silver plates: in all which feats, the Sidonians in times past were famous artificers: for at Sidon were devised also mirroirs or looking glasses. Thus much as touching

ching the antique manner of making glasse. But now adaies there is a glasse made in Italie of a G
certaine white sand, found in the river Vulturnus for six miles space along the shore towns, from the mouth where he discharged himselfe into the sea, and this is betweene Cumes and the lake Lucrinus. This sand is passing soft and tender, wherby it may be reduced very easily into fine pouder, either to be beaten in morter or ground in mill: to which pouder the manner is to put three parts of nitre, either in weight or measure; and after it is the first time melted, they use to let it passe into other furnaces, where it is reduced into a certaine masse, which, because it is compounded of sand and nitre, they call Ammonitrum: This must be melted again, and then it becommeth pure glasse, and the very matter indeed of the white cleare glasses. And in this sort throughout France and Spaine the manner is to temper their sand, and to prepare it for the making of glasse. More-
over, it is said, That during the reigne of *Tiberius* the Emperor, there was devised a certaine tem- H
per of glasse, which made it pliable and flexible to wind and turne without breaking: but the* artificer who devised this, was put downe, and his worke-house, for feare least vessels made of such glasse should take away the credit from the rich plate of brasse, silver, and gold, and make them of no price: and verely, this bruit hath run currant a long time (but how true, it is not so certain.) But what booted the abolishing of glasse-makers, seeing that in the daies of the Emperour *Nero* the art was growne to such perfection, that two drinking cups of glasse (and those not big, which they called Pterotos) were sold for 6000 sesterces.

*It is said, that whé a suppliant vnto this Emperor came before him, and shewed unto him a glasse whole & sound which had ben of purpose broken before, hee causedhim presently to be put to death. *Cæl. Rhodig. lib. 20. cap. 30.*

There may be raunged among the kinds of glasses, those which they call Obsidiana, for that they carie some resemblance of that stone, which one *Obsidius* found in Æthyopia; exceeding blacke in colour, otherwhiles also transparent: howbeit, the sight therein is but thicke and dus- I
kish. It serveth for a mirroir to stand in a wall, and in stead of the image yeeldeth backe shaddows. Of this kind of glasse many have made jewels in manner of precious stones: and I my selfe have seene massive pourtraitures made thereof, resembling *Augustus* late Emperor of famous memorie, who was wont to take pleasure in the thickenesse of this stone, insomuch as hee dedicated in the temple of *Concord* for a straunge and miraculous matter, foure Elephants made of this Obsidian stone. Also, *Tiberius Cæsar* sent backe againe to the citizens of Heliopolis a certain image of prince *Menelaus*, found among the moveable goods of one who had been lord governor in Ægypt, which he had taken away out of a temple, among other ceremoniall reliques: & the said statue was all of the Iaiet, called Obsidianus. And by this it may appeare, That this matter began long time before to be in use, which now seemeth to be renued again and counterfeited by glasse K
that resembleth it so neare. As for the said Obsidian stone, *Xenocrates* writeth, That it is found naturally growing among the Indians; within Samnium also in Italie, and in Spain along the coast of the Ocean. Moreover, there is a kind of Obsidian glasse, with a tincture artificiall, as blacke as Iaiet, which serveth for dishes and platters to hold meat: like as other glasse, red throughout, and not transparent, called for that colour Hæmatinon. By art likewise there be vessels of glasse made white and of the colour of Cassidonie, resembling also the Iacinct and Saphire, yea, & any other colours whatsoever. In summe, there is not any matter at this day more tractable and willing either to receive any forme or take a colour, than glasse: but of all glasses, those be most in request and commended above the rest, which be white, transparent, and cleare throughout, comming as neare as it is possible to Crystall. And verely, such pleasure doe men take now adaies in drinking L
out of faire glasses, that they have in manner put downe our cups and boules of silver or gold. But this I must tell you, that this ware may not abide the heat of the fire, unlesse some cold liquor were put therein before: and indeed, hold a round ball or hollow apple of glasse full of water against the Sunne, it will be so hot, that it is ready to burne any cloth that it toucheth. As for broken glasses, well may they be glued and sodered againe by a warme heat of the fire, but melted or cast againe they cannot be whole, unlesse a man make a new furnace of peeces broken one from another: like as we see there be made counting rundles thereof, which some call Abaculos, whereof some are of diverse and sundrie colours. Moreover, this would be noted, That if glasse and sulphur be melted together, they will souder and unite into a hard stone. To conclude, having thus dis-
coursed of all things that are knowne to be done by wit or art, according to the direction of Na- M
ture, I cannot chuse but marvell at fire and the operations thereof, seeing that nothing in a manner is brought to perfection but by fire; and thereby any thing may be done.

CHAP.

Chap. xxvii.

The wonderfull operations of Fire: the medicinable properties that it hath: and the prodigious ſignifications obſerved thereby.

Fire receiveth ſundry ſorts of ſand and earth: out of which, it doth extract and melt one while glaſſe, another while ſilver, in this place vermillion, in that diverſe ſorts of lead and tin; ſometime painters colours, and another while matters medicinable. By fire, ſtones are reſolved into braſſe; by fire yron is made, and the ſame is tamed likewiſe therewith: fire burneth and calcineth ſtone, wherof is made that morter which bindeth all work in maſonry. As for ſome things, the more they be burnt, the better they are; and of one and the ſame matter, a man ſhall ſee one ſubſtance engendred in the firſt fire, another in the ſecond, and another alſo in the third. As for the coales that goe to theſe fires, when they be quenched they begin to have their ſtrength, and after they be thought extinct and dead they are of greateſt vertue. This element of Fire is infinit, and never ceaſeth to be working, inſomuch, as it is hard to ſay whether it conſume more than it engendreth. The very fire alſo is of great effect in Phyſicke: for this is knowne for certaine by experience, that there is not a better thing in the world againſt the peſtilence (which is occaſioned by the darkneſſe of the Sun and the want of cleare light from him) than to make fires & perfumes in diverſe ſorts, either to clarifie or to correct the aire: according as *Empedocles* and *Hippocrates* have ſhewed and teſtified in many places. *M. Varro* writeth, That fire is good for convulſions, crampes, and contuſions of the inward parts: and for this purpoſe I will alleadge the very words that he uſeth: The old Latine word *Lix* (quoth he) is nothing elſe but the aſhes of the hearth: and hereupon commeth *Lixivus Cinis*, *i.* lie aſhes, which beeing drunke, is medicinable: as wee may ſee by fencers and ſword-plaiers, who after they have done their flouriſhing and be readie to enter into fight at ſharpe, refreſh themſelves with this potion. Furthermore, it is ſaid, That a coale of Oke wood being reduced into aſhes and incorporat with honey, cureth the carbuncle, which is a peſtilent diſeaſe, wherof two noblemen of Rome (both Conſuls in their time) died of late, according as I have alreadie ſhewed. See the wonderfull power in Nature, that things deſpiſed and of no account (as aſhes, and coales) ſhould affourd remedies for the health of man! But before I make an end of Fire, and the hearth where it burneth, I will not overpaſſe one admirable example commended unto us by the Romane Chronicles: in which wee read, That during the reigne of *Tarquinius Priſcus*, king of Rome, there appeared all on a ſuddaine upon the hearth where hee kept fire, out of the very aſhes, the genitall member of a man: by vertue whereof, a wench belonging unto *Tanaquil* the queene as ſhe ſat before the ſaid fire, conceived and aroſe from the fire with child. And of this conception came *Servius Tullus*, who ſucceeded *Tarquin* in the kingdom. And afterwards, whiles he was a young child and lay aſleepe within the court, his head was ſeene on a light fire, and thereupon he was taken to be the ſon of the domeſticall ſpirits of the chimney. Which was the reaſon, that when he was come to the crowne, he firſt inſtituted the Compitalia, and the ſolemne games in the honour of ſuch houſe-gods or familiar ſpirits.

THE

THE XXXVII. BOOKE OF THE HISTORIE OF NATVRE,

WRITTEN BY C. PLINIVS SECVNDVS.

¶ The Proëme.

TO the end that nothing might be wanting to this hystorie of mine concerning Natures workes, there remaine behind nothing but precious stones, wherein appeareth her majestie, brought into a narrow and streight roume: and to say a truth, in no part of the world is she more wonderfull, in many respects: whether you regard their varietie, colours, matter, or beautie; which are so rich and precious, that many make conscience to seale with them, thinking it unlawfull to engrave any print in them, or to deminish their honour and estimation by that meanes. Some of them are reckoned inestimable, or valued at all the goods of the world besides, insomuch as many men thinke some one precious stone or gem sufficient, to behold therein the very perfection of Nature and her absolute worke. Touching the first invention of wearing such stones in jewels, and how it tooke first root and grew afterwards to that height as all the world is in admiration thereof, I have alreadie shewed in some sort in my Treatise of gold and rings. And yet I will not conceale from you that which Poets doe fable of this matter, who would beare us in hand, that all began at the rocke Caucasus, whereunto Prometheus *was bound fast, who was the first that set a little fragment of this rocke within a peece of yron, which being done about his finger, was the ring, and the foresaid stone the gem: whereof the Poets make much foolish moralization.*

Chap. 1.

Of the rich precious stones of Polycrates *the Tyrant, and king* Pyrrhus. *The first lappidaries or cutters in precious stones. And who was the first that had a case of rings and gems in Rome.*

PRometheus having given this precedent, brought other stones into great price and credit, insomuch as men were mightily enamoured upon them: and *Polycrates* of Samos, the puissant prince and mightie monarch over all the Islands and coasts thereabout, in the height of his felicitie & happie estate, which himselfe confessed to be excessive; beeing troubled in his mind that he had tasted of no misfortune, and willing after a sort to play at fortunes game, one while to win and another while to loose, & in some measure to satisfie her inconstancie, was persuaded in his mind that hee should content her sufficiently by the voluntarie losse of one gem that he had, and which hee set so great store by: thinking verely, that this one hearts greefe for parting from so precious a jewell was sufficient to excuse & redeeme him from the spightfull envie of that mutable goddesse. Seeing therefore the world to come upon him still, and no soure sorrows entermingled with his sweet delights, in a wearinesse of this continuall blessednesse he embarked himselfe and sailed into the deepe, where wilfully hee flung into the sea a ring from his finger, together with the said stone so precious, set therein. But see what ensued? A mightie fish, even made as a man would say for the king,

A king, chanced to ſwallow it down as if it had ben ſome bait; which being afterwards caught by fiſhers, & thought to be of an extraordinarie bigneſſe, was brought as a preſent into the kings pallace, and ſo ſent into the kitchen; where the cooke found within the bellie therof the foreſaid ring of his lords and maſters. Oh the ſubtiltie of ſlie Fortune, who all this while twiſted the cord that another day ſhould hang *Polycrates*! This ſtone (as it is well known) was a Sardonyx: & if we may beleeve it, the verie ſame it is, which at Rome is ſhewed in the temple of *Concord*, where *Auguſta* the Empreſſe dedicated it as an oblation, enchaſed within a golden horne: and verely if it be the ſame, one of the leaſt Sardonyches it is among many other there which be preferred before it.

Next to this ſtone of *Polycrates*, there goeth a royall name of the gem which *Pyrrhus* K. of Al-
B banie had; him I mean, who warred againſt the Romans: for (by report) an Agath he had, wher-
in a man might ſee the nine Muſes, and *Apollo* with his harpe, lively repreſented, not by art and mans hand, but even naturally imprinted: for the veins and ſtrakes of the ſtone were ſo diſpoſed, that a man might diſtinguiſh every one of the Muſes aſunder, and ech one diſtinguiſhed by their ſeverall marks and ornaments. Setting aſide theſe two gems above-named, we do not read in authors, of any great reckoning made of ſuch jewels; unleſſe wee ſpeake of one *Iſmenias* a famous minſtrell, who had the name to weare many of them ordinarily about him, and thoſe verie gay and glittering: and ſurely his vanitie that way was ſuch, that there goeth a notable tale of him; for meeting upon a time in a merchants hand with an Emeraud in the Iſland Cyprus, wherein ladie *Amymone* was engraven, and wherof the price was at firſt held at ſix deniers in gold, he made no more adoe but cauſed the mony to be paid preſently: but the merchant being a man of ſome
C conſcience, and thinking indeed the price too high, gave two of them back againe unto *Iſmenias*: whereat being ill apaid, I beſhrew you, (qd. he) for this bating of the mony hath much empaired the worth of the ſtone. This *Iſmenias* (as it is thought) was the firſt who brought up the order, that all ſuch muſicians and minſtrels as himſelfe, ſhould be knowne by their gems, and eſteemed skilfull in that art according as they were ſet out therewith more or leſſe. And in verie truth, *Dionyſodorus* a great minſtrell, who lived in thoſe daies with him, uſed likewiſe to bee in his chaunge and varietie of pretious ſtones, becauſe hee would not ſeeme any way to come behind *Iſmenias*. There was a third alſo as vaine as the beſt, a muſician in that age named *Nicomachus*, who loved to have a number of gems about him, but no judgement hee had in the world to chuſe them. Theſe examples which offer themſelves by fortune to me in the beginning of this my book, may
D ſerve to pull downe their plumes who ſtand ſo much upon the vaine oſtentation of theſe ſtones, when they ſhall ſee how all the pride that they take herein, ſmelleth but of the vaine humour of ſome odd minſtrels. But to return againe unto *Polycrates* his gem, which at this day is to be ſeen within the temple of *Concord*. And not onely in the time of *Iſmenias*, but alſo many yeers after, it ſhould ſeem that Emerauds were wont to be cut and engraven. This opinion alſo may be confirmed by the act and edict of K. *Alexander* the Great, which forbad expreſly, That no man ſhould be ſo hardie as to engrave his image in pretious ſtone, but *Pyrgoteles*; who (no doubt) was ſimply the beſt in that art. After him, *Apollonides* and *Cronius* were of great fame: & principally one *Dioſcorides*, who counterfeited in ſtone the lively form of *Auguſtus Cæſar*, the which ſerved the Emperors his ſucceſſors as a ſignet to ſeale withall. *Sylla* Dictator was wont alwais to ſigne with a ſeale
E repreſenting K. *Iugurtha*, tied & bound as he was yeelded unto him. We read in Chronicles alſo, that a certaine Spaniard of Intercatia, whoſe father *Scipio Æmilianus* ſlew in ſingle fight, uſed afterwards no other ſeale but that which repreſented this combat: wherupon grew this merrie conceit of *Stilo Præconinus*, who asked, What this Spaniard would have done if his father had killed *Scipio*? *Auguſtus* late Emperor of worthy memorie, uſed at the beginning to ſeale with the image Sphinx upon his ſignet: and verely in the casket of his mothers jewels, two of theſe hee found ſo like one unto the other, that one could not be knowne and diſcerned from the other: and as hee was wont to weare one of them about him wherſoever he went, ſo in his abſence (during the civile warrs which he levied againſt *M. Antonius*) his friends who managed his affairs at Rome, ſigned with the other Sphinx, all thoſe letters and edicts which paſſed in his name, for the performance
F of ſome demaunds which thoſe times did require. And from hence it came, that thoſe who received any ſuch letters or edicts, containing ſome matter of difficultie, were wont pleaſantly & merrily to ſay, That the ſaid Sphinx came ever with ſome hard riddle or other that could not be expounded. Moreover, the Frog, wherewith *Mæcenas* uſed to ſeale, was alwaies terrible unto thoſe who received any letters ſigned therewith; for evermore they were ſure upon the receit of it to

make some paiment of impost or taxes levied upon them. But *Augustus Cæsar*, to avoid the ob- G
loquie that arose by his Sphinx, gave over sealing therewith, and signed ever after with the image of K. *Alexander* the Great.

As touching a cabinet or case for many rings and such jewels, which they call by a forreine Greeke name Dactyliotheca, the first that ever was knowne to have any such at Rome, was *Scaurus*, whose mother *Sylla* the Dictatour married: and for a long time there was no other besides; untill *Pompeius* the Great met with the jewell-casket of King *Mithridates*, which among many other rich oblations, he presented in the Capitoll; and by the relation of *M. Varro* and other approoved authors of that time, it was much preferred before that of *Scaurus*: in imitation of whose example, *Cæsar* Dictatour consecrated in the temple of *Venus Genitrix*, six such like cabi- H
nets or caskets of rings and jewels: and *Marcellus*, sonne to *Octavia*, dedicated one in the temple Palatine of *Apollo*. Finally, this is to be observed, that the said victorie of *Pompeius* which he atchieved over K. *Mithridates*, set mens teeth at Rome a watering after pearls and pretious stones; like as the conquests obtained by *L. Scipio* and *Cn. Manlius*, brought them into love with silver plate curiously enchased and embossed: also with rich hangings of cloth of gold, silver, and tissue, togither with beds and tables of brasse; even as the brasen statues and vessels of Cotinthian brasse, and the curious painted tables, came in request upon the victorie that *L. Mummius* gained over Achæa.

Chap. II.

I *Of Iems and pretious stones that* Pompeius *shewed in his triumph. The nature of Crystall, and the medicinable properties thereof: the sumptuous and superfluous expences in vessels made of it. The first invention of Cassidoine vessels, and the excesse that way: the nature and properties of those Cassidoins. And what untruths the writers in old time have delivered as touching Amber.*

TO the end that it may appeare more evidently, what the triumph of *Pompey* wrought in this respect, I will put downe word for word what I find upon record in the registers that beare witnesse of the actes which passed during those triumphs. In the third triumph therefore which was decreed unto him (for that he had scoured the seas of pyrats and rovers, reduced Na- K
tolia and the kingdome of Pontus under the dominion of the Romans, defeated kings and nations, according as I have declared in the seventh booke of this my historie) he entred Rome the last day of September, in the yeere when *M. Piso* and *M. Messala* were Consuls, on which day there was carried before him in shew, a chesse-bourd with all the men, and the same bourd was made of two pretious stones, and yet it was two foot broad and four foot long: and least any man should doubt hereof and thinke it incredible, considering that no jems at this day come neare thereto in bignesse, know he, That in this triumph hee shewed a golden moone weighing thirtie pounds, three dining-tables also of gold, other vessell likewise of massie gold and pretious stones as much as would garnish nine cupbourds; three images of beaten gold representing *Minerva*, *Mars*, and *Apollo*; coronets made of stones to the number of three and thirtie; a L
mountaine made of gold foure square, wherein a man might see red deere, lyons, fruit-trees of all sorts, and the whole mountain environed and compassed all about with a vine of gold: moreover, an oratorie or closet consisting of pearle, in the top or louver whereof there was a clocke or horologe: He caused also to be borne before him in a pompous shew, his owne image made of pearls; the pourtraiture (I say) of that *Cn. Pompeius*, whome regall majestie and ornaments would have better beseemed; and that good face and venerable visage so highly honoured among all nations, was now all of pearls; as if that manly countenance and severitie of his had been vanquished, and roiotous excesse and superfluitie had triumphed over him, rather than hee over it. O *Pompey*, ô *Magnus*, how could this title and surname *Le-grand*, have continued among those nations, if thou hadst in thy first victorie triumphed after this manner! What, *Magnus*, were M
there no meanes else but to seeke out pearles, (things so prodigall, superfluous, and devised for women, and which it had not beseemed *Pompey* once to weare about him) and therewith to pourtray and counterfeit thy manly visege! And was this the way indeed to have thy selfe seeme pretious? doth not that pourtraiture come nearer unto thee and resemble thy person farre liker,

which

A which thou didst cause to be*erected upon the top of the Pirenæan hills? Certes, a foule shame and ignominious reproch it was to be shewed in this manner; nay, to say more truly, a woonderfull prodigie it was, presaging the heavie ire of the gods; for so men were to beleeve and evidently to conceive thereby, that even then and so long before, the head of *Pompey* made of orient pearle, even the richest of the Levant, should bee so presented without a bodie. But setting this aside, how manlike was all the rest of his triumph, and how answerable to himselfe? For first and foremost, given freely by him unto the chamber of the cittie, there were a thousand talents: secondly, upon his lieutenants and treasurers of the campe, who had performed so good service in defending the sea-coasts, hee bestowed two thousand Sestertia apeece: thirdly, to everie souldior who accompanied him in that voiage, he allowed fiftie Sestertia. Well, this superfluitie yet of *Pompeies* triumph, served in some sort to excuse *Caius Caligula* the Emperour, and to
B make his delicacie and excesse to bee more tollerable; who over and besides all other effeminat tricks and womanly devises, whereof hee was full, used to draw upon his leggs little buskins or startups made of pearle: *Pompeys* precedent (I say) in some measure justified *Nero* the Emperor, who made of rich and faire great pearls, the sceptars and maces, the visors also and masks which players used upon the stage, yea and the verie bed-roums which went with him as hee travailed by the way: So as we seeme now to have lost that vantage and right which wee had to find fault with drinking-cups enriched with pearls, yea and much other houshold stuffe and implements garnished therewith, since that whersoever we goe from one end of the house to the other, wee seeme to passe through rings, or such jewels at leastwise which were woont to beautifie our fin-
C gers onely: for is there any superfluitie else, but in regard and comparison hereof, it may seeme more tollerable and lesse offensive? But to returne unto the triumph of *Pompey*: this victorie of his, brought into Rome first our cups and other vessels of Cassidoine; and *Pompey* himselfe was the first who that verie day of his triumph presented unto *Iupiter Capitolinus*, six such cups: and presently from that time forward men also began to have a mind unto them, in cupbourds, counting tables, yea and in vessell for the kitchin, and to serve up meat in: and verely, from day to day the excesse herein hath so farre overgrowne, that one great Cassidoine cup hath been sold for
* fourescore sesterces, but a faire and large one it was, and would containe well three sextars [*id est*, halfe a wine gallon.] There are not many yeers past, since that a noble man who had been Consull of Rome, used to drinke out of this cup; and notwithstanding that in pledging upon a time
D a ladie whom hee fancied, he bit out a peece of the brim thereof (which her sweet lips touched) yet this injurie done unto it, rather made it more esteemed and valued at a higher price; neither is there at this day a cup of Cassidoine more pretious or dearer than the same. But as touching other excesse of this personage, and namely how much he consumed and devoured in superfluities of this kind, a man may estimat by the multitude of such Cassidoine vessell found in his cabinet after his death, which *Nero Domitius* tooke away perforce from his children: and in truth, such a number there were of them, that being set out to the shew, they were sufficient to furnish and take up a peculiar theatre, which of purpose he caused to bee made beyond the Tyber in the gardens there: and enough it was for *Nero* to behold the said theatre replenished with people at the plaies which he exhibited there in the honor of his wife the Empresse *Poppæa*, after one child-
E bed of hers, where among other musicians, hee sung voluntarie upon the stage before the plaies began. I saw him there my selfe to make shew of many broken peeces of one cup which hee caused to be gathered togither full charily, as I take it, to exhibit a spectacle whereat the world should lament and crie out in detestation of Fortune, no lesse ywis, than if they had beene the bones and reliques of king *Alexander* the Great his corps to bee laid solemnly in his sepulchre; and herein he pleased himselfe not a little. *Titus Petronius*, late Consull of Rome, when hee lay at the point of death, called for a faire broad-mouthed cup of Cassidoine, which had cost him before-time * three hundred thousand sesterces, and presently brake it in peeces in hatred and despight of *Nero*, for feare least the same prince might have seazed upon it after his decease, and therewith furnished his owne bourd. But *Nero* himselfe (as it became an Emperour indeed) went
F beyond all others in this kind of excesse, who bought one * drinking cup that stood him in three hundred thousand sesterces; a memorable matter (no doubt) that an Emperour, a father and patron of his country, should drink in a cup so deare. But before I proceed any farther, it is to be noted, that wee have these rich Cassidoin vessels [called in Latin Murrhina] from out of the Levant: for found they be in many places of the East parts, and those otherwise not greatly renowmed, but

* That is to say, columns & pillars, wherin were engraven the names of citties and nations subdued by him in those voyages into Spaine.

* *Octoginta sestertios*: where you must thinke that be useth *sestertium* in the neuter gender, which is a thousand *sestertij*: for otherwise 80 sesterces come but to 20 deniers Romain, and that is about 12 *sh.* 6 *d.* sterling: too much under the price of such a jewell: and yet some read for *sestertijs*, [*talentis*,] and that is as much above the proportiō, for one talent was esteemed at 50000 sesterces.

* *i.* The value of 6 talents.

* *Trecentis sestertijs capidem*: I suspect this place; for hee should have inferred a greater sum than that before of *T. Petronius*: or else *Capis* is a smaller pecce than *Trulla*: & that should not seeme, if it be derived *à capiendo*, & so called for the capacitie; but rather of the ears, wherby a man may take hold thereof.

but most within the kingdome of Parthia: howbeit, the principall come from out of Carmania. G
The stone whereof these vessels be made, is thought to be a certaine humour thickened and baked as it were within the ground by the naturall heat thereof. In no place shall a man meet with any of these stones larger than small tablements of pillars or counting-bourds; and seldome are they so thicke as to serve for such a drinking cup as I have spoken of alreadie: resplendent they are in some sort, but that brightnesse is not pearcing, and to say a truth, it may bee called rather a polished glosse or lustre, than a radiant and transparent clearenesse: but that which maketh them so much esteemed, is the varietie of colours; for in these stones a man shall perceive certaine veins or spots, which as they be turned about resemble divers colours enclining partly to purple and partly to a white: hee shall see them also of a third colour composed of them both, resembling the flame of fire: Thus they passe from one to another as a man holdeth them; in so H
much as their * purple seemeth to stand much upon white, and * their milkie white to beare as much upon the purple. Some esteemed those Cassidoine or Murrhine stones richest, which represent as it were certaine reverberations of sundrie colours meeting all togither about their edges and extremities, such as wee observe in rainbowes: others are delighted with certaine fattie spots appearing in them; and no account is made of them which shew either pale or transparent in any part of them, for these be reckned great faults and blemishes. In like manner, if there be seene in the Cassidoine any spots like corns or graines of salt: if it containe resemblances of werts, although they beare not up but lie flat as they doe many times in our bodies: finally, the Cassidoine stones are commended in some sort also for the smell that they doe yeeld.

* *Purpura candescente.*
* *Aut lacte rubescente.*

As touching Crystall, it proceedeth of a contrarie cause, namely of cold; for a liquor it is I
congealed by extreame frost in manner of yce; and for proofe hereof, you shall find crystall in no place els but where the winter snow is frozen hard: so as we may boldly say, it is verie yce and nothing else, whereupon the Greeks have give it the right name Crystallos, *i.* Yce. We have this crystall likewise out of the East parts, but there is none better than that which India sendeth unto us. Ingendred it is also in Asia, and namely about Alabanda, Ortosia, and the mountains adjoyning, but in request it is not no more than that which is found in Cyprus: howbeit, there is excellent crystall within Europe, and namely upon the crests of the Alps. King *Iuba* writeth, that
in a certaine Island lying within the red sea over-against Arabia named * Neron, there groweth crystoll: as also in another thereby, which yeeldeth the * Topase pretious stone; where, *Pythagoras* (lieutenant or governour under king *Ptolome*) digged forth a peece which carried a cubit K
in length. *Cornelius* * *Bocchus* affirmeth, that in Portugall upon certaine exceeding high mountaines, where they sinke pits for the levell of the water, there bee found great crystall quarters or masses of a woonderfull weight. But marveilous is that which *Xenocrates* the Ephesian reporteth, namely, that in Asia and Cyprus there be peeces of crystall turned up with the verie plough, so ebb it lieth within the ground; an incredible thing, considering that before-time no man beleeved that ever it could bee found in any place standing upon an earthly substance, but onely among cliffes and craggs. It soundeth yet more like a truth, which the same *Xenocrates* writeth, namely, that often times it is caried downe the streame running from the mountains. As for *Sudines*, hee saith confidently, that crystall is not engendred but in places exposed onely to the South: and verely this is most true, for you shall never meet with it in wateriſh countries lying L
Northerly, be the climat never so cold, no though the rivers be frozen to an yce even to the verie bottome. Wee must conclude therefore of necessitie, that certaine cœlestiall humours, to wit, of raine and some small snow togither, doe concurre to the making of crystall: and hereupon it commeth, that impatient it is of heat, and unlesse it be for to drinke water or other liquor actually cold, it is altogither rejected: but straunge it is, that it should grow as it doth, six angled: neither is it an easie matter to assigne a sound reason thereof, the rather for that the points bee not all of one fashion; and the sides betweene each corner are so absolute even and smooth, as no lapidarie in the world with all his skill can polish any stone so plaine. The greatest and most weightie peece of crystall that ever I could see, was that which *Livia Augusta* the Empresse dedicated in the Capitoll, which weighed about fiftie pounds. *Xenocrates* mine authour above-named, af- M
firmeth, that there was seene a vessell of crystall as much as an amphore: and some besides him doe say, that there have beene brought out of India, crystall glasses containing foure sextars apeece. Thus much I dare my selfe avouch, that crystall groweth within certaine rockes upon the Alps, and those so steepe and inaccessible, that for the most part they are constrained to hang

* Some read *Necrosn.*
* Which some take for Chrysolite.
* or *Nepos.*

by

A by ropes that ſhall get it forth. They that bee skilfull and well experieneed therein, goe by divers markes and ſignes which direct them to places where there is criſtall, and whereby alſo they can diſcerne good from bad; for this you muſt thinke, there be many imperfections and faults therein; as namely, when it is rough or rugged in hand, ruſtie like yron, clowdie and full of ſpeckes: otherwhiles there is a ſecret hidden fiſtulous ulcer as it were within: there lieth alſo in it a certain hard knurre, which is brittle and apt to breake into ſmall crumbs, beſides the corne or graine therein called Sal. Some peeces of cryſtall you ſhall have which carrie a certaine red ruſt: others be full of hairie ſtrakes, a man would imagine they were ſo many rifts; but cunning artificers can hide this laſt imperfection when they cut and engrave the peece that hath it: for in truth, if a cryſtall be pure and cleare of it ſelfe, much fairer it is plaine, than ſo wrought and engraven; and
B ſuch cryſtalls the Greeks call Aconteta; but above all, when they looke not like the froth of clear water: laſt of all, this is to be conſidered, that the heavier cryſtall is in proportion, the better account there is made of it. Moreover, I read of certaine Phyſicians who are of opinion, that there is not a better and more holeſome cauterie for any part of the bodie that requireth cauteriſing or burning, than a ball or pomander of cryſtall held oppoſit betweene the member and the Sun beams. But will you heare of another notorious example of follie and madneſſe in theſe cryſtals as well as in Caſſidoins? There are not many yeers ſince a dame of Rome, and thee none of the richeſt, who bought one boll or drinking cup of cryſtall, and paid 150000 ſeſterces for it. As for *Nero* the Emperour (of whome I ſpake erewhile) when unhappie news was brought unto him of a great overthrow and a field loſt to the daunger of his owne ſtate and the common-wealth,
C in the heigth of his rage and a moſt furious fit of anger, caught up two cryſtall drinking cups and paſht them all to peeces: his ſpight was belike at all the men living in that age, & better meanes hee could not deviſe to plague and puniſh them, than to prevent that no man elſe ſhould drinke out of thoſe glaſſes: and in verie truth, a cryſtall being once broken, cannot by any deviſe whatſoever be reunited and made whole againe as before. Wee have at this day cups and veſſels of glaſſe that come paſſing neare unto cryſtall: but woonderfull it is, that notwithſtanding our glaſſes be ſo like, yet they have not abated and brought downe the price of cryſtall, but rather cauſed it to be farre dearer.

In the next degree to Cryſtall, wee are to place Amber, a thing that hitherto I heare women onely ſet daintie ſtore by and adorne themſelves withall: ſtrange it is, that l'Ambre, Caſſidoine,
D3 and Cryſtall, ſhould thus be in equall requeſt with fine pretious ſtones; marie for Caſſidoin and Cryſtall, in ſome reſpects verely they may ſeeme to deſerve a higher roume, and namely in regard that both of them are ſo appropriat for to drinke water or cold liquor out of ſuch cups: but as for Amber, our delicates and wantons have not yet deviſed any probable reaſon why there ſhould be ſuch a reckning made of it: but ſurely it is the follie and vaine curioſitie of the Greeks that hath given occaſion thereof, and brought it into ſo great a name. And here I muſt beſeech the readers to beare with me in this my diſcourſe as touching the firſt originall of Amber; for I thinke it not impertinent to deliver what marveiles and woonders the Greekes have broached as touching this thing, that the age and poſteritie enſuing may yet be acquainted with their fabuloſities: firſt and foremoſt therefore, many of their Poëts, yea and as I ſuppoſe, the chiefe and
E principall of them, to wit, *Æſchylus*, *Philoxenus*, *Nicander*, *Euripides*, and *Satyrus*, tell us a tale of the ſiſters of young prince *Phaëton*, weeping piteouſly for the miſerable death of their brother who was ſmitten with lightning, were turned into Poplar trees, which in ſtead of teares yeelded everie yeere a certaine liquor called Electrum [*id eſt*, Amber] which iſſued from them where they grew along the river Eridanus, which wee call Padus, *id eſt*, the Po: and the reaſon why the ſame was named Electrum, is this, Becauſe the Sunne in old time was uſually called * Electot in Greeke. But that this is one of their lowd lies, it appeareth evidently by the teſtimonie of all Italie. But ſome of theſe Greeke writers and ſuch as would ſeeme to be more ſpeculative and better ſeene in the works of Nature than their fellows, have told us of certaine Iſlands that ſhould lye along the coaſt within the Venice gulfe, called Electrides, forſooth becauſe that amber is there
F gathered, by reaſon that the foreſaid river Po falleth into the ſea among them: howbeit well known it is, that there were never yet Iſlands ſo named within that tract; no nor any Iſlands at all neare to that place, into which the river Padus could poſſibly bring any thing at all downe his ſtreame. As for *Æſchylus* the foreſaid Poët, who ſaith that the river Eridanus is in Iberia, that is to ſay, Spaine, and otherwiſe that it is called Rhodanus: as alſo for *Euripides* and *Apollonius*, who ſay that

* ἠλέκτωρ, *qui nos ἀλέκτους faciat*, Becauſe he rouſeth and raiſeth us in a morning out of our beds.

Rhosne and Po both meet in one, and discharge themselves togither into the said Venice gulfe, they shew their grosse ignorance in Cosmographie and description of the world; and therefore they would bee rather pardoned if they knew not what Amber was. Those that write more modestly than the rest (and yet can lye as well as the best) beare us in hand, that about the sides of the foresaid Venice gulfe or Adriaticke sea, upon rockes otherwise inaccessible, there grow trees which yeerely at the rising of the Dogstar doe yeeld forth this amber in manner of a gum. *Theophrastus* contrariwise affirmeth, that amber is digged out of the ground. As for *Chares*, he saith, that *Phaëton* died in Æthiopia neare unto the temple of *Iupiter Ammon*, which is the reason of a chappell there wherein hee is shrined, as also of an oracle much renowmed; in which quarters (quoth he) amber is engendred. *Philemon* would make us beleeve, that amber is minerall, and that within Scythia in two places it is gotten foorth of the earth; in the one it is found white and of the colour of wax, which they call Electrum; in the other it is reddish or tawnie, and that is named Sualternicum. *Demostratus* calleth amber, Lyncurion, for that it commeth of the urine of the wild beasts named Onces or Lynces: the which is distinct in colour, for that which proceedeth from the male is reddish and of a firie colour; the other which passeth from the female, is more weake in colour, and enclineth rather to be whitish. Some give it the name Langurium, and make report of certaine beasts in Italie named Languriæ. *Zenothemis* tearmeth the same beasts Langas, and by his saying, they live about the Po. *Sudines* talketh of a tree in Liguria, which should beare this amber: of whose opinion also was *Metrodorus*. *Sotacus* was verely persuaded, that it ran downe from certaine trees in Brittaine, and those he thereupon called Electrides. *Pytheas* affirmeth, that in Almaine there is the arme of the Ocean called Mentonomon, along which there inhabit certaine people named Gutti, for the space of six thousand stadia; from which, within one daies sailing, there lyeth an Island called Abalus, into which at everie Spring tide, there is cast up by the waves of the sea at a high water, a great quantitie of amber; and it is taken for nothing else but a certaine excrement congealed and hardned, which the sea in that season purgeth and sendeth away. The inhabitants of those parts (saith he) use it for their ordinarie fewell to burne, and to sell it unto the Saxons and other Dutch, their next neighbours. *Timæus* accorded with him, save only that he would have the said Island to be called *Baltia. *Philemon* was of this mind, that amber would never flame if it were set on fire. *Niceas* would have us conceive, that it should be a certaine juice or humour proceeding (I wot not how) from the raies of the Sun; and yet hee maketh a reason thereof, imagining that the said beams should be exceeding hot toward the Sun setting, which rebounding from the earth, leave behind them a certaine fattie sweat in that part of the Ocean; and the same afterwards is cast up with *tides into the Sea-shore and sands of the Germans. Hee writeth also, that in Ægypt it is engendred after that manner, where it is called Sacal: as also among the Indians, who make more account of it than of frankincense. Semblably in Syria, the women (saith hee) make wherves of it for their spindles, where they use to call it Harpax, because it will catch up leaves, straws, and fringes hanging to cloaths. *Theophrastus* reporteth, that the ocean casteth up amber at tides, to the capes of the Pyrenæan hills: which *Xenocrates* also beleeved, who is the last that hath written of Amber, and such like. There is at this day living, *Asarubas*, who hath reported, that neare unto the Atlanticke sea there is the lake Cephisis, which the Mores call *Electrum, and the same being chafed and heat throughly by the Sun, casteth up from the mud thereof, amber, floting aloft upon the water. *Menesias* maketh report of a place in Affricke named Sicyone, as also of the river Crathis, which floweth out of a lough and runneth into the sea; in which lake or lough, there live certaine kinds of foule which hee nameth Meleagrides and Penelopes: herein amber is engendred (by his saying) after the same manner as before I shewed in the lake Electris. *Theomenes* saith, that neare unto the great Syrtis where the hortyard and garden of the Hesperides lieth, a man shall find that amber falleth out of the said garden into a lake beneath, and then the virgins attending upon that place, come ordinarily to gather it. *Ctesias* affirmeth, that among the Indians there is a river called Hypobarus, (which word signifieth as much, as bearing all good vessels) it runneth out of the North and falleth into the East sea, neare unto a wild mountaine full of trees that beare amber. He addeth moreover & saith, that those trees are called Aphytacoræ, by which denomination is meant, most delightsom sweetnesse. *Mithridates* writeth, that toward the coast of Germanie there lieth an Island, and the same named Oserícta, replenished with woods of Cedar trees yeelding Amber, which runneth from them into rocks. *Xenocrates* is of opinion, That Amber

G H I K L M

* or Banomania.

* æstibus, some read æstatibus, i. in Summer.

* or rather *Electris*, as appeareth a little after.

A ber was called in Italie not only Succinum, but also Thieüm: whereas the Scythians name it Sacrium (for there also it is engendered:) also he saith, that others thinke it is engendered in Numidia. But I wonder most at *Sophocles* the Tragicall Poët (a man, who wrote his Poësies with so grave & 2 loftie a stile, and lived besides in so good reputation; being otherwise borne at Athens, and descended from a noble house, emploied also in the managing of state affairs, as who had the charge and conduct of an armie) that hee should goe beyond all others in fabulous reports, as touching Amber: for he sticketh not to avouch, That beyond India it proceedeth from the teares that fall 3 from the eyes of the birds Meleagrides, wailing and weeping for the death of *Meleager*. Who would not marvaile, that either himselfe should be of that beleefe, or hope to persuade others to his opinion? For what child is there to be found so simple and ignorant, who will beleeve, that
B birds should keepe their times to shed tears every yeare so duly, and especially so great drops and in such quantitie, sufficient to engender Amber in that abundance? Besides, what congruitie is there, that birds should depart as farre as to the Indians and beyond, for to mourn and lament the death of *Meleager*, when he died in Greece? What should a man say to this? Are there not many more as goodly tales as these, which Poëts have sent abroad into the world? And their profession of Poëtrie, that is to say, of fayning and devising fables, may in some sort excuse them. But that any man should seriously and by way of hystorie deliver such stuffe, as touching a thing so rife and common, brought in every day in abundance by merchants which were ynough to convince such impudent lies, is a meere mockerie of the world in the highest degree; a contempt offered unto all men, and argueth an habit of lying, and an impunitie of that vice intollerable. 5
C

Chap. iii.

Of the true originall and generation of Amber. The sundrie kinds thereof. The excesse and superfluitie of people, as touching Amber. The medicinable properties that it affourdeth. Of Lincurium, and the vertues that it hath in Physicke.

BVt to leave Poëts with their tales, and to speake resolutely and with knowledge, of Amber: knowne it is for certaine, That engendered it is in certaine Islands of the Ocean Septentrio-
D nall, where it beateth upon the coasts of Germanie: and the Almains call it *Glessum. And in very truth, in that voyage by sea which *Germanicus Cæsar* made into those parts, our countreymen named one of those Islands Glessaria, by reason of the Amber there found; which Island the Barbarians called Austravia. It is engendred then in certain trees, resembling Pines in some 5 sort, and issueth forth from the marrow of them, like as gum in Cherrie trees, and rosin in Pines. And verely, these trees are so full of this liquor, that it swelleth and breaketh forth in abundance: which afterwards either congealeth with the cold, or thickeneth by the heat of the Autumn. Now if at any time the sea rise by any extraordinarie tide, and catch any of it away out of the Islands, then verely it is cast a shore upon the coasts of Germanie, where it is so apt to roule, that it seemeth (as it were) to hang and settle lightly upon the sands, whereby it is the more easily gotten.
E And for that our auncestours heretofore in old time beleeved that it was the juice of a tree, they called it therefore in Latine Succinum. That it commeth from trees of a Pine kind, may appeare by this, That if a man rub it, he shall find the smell of Pine-wood: also, for that when it burneth, the flame and fume (both) resembleth that of Torch-wood. The Germanes make great trafficke thereof, and bring it into Pannonia, and so from thence unto us, through our provinces [of Istria and Venice;] for from Pannonia, the Venetians first (who confine next upon the marches thereof, and whom the Greekes call Heneti) received it by way of marchandize in the maritime port townes along the Adriaticke sea, and so by that meanes brought it into name and request: which ordinarie trafficke may be the reason which gave occasion to the foresaid tale that runneth of the Po and the Poplars about it, that should weep Amber. And even at this day the countrey dames
F of Lumbardie, and those parts beyond the Po, use to weare faire carkanets and collars of Amber-beads to adorne themselves especially, and in some sort for the health also of their bodies: for perswaded they are, that it withstandeth the inflammation of the Amygdales and other accidents of the throat and chawes: for that the people of that country are subject to *poghes under their throat, about those fleshie parts neare unto it, by reason of sundrie kinds of waters which breed those

*For the perspicuitie and brightnes like unto glasse.

*This disease is called *Bronchocele* or *Hernia gutturis*, ordinarie in Savoy and those parts about Geneva,

thoſe infirmities. The foreſaid coaſt of Germanie is almoſt ſix hundred miles from Carnuntum G
in Pannonia, and yet of late daies much frequented by merchants from all quarters. Certes, a
Gentleman of Rome diſcovered thoſe parts, by occaſion that he was ſent thither by commiſſion
from *Iulianus* (who had the charge under *Nero* for furniſhing of the ſolemne plaies and ſights of
ſword-fencers) to buy up good ſtore of Amber. This gentleman (I ſay) ſurveied diligently all thoſe
coaſts, and ſaw the manner of the whole traffick for that commoditie, yea, & brought into Rome
ſuch plentie thereof, that the great nets and cordage (which for defence of the outſtanding and
open gallerie within the Theatre were oppoſed againſt the wild beaſts, there to be baited and to
fight) were buttoned and ſet out with Amber; the armour likewiſe, the bieres, and other furniture
for buriall of thoſe fencers which ſhould happen there to bee killed, yea, and in one word, all the
apparrell and proviſion for one day to the ſetting out of thoſe paſtimes and diſports, ſtood moſt H
of Amber. The greateſt peece of Amber that he brought over, weighed thirteen pounds. More-
over, it is held for certain, That it is to be found among the Indians. *Archelaus*, who ſometime
reigned as king in Cappadocia, writeth, That from thence it is brought rude and uncleane, with
peeces of barke ſticking within it: but the way to ſcoure and polliſh it, is to ſeeth it in the greaſe
of a ſow that ſuckleth pigs. That it doth deſtill and drop at the firſt very clear and liquid, it is evi-
dent by this argument, for that a man may ſee diverſe things within, to wit, Piſmires, Gnats, and
Lizards, which no doubt were entangled and ſtucke within it when it was greene and freſh, and ſo
remained encloſed within as it waxed harder. Many kinds there be of Amber. The white is moſt
redolent and ſmels beſt: but neither that, nor yet thoſe peeces which are coloured like wax, be of
any price. The high coloured Amber, namely that which is of a deepe yellow enclining to red, I
is much more eſteemed, and the rather, if it be cleare and tranſparent, provided alwaies that the
glittering thereof be not too ardent. Commendable it is in Amber, and ſheweth it to bee rich, if
it repreſent fire in ſome ſort: but it muſt not be too too fierie. But the excellent Amber is that
which is called Falernum, for the colour which it carrieth, reſembling the wine Falernum: and
the ſame is cleare and tranſparent, with a gay luſtre that pleaſeth and contenteth the eie very well.
And yet ſome there be, who delight more in that Amber which looketh with a mild yellow, like
unto boiled and clarified honey. But this I am to give you to underſtand, That there may be given
unto Amber what tincture or colour a man will: but commonly they uſe thereto the ſuet of Kids
and the root of Orchanet: and no mervaile, ſince that ſome have deviſed alſo to enrich it with a
purple die. To come unto the properties that Amber hath, If it bee well rubbed and chauſed be- K
tweene the fingers, the potentiall faculties that lieth within, is ſet on work, and brought into actu-
all operation, whereby you ſhall ſee it to draw chaffe ſtrawes, drie leaves, yea, and thin rinds of the
Linden or Tillet tree, after the ſame ſort as the loadſtone draweth yron. Moreover, take the ſha-
vings ſcraped from Amber, and put them into lampe-oile, they will burne and maintaine light
both longer and alſo more cleare than weekes or matches made of the very tire and beſt of flax.
As touching the eſtimation that our delicates and wantons make thereof: Some there bee, who
for their pleaſure will give more for a puppet or image made of Amber to the likeneſſe and pro-
portion of man or woman, be it never ſo little, than for the lively and luſtie bodie indeed of a tall
man and valiant ſouldior. But what ſhould I ſay to ſuch? Certainely they deſerve to be well cha-
ſtiſed for their perverſe judgement, & one rebuke is not ſufficient. Yet can I hold better with them L
who take pleaſure in other things, and me thinks they have ſome reaſon thereof: for Corinth veſ-
ſell, there is good cauſe that a man ſhould ſet his mind thereupon, in regard of the ſingular tem-
per of the braſſe, with ſome proportion of ſilver and gold: in peeces of mettall engraven, encha-
ſed, and emboſſed, the curious art and the wittie deviſe ſeene upon the worke, may well raviſh the
ſpirit of the buyer, and draw him on to give a round price: Touching the cups made of Caſſido-
nie and Cryſtall, I have ſhewed alreadie, wherin lieth their grace and what may enamour a chap-
man and cauſe him to bid well and offer frankely for them: Faire pearles and goodly uniones are
commended, for that our brave dames enrich their borders therewith, and ſet out the attire of
their heads: gems and precious ſtones adorne and beautifie our fingers: in ſumme, there is no ſu-
perfluitie that we have, but grounded it is either upon ſome colourable uſe that we may pretend, M
or elſe upon ſome gallant ſhew that it maketh: As for this Amber, I ſee nothing in the world to
commend it; onely it is a mind that folke have to take an affection to it, they know not wherfore,
even of a delicat and fooliſh wantonneſſe. And in truth, *Nero Domitius*, among many other foo-
leries and gauds wherein he ſhewed what a monſter he was in his life, proceeded ſo farre, that he

made

A made a ſonnet in praiſe of the haire of the Empreſſe *Poppæa* his wife, which he compared to Amber, and as I remember, in one ſtaffe of his dittie hee tearmed them Succina, *i.* Ambre: and from that time our daintie dames and fine ladies have begun to ſet their mind upon this colour, and have placed it in the third ranke of rich tincture: whereby we may ſee there is no ſuperfluitie and diſorder in the world, but it hath a pretence and cloake of ſome precious name or other. And yet I will not diſgrace Amber too much: for why? there is ſome good uſe thereof in Phyſicke. But I muſt tell you againe, our women regard not that one whit; that is not it wherefore they take ſo great a liking unto Ambre. True it is, that a collar of Ambre beads worne about the neck of yong infants, is a ſingular preſervative unto them againſt ſecret poyſon, & a countercharme for witch-
5 2 3 craft and ſorcerie. *Calliſtratus* ſaith, That ſuch collars are very good for all ages, and namely, to
B preſerve as many as weare them againſt fantaſticall illuſions and frights that drive folke out of their wits: yea and Amber, whether it be taken in drinke or hung about one, cureth the difficultie of voiding urine. This *Calliſtratus* brought in a new name to diſtinguiſh yellow Ambre from the reſt, calling it Chryſelectrum, which is as much to ſay as gold Amber. And in very truth, this Amber is of a moſt lovely and beautifull colour in a morning. This propertie it hath beſides by it ſelfe, that it will catch fire exceeding quickly, for if it be neare it, you ſhall ſee it will ſoone be of a light fire. He ſaith of this yellow Amber, that if it be worne about the necke in a collar, it cureth feavers, and healeth the diſeaſes of the mouth, throat, and jawes: reduced into pouder and tempered with honey and oile of roſes, it is ſoveraigne for the infirmities of the eares. Stamped together with the beſt Atticke honey, it maketh a ſingular eyeſalve for to helpe a dim ſight: pulverized,
C and the pouder thereof taken ſimply alone, or elſe drunke in water with Maſticke, is ſoveraign for the maladies of the ſtomacke. Furthermore, Amber is very proper to falſifie many precious ſtones which are commended for their perſpicuitie and tranſparent cleareneſſe; but eſpecially to counterfeit Amethyſts, by reaſon that as I have alreadie ſaid, it is capable of any tincture that a man would give it. The froward peeviſhneſſe of ſome Authours who have written of Lyncurium, enforceth me to ſpeake of it immediatly after Amber: for ſay that it be not Electrum or Amber, as ſome would have it, yet they ſtand ſtiffely in this, that it is a precious ſtone; mary they hold, that it commeth from the urine of an Once, by reaſon that this wild beaſt ſo ſoone as it hath piſſed, covereth it with earth, upon a ſpight and envie to man, that he ſhould have no good therby.
They affirme moreover, That the Once ſtone or Lyncurium is of the ſame colour that Ambre
D ardent which reſembleth the fire, and that it ſerveth well to be engraven: neither by their ſaying doth it catch at leaves onely and ſtrawes, but thin plates alſo of braſſe and yron: and of this opinion was *Diocles* and *Theophraſtus*. For mine owne part, I hold all to bee meere untruths: neither do I thinke, that in our age there hath been a man who ever ſaw any precious ſtone of that name. Whatſoever alſo is written as touching the vertues medicinable of Lyncurium, I take them to be no better than fables, namely, that if it be given in drinke, it will ſend out the ſtone of the bladder: if it be drunke in wine, it will cure the jaundiſe preſently, or if it be but caried about one, it will do the deed: but ynough of ſuch fantaſticall dreames and lying vanities, and time it is now to treat of thoſe precious ſtones, whereof there is no doubt made at all, and to begin with thoſe that by all mens confeſſion are moſt rich and of higheſt price. In which diſcourſe I will not proſecute this
E theame onely, but alſo (for to advance the knowledge of poſteritie in thoſe things that may profit this life) I meane eftſoones to have a fling at Magicians for their abhominable lies and monſtrous vanities, for in nothing ſo much have they overpaſſed themſelves as in the reports of gems and precious ſtones, exceeding the tearmes and limits of Phyſicke, whiles under a colour of faire and pleaſing medicines, they hold us with a tale of their prodigious effects and incredible.

Chap. iiii.

Of Diamants and their ſundrie kinds. Their vertues and properties medicinable. Of Pearles.

F THe Diamant carieth the greateſt price, not onely among precious ſtones, but alſo above all things elſe in the world: neither was it knowne for a long time what a Diamant was, unleſſe it were by ſome kings and princes, and thoſe but very few. The onely ſtone it is that wee find in mines of mettall. Very ſildome it is, and thought a miracle to meet with a diamant in a veine of gold, and yet it ſeemeth as though it ſhould grow no where but in gold. The writers of ancient time

time were of opinion that it was to be had in the mines only of Æthyopia, and namely betweene G
the temple of *Mercurie* and the Iſland Meroë, affirming moreover, that the faireſt Diamant that
ever was found, exceeded not in bigneſſe a Cucumber ſeed, whereunto alſo it was not unlike in
colour. But in theſe daies there be knowne ſix ſorts of Diamants. The Indian is not engendred in
mines of gold, but hath a great affinitie with Cryſtall, and groweth much after that manner; for
in tranſparent and cleare colour it differeth not at all, neither yet otherwhiles in the ſmooth ſides
and faces which it carieth betweene ſix angles, pointed ſharpe at one end in manner of a top, or
elſe two contrarie waies lozengewiſe (a wonderfull thing to conſider) as if the flat ends of two tops
were ſet and joined together: and for bigneſſe, it hath been knowne of the quantitie of an Hazel-
nut or Filbard kernill. The Diamants of Arabia, be much like unto the Indian, only they are leſſe;
they grow alſo after the ſame order: As for the reſt, they are of a more pale and yellow colour, te- H
ſtifying out of what countrey and nation they come, for they breed not but in mines of gold,
and thoſe the moſt excellent of all others. The triall of theſe Diamants is upon a ſmiths Anvill:
for ſtrike as hard as you will with an hammer upon the point of a Diamant, you ſhall ſee how it
ſcorneth all blowes, and rather than it will ſeeme to relent, firſt flieth the hammer that ſmiteth,
in peeces, and the very anvill it ſelfe underneath cleaveth in twaine. Wonderfull and inenarra-
ble is the hardneſſe of a Diamant: beſides it hath a Nature to conquer the furie of fire, nay, you
ſhall never make it hote, doe what you can: for this untamable vertue that it hath, the Greekes
have given it the name Adamas. One of theſe kinds the ſaid Greekes call Cenchron, for that it
is as big ordinarily as the Millet ſeed: a ſecond ſort they name Macedonicum, found in the mine
of gold neat Philippi; and this is that Diamant, which for quantitie is compared to the Cucum- I
ber ſeed: After theſe, there is the Cyprian Diamant, ſo called, becauſe it is found in the Iſle Cy-
prus; it enclineth much to the colour of braſſe, but in caſes of Phyſicke (as I will ſhew anon) moſt
effectuall: Next to which I muſt raunge the Diamant Siderites, which ſhineth as bright as ſteele,
whereupon it tooke that name: in weight it paſſeth the reſt, but in nature it is farre unlike; for it
will not abide the hammer but breake into peeces; beſides another adamant will pierce it, and
bore a hole quite through it: which alſo may be ſaid of the Cyprian Diamant: ſo as to ſpeake in
one word, theſe two laſt rehearſed, may go only under the name of Diamants: for otherwiſe they
are but baſtards, and not true Diamants. Moreover, as touching the concord and diſcord that is
betweene things naturall, which the Greekes call Sympathia and Antipathia (whereof I have ſo
much written in all my bookes, and endevoured to acquaint the readers therewith) in nothing K
throughout the world may we obſerve both the one & the other more evidently, than in the Dia-
mant: For this invincible minerall (againſt which neither fire nor ſteele, the two moſt violent and
puiſſant creatures of Natures making, have any power, but that it checketh and deſpiſeth both
the one and the other) is forced to yeeld the gantelet, and give place unto the bloud of a Goat,
this onely thing is the meanes to breake it in ſunder, howbeit, care muſt be had, that the Diamant
be ſteeped therin whiles it is freſh drawn from the beaſt before it be cold: and yet when you have
made all the ſteeping you can, you muſt have many a blow at the Diamant with hammer upon
the anvill: for even then alſo, unleſſe they be of excellent proofe & good indeed, it will put them
to it, and breake both the one and the other: But I would gladly know whoſe invention this might
be to ſoake the Diamant in Goats bloud, whoſe head deviſed it firſt, or rather by what chance was L
it found out and knowne? What conjecture ſhould lead a man to make an experiment of ſuch a
ſingular & admirable ſecret, eſpecially in a goat, the filthieſt beaſt one of them in the whole world?
Certes I muſt aſcribe both this invention and all ſuch like to the might and beneficence together
of the divine powers: neither are we to argue and reaſon how and why Nature hath done this or
that? ſufficient it is that her will was ſo, and thus ſhe would have it. But to come againe to the Dia-
mant, when this proofe taketh effect to our mind, ſo that the Diamant once crack, you ſhall ſee it
breake and crumble into ſo ſmall peeces, that hardly the eie can diſcerne the one from the other.
Well, lapidaries are very deſirous of Diamants & ſeeke much after them: they ſet them into han-
dles of yron, & by their means they will with facilitie cut into any thing, be it never ſo hard. More-
over, there is ſuch a naturall enmitie between Diamants and Loadſtones, that if it be laid near to M
a peece of yron, it will not ſuffer it to be drawn away by the loadſtone: nay, if the ſaid loadſtone be
brought ſo near a peece of yron, that it have caught hold therof, the Diamant, if it come in place,
will cauſe it to leave the hold & let it go. The Diamant hath a property to fruſtrate the malicious
effects of poyſon; to drive away thoſe imaginations that ſet folke beſides themſelves; & to expell

A vaine feares that trouble and possesse the mind: which is the reason that some have called it Anachites. *Metrodorus Scepsius* affirmeth, That the Diamant is found in Germanie and the Island Baltia, wherein Amber is engendered: but as farre as ever I could read, he is the onely man that saith so. This Diamant also of Almaine hee preferreth before those of Arabia, howbeit, no man doubteth that he lieth stoutly. After the precious diamants of India and Arabia, we in these parts of the world esteeme most of pearls: but as touching them, I have written sufficiently in my ninth booke, where I discoursed of such matters as the seas doe yeeld.

Chap. V.

Of the Emeraud, and the sundrie sorts thereof. Of greene gems or precious stones, and such as be lightsome and cleare all thorow.

B EMerauds for many causes deserve the * third place: for there is not a colour more pleasing to the eye. True it is, that we take great delight to behold greene hearbes and leaves of trees, but this is nothing to the pleasure wee have in looking upon the Emeraud, for compare it with other things, be they never so greene, it surpasseth them all in pleasant verdure. Besides, there is not a gem or precious stone that so fully possesseth the eye, and yet never contenteth it with satietie. Nay, if the sight hath beene wearied and dimmed by intentive poring upon any thing else, the beholding of this stone doth refresh and restore it againe, which lappidaries well know, that cut and engrave fine stones; for they have not a better means to refresh their eyes than the Emeraud, the mild greene that it hath doth so comfort and revive their wearines and lassitude. Moreover, the longer and farther off that a man looketh upon Emerauds, the fairer and bigger they seeme to the eye, by reason that they cause the reverberation of the aire about them for to seeme greene: for neither Sunne nor shade, ne yet the light of candle, causeth them to change & loose their lustre: but contrariwise, as they ever send out their owne raies by little and little, so they entertaine reciprocally the visuall beames of our eyes; and for all the spissitude and thicknesse that they seeme to have, they admit gently our sight to pierce into their bottome; a thing that is not ordinarie in water. The same are many times shaped hollow, thereby to gather, unite, and fortifie the spirits that maintaine our eyesight. In regard of these manifold pleasures that they shew to our eyes, by generall consent of all men spared they are, and lappidaries bee forbidden expressely to D cut and engrave them: and yet the Emerauds of Scythia and Ægypt bee so hard, as they cannot be perced or wounded by any instrument. Moreover, when you meet with a table-Emerauld, hold the flat face thereof against any thing, it will represent the said object to the eye, as well as a mirroir or looking glasse. And verely, *Nero* the Emperour was wont to behold the combates of fencers and sword-plaiers in a faire Emeraud. Now this first and formost is to be noted, that of Emerauds there be twelve kinds. The faireſt and richest of all other, be those of Tartarie and called they are Scythicke, of the nation Scythia from whence they came: And in truth, there be none fuller and higher in colour or have fewer blemishes: and looke how farre Emerauds goe beyond other precious stones, so farre doe the Scythian Emerauds surpasse all others. The Bactrian Emerauds, as they are the next neighbours, so they come neareſt in goodnesse to the Scythicke: found these E bee in chinkes and joints (as it were) of rockes in the sea, and gathered (by report) about the dog-daies, when the Northeast Etesian winds do blow; for then they glitter and shine within the earth that is growne about them, by reason that the said winds (which in those parts are strong) remove the sand away from them, and cause them to be seen: but these by report be farre lesse than those of Scythia. In a third place follow the Emerauds of Ægypt, & they be gotten out of certain craggie hils and cliffes about Coptos, a town in high Ægypt. As for all others, they be found ordinarily in brasse mines: which is the reason that the Emerauds of the Isle Cypros be held for cheese and principall among those nine: and yet their singular commendation lieth not in any clear or mild colour that they have, but their onely grace consisteth herein, that they seeme moist with a certaine fattinesse, and on which side soever a man doe view them, they resemble the liquid water F of the sea, for transparent they be and shining withall, that is to say, they send out a colour of their owne, and withall, through their perspicuitie receive the penetrant beames of our eyes. It is reported, That in the same Isle Cypros, about the sepulchre of *Hermias* a petie king there, and near unto the sea sides where were pooles and stewes of great fishes kept to bee salted, there stood in old time a lion of marble, in the head of which Lion were set certaine faire Emerauds in stead of eyes,

*To wit, after Diamants and Pearles.

eyes, looking oppoſit into the ſea: but they glittered and pierced ſo deepe into the water, that the Tunies upon that coaſt were afraid therat, and fled from the nets and other inſtruments that the fiſhers laid to take them withall: who marvailed a long time at this ſtraunge accident: but in the end knowing what the matter was, they chaunged the eies of the foreſaid Lion, and removed the Emerauds. But requiſit it is that I ſhould ſet downe the imperfections and defaults of Emerauds, for that a man may ſo eaſily bee deceived and beguiled in the choiſe of them: Firſt therefore all Emerauds bee ſubject to ſome blemiſhes, and yet as wee obſerve in men, they have their particular defects by themſelves, according to the nation where they bee found; for thoſe of Cypres have not an uniforme verdure, but you ſhall ſee in one and the ſame ſtone a mixture (as it were) of diverſe greenes, more or leſſe in ſundrie parts: neither keepe they ever that rich greene after one tenour, which we ſee in the Scythian Emerauds. Over and beſides, in ſome you ſhall meet with a cloud or ſhaddow running betweene, which doth impeach the cleare colour: neither is the ſame commendable, if it be over bright. Theſe faults are the cauſe that Emerauds are diſtinguiſhed by diverſe names and kinds: for ſome be darke, and thoſe are called blind: others be thicke, without any cleareneſſe or perſpicuitie at all. And ſome againe are diſcommended and rejected for divers little clouds, which alſo are different from the ſhade aforeſaid: for this little cloud wherof I ſpeak, is a fault in whiteneſſe, when as in viewing of an Emeraud it looketh not greene all through, but either the eyeſight meeteth with ſome white in the way, or elſe at leaſtwiſe in the bottome. And thus much as touching the faults in colour. But in the very bodie and ſubſtance of the Emeraud there be others obſerved, to wit, when there appeare either hairie ſtreakes, or congealed ſpecks reſembling corns of ſalt, or elſe ſpots of lead. Next unto the Cyprian Emerauds, there is reckoning made of the Æthyopian, which as king *Iuba* mine authour dooth report, are found in Æthyopia, from Coptos in Ægypt three daies journey: Theſe be of a cheareſull and lively green, but hardly ſhall you find any of them clear, pure, and of one colour. Among theſe, *Democritus* raungeth the Hermionian Emerauds and the Perſian: of which, the former ſeeme to ſwell out as if they were emboſſed and fattie withall: the Perſian are not tranſparent, & yet of a pleaſant greene and uniforme, contenting the eye-ſight well ynough, though it cannot pierce and enter into them; and much like they be to the glowing eyes of cats and Panthers, for we may perceive them to glitter and ſhine, and yet they be not tranſlucent. Theſe Emerauds in the Sunne looſe their luſtre & become dim: but in the ſhade they ſhine gallantly, yea, and caſt from them their beautifull raies farther than any other. And yet the generall fault in all theſe, is this, if they ſhew the colour either of gall or the skie; likewiſe if in the Sunne they glitter and ſhine cleare, but yet appear not green: Theſe imperfections are perceived ordinarily and moſt of all in the Atticke Emerauds, found in ſilver mines at a place called Thoricos, yet are not theſe ſo groſſe and fattie as others, and alwaies they ſeeme more beautifull a farre off than neare at hand: Theſe are ſubject ordinarily unto the fault called Plumbago, that is to ſay, in the Sun they looke with a leaden hew: Moreover, this peculiar qualitie they have by themſelves, that ſome of them wear and decay with age, inſomuch as by little and little their lively greene decaieth; and beſides, in the Sunne they looſe their luſtre. After the Atticke Emerauds, thoſe of Media bee accounted the greeneſt, and otherwhiles they reſemble the green Saphire. Theſe ſeeme to be full of waves, and to containe within them divers ſhapes and figures of many things, as for example, poppie heads, birds, wings, and finnes, *locks of haire, and ſuch like. Such Emerauds as are not found naturally greene, may bee made better and receive their perfection, by waſhing them in wine and oile. In one word, there is not a greater Emeraud to be found than thoſe of Media. As touching Carchedonian Emerauds, I wot not well whether they be now out of all requeſt & knowledge, ſince their mines of braſſe have failed them; and yet were they alwaies (at their beſt) the ſmalleſt of all others, and bare the loweſt price: the ſame were brittle & eaſie to be broken, their colour alſo was not ſetled but uncertain & changeable, reſembling for all the world the greene feathers in Peacockes tailes, or the downe of Pigeons neckes, as a man held and turned them one way or other they ſhined more or leſſe, beeing otherwiſe of themſelves full of veines and skales. A ſpeciall fault there was, wherunto theſe Emerauds were ſubject, which lapidaries called Sarcicon, that is to ſay, a certaine carnoſitie or fleſhineſſe incident unto gems. Gathered they were in a certaine mountaine neare unto Carchedon, which thereupon was named Smaragdites. King *Iuba* hath left in writing, That the Emeraud called Cholos, ſerved the Arabians much in their buildings: for to adorne and beautifie their houſes, they were wont to encloſe and ſet the ſame in the walls like as the white marble, which the Æ-

G H I K L M

*Capillorum, not catulorum.

gyptians

A gyptians name Alabaſtrites. He reporteth moreover, that there be many other Emerauds neare by taken forth of the mountaine Taygetus in Laconia, and thoſe therfore be named Laconicke, and much like they are to thoſe of Media. Hee ſpeaketh likewiſe of others in Sicilie. Reckoned there is in the ranke of Emerauds, a certain gem brought out of Perſia, named Tanos; howbeit of an unpleaſant greene it is, & foule within: as alſo the ſtone Chalcoſmaragdos that commeth out of the Iſle Cyprus, which hath in it certaine veins of braſſe that trouble the greene colour. *Theophraſtus* maketh report, that hee hath read in the books and records of the Ægyptians, that a K. of Babylon ſent as a preſent to one of their kings, one entire Emeraud foure cubits long and
+ three in breadth. Alſo, that there had been within the temple of *Iupiter* among them, an obeliske made of foure Emerauds, which obeliske notwithſtanding was fortie cubits long, and carried in
B breadth foure cubits in ſome places, and two in others. He addeth moreover, that while he wrot his hiſtorie, there was at Tyros within the temple of *Hercules*, a pillar ſtanding of one Emeraud, unleſſe haply it were ſome baſtard Emeraud, for ſuch (quoth he) are found; and namely, in Cyprus there was ſeene naturally growing, a ſtone, whereof the one halfe was a plaine Emeraud, the other a Iaſper, as if the humour had not been fully transformed and converted into an Emeraud. *Apion* the Grammarian ſurnamed * Pliſtonices, wrote not long before, and he hath left upon record, That there was remaining ſtill within the labyrinth of Ægypt, the gyantlike image of their god *Serapis* nine cubits tall, and of one entire Emeraud.

* *i.* Contentious, or Victorious.

Moreover, many are of opinion, that Beryls are of the ſame nature that the Emeraud, or at leaſtwiſe verie like: from India they come as from their native place, for ſeldome are they to be
C found elſe-where: lapidaries by their art and cunning know how to cut them with ſix angles and to poliſh them ſmooth; for otherwiſe their luſtre which is but ſad, would bee dull and dead indeed, unleſſe it were quickened and revived by the repercuſſion of thoſe angles: for be they poliſhed never ſo much any other way, yet they have not that lively gloſſe which thoſe ſix faces give unto them. Of theſe Beryls, thoſe are beſt accounted of, which carrie a ſea-water greene, and reſemble the greeneſſe of the ſea when it is clear. Next to them, are thoſe which they call Chryſoberylli: theſe bee ſomewhat more pallet, and the luſtre that they have tendeth to the colour of gold. A third kind there is approching neare to this, but that it is more pale (howſoever ſome do thinke it is no kind of Beryll, but a gem by it ſelfe) and this they call Chryſopraſos. In a fourth degree are placed the Beryls named Hyacinthizontes, becauſe they encline ſomewhat to the Ia-
D cinct. And in a fifth, ſuch as ſtand much upon the colour of the skie, whereupon they take their name Aëroïdes. After them, be the Beryls Cerini, for that they ſeeme like wax: then the Oleagini, that is to ſay, of an oyle colour. And in the laſt places bee the Cryſtalline, which are white, and come verie neare to cryſtals. All the ſort of theſe Beryll ſtones have theſe faults, to wit, white hairie ſtreaks or lines in them, yea and other filthie ordure; beeing of themſelves without theſe imperfections, apt to ſhed their colour, which ſoone fadeth. The Indians take a wonderfull pleaſure in long Beryls, and commend them for the onely ſtones and gems in the world, as if they cared not to be ſet in gold, but choſe rather to be worne without it: and in truth, in that regard their manner is to bore holes through them, and then to file them up into cheins and collars, with haires of elephants: howbeit, when they meet with ſome excellent Beryls indeed, which are come
E to their abſolute goodneſſe and perfection, they thinke it not good to pierce ſuch, but preſently they tip them with gold, that is to ſay, they ſet unto their heads certaine knobs in manner of boſſes which doe comprehend and encloſe the ſame. And in verie truth, they delight to cut their Beryls into long rolls or pillaſtres in manner of cylindres, rather than after the manner of other gems, becauſe their principall grace and commendation lieth in their length. Some are of opinion, that the Beryll groweth naturally cornered and with many faces; and they hold thoſe Beryls to be richeſt, which being bored through along, have their white pith taken forth, for to give them a better luſtre of gold put unto them; by the reverberation whereof, the overmuch perſpicuitie of the ſtone may ſeeme more corpulent and in ſome ſort corrected. Over and above the faults alreadie noted, ſubject they are alſo to thoſe imperfections which be incident to the Eme-
F rauds, yea and beſides to certaine ſpecks called Pterygiæ. It is thought, that Beryls be found likewiſe in theſe parts of the world, to wit, about the kingdome of Pontus. As for the Indians, after that cryſtall was once found out, deſpiſed to ſophiſticat and falſifie other gems therewith, but Beryls eſpecially.

G

Chap. vi.

Of the pretious stone Opalus, and all the sundrie kinds. The faults in them and the means to trie which be good. Also divers sorts of other gems and pretious stones.

THe stones called Opales, differ little or nothing otherwhiles from Beryls; and yet the same sometime are nothing at all like them: neither is there a gem that they will give place unto, unlesse it be the Emeraud: India land is the onely mother of them: lapidaries therfore and those who have written books of pretious stones, have given unto them the name and glorie of the greatest price, but especially for the difficultie in finding them out and chusing of them H
which is inenarrable: for in the Opall, you shall see the burning fire of the Carbuncle or Rubie,
2 the glorious purple of the Amethyst, the greene sea of the Emeraud, and all glittering togither
3 mixed after an incredible maner. Some Opals carie such a resplendent lustre with them that they are able to match the bravest and richest colours of painters; others represent the flaming fire of brimstone, yea and the bright blaze of burning oile. The Opall is ordinarily as bigg as a filberd nut. And heere commeth to my mind an historie among us as touching the Opall, worthie of remembrance: for there is at this day to be seene one of these Opals, for the which gem *Marcus Antonius* proscribed and outlawed *Nonius* a Senatour of Rome the sonne of that *Struma Nonius*, at whome the stomacke of *Catullus* the Poët did rise so much, seeing him (as he did) sit in a stately chaire of yvorie called Curulis, and grandfather to that *Servilius Nonianus* whome I my selfe have seene Consull. Now the said Senatour when hee was driven to flie upon this proscription, tooke no more with him of all the goods which hee had, but onely a ring wherein this Opall was set, which (as it is well knowne) had been valewed sometime at twentie thousand sesterces. But as the cruell and inordinat appetite of *Antonie* (who for a jewell onely outlawed and banished a Romane Senatour) was woonderfull on the one side, so the peevishnesse and contumacie of *Nonius* was as straunge on the other side, who was so farre in love of that gem which cost him his proscription, and rather than to part with it suffered himselfe to bee turned out of house and home: and yet the verie wild beasts are better advised than so, who are content to bite off those parts of their bodie and leave them behind them for the hunters, for which they
4 see themselves in daunger of death. In the Opale, there be observed also divers blemishes and K
imperfections as well as in other stones; namely, if the colour resemble the floure of that hearbe which is called Heliotropium, *id est*, Turnesole: also if it looke like crystall or haile: likewise if there be a spot comming betweene in manner of a grain or kernell of salt: if it be rough in handling, and if there be certaine small pricks or spots represented to the eyes: neither is there any pretious stone that the Indians can counterfeit so well by the means of glasse, as this; insomuch as hardly a man shall discerne the naturall Opall from the false, when they have done withall: but the onely triall is by the Sunne, for if a man hold an Opall betwixt his thumbe and finger against the beams of the Sunne, if it be a counterfeit, hee shall find those divers colours which shewed therein, to run all into one and the same transparent colour, and so to rest in the bodie of the stone; whereas the brightnesse of the true Opall eftsoones doth chaunge, and sendeth foorth L
the lustre too and fro more and lesse, yea and the glittering of the light shineth also upon the fingers. This gem, for the rare and incomparable beautie and grace that is in it, most writers have called Pæderos.

There is also another kind of Opalos apart by it selfe, according to the opinion of some, who say that it is called by the Indians Sangenon. It is said, that there be Opals in Ægypt and in Arabia, like as in the kingdome also of Pontus, but such of all other beare the lowest price. In Galatia likewise, and in the Isles Thrasos and Cyprus: for albeit they have the lovely beautie of the Opalus, yet their lustre is nothing so lively and lightsome, and seldome shall you meet with any of them that is not rugged: their chiefe colours stand much upon brasse and purple: the fresh verdure of the greene Emeraud is away, which the true Opale doth participat. This is generally M
held, that they are more commendable which be shadowed as it were with the colour of wine, than delaied with the cleareneſſe of water.

Thus farre foorth have I written of gems and pretious stones which bee esteemed principall and most rich, according to the decree generally set downe and pronounced by our nice and costly

A coſtly dames: for wee may conclude upon this point more certainely, going by their ſentence, than grounding upon the judgement of men: for men (kings eſpecially and great men) make the price of each gem according to their ſeverall fancies. *Claudius Cæſar* the Emperour made no reckoning of any but the Emeraud and the Sardonyx, and theſe ordinarily he wore upon his fingers: but *Scipio Africanus* (as ſaith *Demoſtratus*) tooke a liking to the Sardonyx before him, and was the firſt Roman that uſed it; and ever ſince, this gem hath ben in great requeſt at Rome: in regard of which credit, I will raunge it next unto the Opall. In old time the Sardonyx, as may appeare by the verie name, was taken for the pretious ſtone which ſeemed to be a *Cornalline upon white, that is to ſay, as if the ground under a mans naile were fleſh, and both togither tranſparent and cleare: and in verie truth, the Sardonyx of India is ſuch, according to *Iſmenias*, *De-*
B *moſtratus*, *Zenathemis*, and *Sotacus*. As for theſe two laſt named, they verely doe name all the reſt that are not cleare and ſhew not through them, Blind Sardonyches, ſuch as the Arabian be; and theſe have carried away the name of Onyx, without any mention or apparence at all of the Sarda or Cornalline: and theſe ſtones have begun of late to bee knowne and diſtinguiſhed by their ſundrie colours; for ſome of them have their ground blacke or much upon azure and the naile of a mans hand: for it hath been generally thought and beleeved, that ſuch have a tincture of white, and yet not without a ſhew of purple, as if the ſaid white enclined to a vermillon or Amethyſt. *Zenathemis* writeth, that theſe ſtones were not ſet by among the Indians; notwithſtanding otherwiſe they were ſo large and bigg, as thereof they made ordinarily ſword handles and dagger hafts: and no marveile, for certaine it is, that in thoſe parts land flouds comming
C downe with a ſtreame from the hills, have diſcovered ſuch and brought them to light. Hee ſaith alſo, that they were at the beginning highly accepted of in thoſe parts; for that there is not in manner a ſtone engraven, that will imprint the ſeale upon wax cleanly without plucking the wax away, but it: and through our perſuaſions, the Indians alſo grew into a good conceit of them, and tooke pleaſure in wearing the ſame: and verely, the common people of India make holes through them, and ſo weare them enfiled as carkans and collars about their neckes onely. And hereupon it commeth, that thoſe are taken to be Indian Sardonyches or Cornallines which be thus bored through. As for the Arabicke, excellent they are thought to be which are environed with a white circle, and the ſame verie bright and moſt ſlender: neither doth this circle ſhine in the concavitie or in the fall of the gem, but glittereth onely in the verie boſſes; and beſides,
D the verie ground thereof is moſt blacke. True it is, that the ground of theſe Sardoins is found in the Indian ſtones to reſemble wax or horne, yea within the white circle, in ſo much as there is a reſemblance in ſome ſort of a rainbow, by means of certaine cloudie vapours ſeeming to proceed from them: and verely the ſuperficiall face of this ſtone is redder than the ſhells of Lobſters. As touching thoſe that be in colour like to honey or lees (for this is taken to be an imperfection and fault in Cornallines) they bee all rejected; likewiſe if the white circle that girdeth it about ſpread and doe not gather round and compact togither: ſemblably, it is counted a great blemiſh in this gem, if it have a veine of any other colour (but that which is naturall) growing out of ſquare: for the nature of this ſtone is ſuch, like as of all things elſe, not to abide any ſtraunge thing to diſturbe the ſeat thereof. There be alſo Armeniacke Cornallines, which in all reſpects
E elſe are to be liked, but for the pale circle that claſpeth them.

By occaſion of this ſtone Sardonyx, I am put in mind for the names ſake, to write of the gem Onyx alſo: for notwithſtanding there be a ſtone ſo called in Carmania (which is the Caſſidoine) yet there goeth alſo a gem under that name. *Sudines* ſaith, that the pretious ſtone Onyx hath a white in it reſembling the naile of a mans finger: it hath likewiſe (quoth hee) the colour of a Chryſolith otherwiſe called a Topaſe, of a Cornalline alſo, and a Iaſper. *Zenathemis* affirmeth, that the Indian Onyx is of divers and ſundrie colours; to wit, of a fierie red, a blacke, a *horne grey; having alſo otherwhiles certaine white ſtrakes or veines in faſhion of eyes compaſſing it about; and in ſome of them you ſhall ſee white ſtrakes or veins likewiſe to goe croſſe and byas betweene them. *Sotacus* maketh mention moreover of an Arabian Onyx, but it differeth from
F others (ſaith hee) in this reſpect, That the Indian Onyx hath certaine ſparkes in it, and the ſame environed and compaſſed about with white circles either ſingle or many fold, farre otherwiſe than the Indian Sardonyx; for in the former, the white ſeemed to bee pointed prickes, but in theſe they bee compleat circles. As for the Arabian Onyches, there bee found of them blacke, with white circles. *Satyrus* reporteth furthermore, that the Indian Onyx is fleſhie; that in one

*Sarda.

*Whereof haply they be called *Cornalium.*

part it resembleth a Rubie otherwise called a Carbuncle, in another a Chrysolith and an Amethist, yet he maketh no account of such: but the true Onyx indeed (quoth hee) hath verie many veins, and those of sundrie colours; garnished also it is with circles as white as milke: and albeit the colours of the veins be inexplicable as a man casteth his eye upon them severally, yet meeting as it were all in one, they make a good consort and yeeld a lustre most pleasing to the sight. Now that I have treated of the Onyx, I must not defer to say somwhat also of the nature of Sarda, which maketh the other halfe of the stone Sardonyx, and so by that means (as it were by the way) to discourse of those gems that are of an ardent and fierie colour. G

Chap. VII.

Of Carbuncles or Rubies, and their sundrie kinds: of their defaults and imperfections: of the means to trie them. Of other pretious stones resembling the fire. H

AMong these red gems, the Rubies otherwise called Carbuncles, challenge the principall place and are esteemed richest: they have their name in Greeke of the * likenesse unto fire, and yet fire hath no power of them, which is the reason that some call them Apyroti. As touching their kinds: there be Rubies of India, and Rubies of the Garamants, which carrie the name also of Carchedonij, *i.* Carthaginian, in regard of excellencie, by reason of the wealth and puissance of the citie Carthage the Great. In this ranke, some doe place the Æthiopian Rubies and the Alexandrian, which are found indeed among the cliffs of the hill Orthosia, but trimmed and brought to their perfection by the * Alabandians. Moreover, in all sorts of Rubies, those are taken for the male which shew a quicke red more fire-like than the rest; and contrariwise female, such as shine not so bright but after a faint manner. In the male it is observed, that some seeme to flame more cleare and pure, others are darker and blacker: there be againe that shine brighter than the rest, yea and in the Sun give a more ardent and burning lustre: but the best simply be those which are called Amethystizontes, that is to say, that in the end of their fire resemble the blew violet colour of the Amethyst. The next in goodnesse to them, are those which they call Syrtitæ; and such doe glitter and shine of their owne nature: by reason whereof, they are discovered soone wheresoever they lie, by the reverberation of the Sun-beams. As touching the Indian Rubies, *Satyrus* saith, they are not found cleare, but for the most part foule; howbeit, after they be scoured, their brightnesse is most fierie. He affirmeth moreover, that the Æthiopian Rubies are greasie and shine not out, but seeme to have a fire burning within as if it were enfolded in some thing about it. *Callistratus* holdeth opinion, that if a Carbuncle or Rubie be laid upon a thing, it ought to yeeld certaine white clouds, in the edges and extremities of the glittering that it maketh; but if it be held up or hung in the aire, it flameth and burneth out fire red: & hereupon it is, that most men have called it the white Carbuncle; like as they have named those Indian Rubies * Lithizontes, which shine more faintly & with a browniſh or duskish flame. As for the Carchedonian Rubies, *Callistratus* saith, they be far lesse than others; wheras of the Indians some are so big, that being made hollow they will containe the measure of one sextar. *Archelaus* writeth, that the Carchedonian rubies be blacker than others to see too; but if they be quickned as it were with fire or Sun, or be held bowing forward, they are more ardent and fierie than any other: the same in a shadie house, seeme purple; in the open aire, flaming; against the raies of the Sun, sparkling: he avoucheth moreover, that the fierie heat thereof is so actuall, that if a man seale with them, though it bee in a shadowie and coole place, they will melt the verie wax that is stamped therewith. Many authours have written, that the Indian Rubies bee whiter than the Carchedonian; and contrarie to the nature of the Carchedonian, if they bee bended forward, they loose much of their vivacitie and be dimmer and more dull by that meanes: also, that in the Carchedonian Rubies which be male, there are seene certaine raies as it were of starres twinkling within; whereas the female contrariwise, sparckle all their fire without-foorth: that the Alabandines be more darke and blackish than others, and withall rough in hand. It is said moreover, that there be certain stones growing in Thracia, of the same colour that Rubies, and which will not be chafed and made hote in the fire. *Theophrastus* writeth, that there bee Rubies found about Orchomenus in the countrey of Arcadie, as also in the Isle Chios: and as for the Orchomenian, they bee of a blacker kind, and serve to make mirroirs of. The Trœzenian Rubies (by his saying) are

of

* For the Greeks call them πυρῖτας.

* These are called yet by Lapidaries, Alabandines, or Almādines. I K L M

* As one would say, more like some ordinary stone than a pretious gem.

A of divers colours and ſpotted with white ſpecks comming in among: and the Corinthian Rubies be more pale and whiter than the reſt. *Bocchus* writeth, that there be brought Rubies from Marſils and Lisbon in Portugall; but with much adoe and great difficultie they are found, by reaſon of the clay wherein they be enlapped, in certaine deſarts and forreſts burnt with the Sun. In ſum, there is not a harder thing than to diſcerne theſe ſundtie kinds of Rubies one from another; they are ſo eaſie to be counterfeited and falſified by the art and skill of lapidaries and goldſmiths, who have a caſt to lay ſome foile under, to make them for to ſhine and glitter like fire. Men ſay, that the Æthiopians have a deviſe to ſteepe their duskiſh and darke Rubies in vinegre; for in fourteen
5 daies they will be pure and gliſter, yea and continue ſo fourteene moneths after. There is a way to counterfeit Rubies with falſe glaſſe ſtones, which they will make ſeeme Rubies as like as is poſſi-
B ble; but the grinding upon a mill ſoone diſcovereth the fraud, like as it doth in any other artificiall and ſophiſticat gems whatſoever; for their matter is more ſoft and brittle withall than the fine and pure ſtones indeed: alſo the falſe Rubies are detected by the hardneſſe of the powder that is fetched from them, & the weight; for theſe glaſſe rubies be farre lighter: and otherwhiles a man ſhall ſee in theſe falſified rubies certaine little riſings in manner of bliſters or bladders, which ſhine like ſilver. Moreover, there is found in Theſprotia a certaine minerall Rubie called Anthracitis, reſembling coles of fire: But whereas ſome authors have written, that ſuch grow in Liguria, I take it to be a meere untruth, unleſſe haply in times paſt ſuch might bee found there. It is ſaid alſo, that there be of theſe kind of Rubies, which are compaſſed about with a white veine, and their colour is fierie as well as of the reſt before-named: but this peculiar propertie they have
C by themſelves, That being caſt into the fire, they ſeeme dead and doe looſe their luſtre: contrariwiſe, if they bee well ſprinckled and drenched with water, they ſeeme to glow, yea and to flame out againe.

There is a ſtone much like to this, called Sandaſtros, which ſome name Garamantites, growing among the Indians in a place likewiſe ſo named. It is engendred alſo in that part of Arabia which regardeth the South Sun. The chiefe grace and commendation of Sandaſtros, is to bee cleare, and to have certaine drops as it were of gold like ſtars ſhining within, that is to ſay, alwaies in the bodie of the ſtone, and never in the coat or outſide: in regard of which ſtarre-like ſpecks, there is attributed ſome religious matter to theſe ſtones, for that they repreſent in ſome ſort to them that behold them, the ſeven ſtars called Hyades, both in number and alſo in order & man-
D ner of diſpoſition: which is the reaſon, that the wiſe men of Aſſyria named Chaldæi, doe obſerve them with much devotion. Moreover, theſe Sandaſtres are diſtinguiſhed by the ſex, for the male ſeeme to have a more ſad and deepe colour, and by the reverberation of their fire within, give a tincture to thoſe things that they touch or lie neare unto: & the Indian verely of this kind are ſaid for to dim the eyſight. As for the female Sandaſtres, they carrie not ſuch an ardent ſhew of fire, but are more pleaſant to the eye, as being attractive rather than burning. Some writers there be, who preferre the Arabian Sandaſtres before the Indian, ſaying that the Arabian are like unto the Chryſolithes that be ſomewhat ſmokie. As for *Iſmenias*, he affirmeth, that the Sandaſtres are ſo tender that they cannot be poliſhed: in a great errour therefore bee they who call this ſtone Sandareſos: But all authors herein accord, That the more ſtars doe make apparence
E in them, ſo much better is the price. Furthermore, this is to bee noted, that the neareneſſe in name, otherwhiles is the cauſe of error; as we may ſee by Sandaſer, which *Nicander* called Sandaſerion, others Sandaſeron: and in truth, this Sandaſer ſome take to bee Sandaſter; and the Sandaſter indeed, Sandareſos; which is found likewiſe among the Indians, bearing the name of the place where it groweth: in colour it reſembleth an apple, or elſe greene oile: and in truth, no account is there made of it.

As touching Lychnites, ſo called for the reſemblance that it hath to the blaze of a candle lighted, which giveth a ſingular grace unto it, and maketh it verie rich, it may be raunged well among theſe fierie and ardent ſtones: found this is about Orthoſia & throughout all Caria and the places adjoyning: but the moſt excellent come from the Indians, which ſome have thought and
F ſaid to be the milder kind of Carbuncle or Rubie balais. In a ſecond degree of worth & account unto this Lychnites, is Ionis, ſo called of the March violet which in colour it doth verie much reſemble.

Over and beſides, I find other ſorts of Rubies different from thoſe abovenamed; for ſome of them hold of the freſh and glorious purple of Lac, others ſtand as much upon the Scarlet or

Crimsen: which being chafed in the Sun, or otherwise set in a heat by rubbing with the fingers, will draw unto them chaffe, strawes, shreads, and leaves of paper. The common Grenat also of Carchedon or Carthage, is said to doe as much, although it be inferiour in price to the former. These Grenats are found upon the hills among the Nasamons, and as the inhabitant are of opinion, are engendred by means of a certaine divine dew or heavenly showre: found they are twinkling against the moon-light, and especially when shee is in the full. In times past, all the trafficke of the Grenats was at Carthage, whereupon they tooke the name of Carchedon. But *Archelaus* saith, that there be of them in Ægypt also about the cittie Thebes; howbeit, such are brittle, full of veins, and like unto a cole going out and readie to die. I find, that drinking cups have beene made of this stone, as also of the former, called Lychnites. Generally, all Rubies be verie hard for to be cut; and this ill qualitie they have, That they never doe seale cleane, but ordinarily plucke some of the wax away with the signet: contrariwise, the Cornalline or Sarda, signeth verie faire without any of the wax sticking to it: this Sarda giveth part of the name to the Sardonyx: the gem it is selfe is verie common, found first about *Sardis; but in truth, the principall is that which commeth from about Babylonia, out of certaine quarries of stone, where it was fonnd sticking within another stone in manner of the heart. After this manner, it is said, that the Persians had sometime minerall Cornallines, but the mine now doth fade: howbeit, there be of them in many other places besides, to wit, in Paros and Assos. The Indians send unto us three severall kinds, to wit, the red, the fattie (called thereupon Demium) and the third which ordinarily have a ground of silver-foile laid under them to give a lustre. The Indian Sardes or Cornallines are transparent and carrie a through light with them: the Arabian be more thicke: there be found of them also about Ægypt, but they have commonly a ground of gold-foile. These gems likewise are distinguished by the sex, for the male have a more bright and orient lustre; the female are not so resplendent, but shine as it were through a grosse and fattie matter. In old time, there was not a pretious stone in greater request, than the Cornalline: and in truth, *Menander* and *Philemon* have named this stone in their * Comœdies, for a brave and proud gem: neither can we find a pretious stone that maintaineth the lustre longer than it, against any humour wherein it is drenched; and yet oile is more contrarie unto it than any other liquor. To conclude, those that be of the colour of honey, are rejected for nought; howbeit, if they resemble the colour of earthen pots, they be worse than those.

*A citie, whereupon it tooke the name, and not of Sardinia the Isle, as some thinke.

* μόλιγδον δὲ τῶν τοιούτων ἐστὶ καὶ σάρδιον. *Menander in Pedio:* Speaking of the Emeraud and Cornallines.

Chap. viii.

Of the *Topaze, and the sundrie kinds of it. Of *Callais: and of other greene pretious stones not transparent.

*Some take it for our Chrysolith.

*It is thought to be our Turquois.

The Topaze or Chrysolith, hath a singular greene colour by it selfe, for which it is esteemed verie rich; and when it was first found, it surpassed all others in price: they were discovered first in an Isle of Arabia called Chitis, wherein certaine rovers (Troglodytes) beeing newly landed, after they had ben driven thither by tempest and urged with famine, began to feed upon hearbs and dig for roots, and by that means met with the Topaze stone: This is the opinion of *Archelaus*. But K. *Iuba* reporteth, that there is an Island within the red sea called Topazas, distant from the continent 300 stadia, the which is oftentimes so mistie, that sailers have much adoe to find it, whereupon it tooke that name: for in the Troglodytes language (saith he) Topazin is as much to say, as to search or seeke for a thing. It is said, that the first that tooke a liking unto the stone, was queene *Berenice* the mother of *Ptolome* the second, and that by the meanes of *Philemon* (lieutenant generall unto her sonne in those countries) who presented one of them to the said queene. Of which Chrysolite, *Ptolomæus Philadelphus* K. of Ægypt, caused the statue of his wife *Arsinoë* to be made, foure cubits long; and in the honour of the said queene his wife, dedicated it in a chappell named the Golden temple. The moderne writers doe report, that there be found of these Chrysolits about Alabastrum a towne in Thebais, a province in high Ægypt; and two kinds they make thereof, to wit, Prasoïdes, and Chrysopteros; which latter commeth neare unto the golden Berill called Chrysoprasson, for that the colour therof resembleth fully the juice of Porret; and of all pretious stones it is the largest: this propertie it hath above all other gems, That only it commeth under the file to be polished for noble men; whereas all other be scoured by the grindstones comming out of Naxos: this stone will weare with usage.

This

A This ſtone in regard of colour may be accompanied with the Turquois called Gallais, for a certaine green it hath enclining to a yellow. It is found beyond the fartheſt parts of India among the inhabitants of the mountaine Caucaſus, to wit, the Phicarians and Aſdates; they grow unto a very great bigneſſe, but the ſame is fiſtulous and full of filth. The pureſt and richeſt of this kind be thoſe of Carmania. But in both countries they be found in ycie cliffes hardly acceſſible, where you ſhall ſee them bearing out after the manner of boſſes like unto eyes: they ſticke unto thoſe crags and rockes ſo lightly, that a man would ſay that ſaw them, how they grew not naturally out of the rocke, but were onely ſet too by mans hand. And for that the place where they doe grow, is ſo ſteepe that a horſeman is not able to ride up to them, and becauſe the people of that countrey be loth to climbe ſo high with their feet, being otherwiſe acquainted ordinarily to the horſe-
B backe, beſides, in regard of the daunger in venturing to climbe for them, therefore they reach them a farre off with ſlings, and ſo drive them downe, withall the hard moſſe about them: And in very deed, a commoditie this is of great revenue, and beſides, the rich men know not the like jewell to weare about their neckes. By a collar or chaine of theſe Turquoiſes, men are judged wealthy more or leſſe: and this is the glorie that they take from their child-hood to bee able to ſay, that thus many Turquoiſes they have pulled and caſt downe by that manner of flinging. And yet in the practiſe of this feat, all ſped not alike; for ſome you ſhall have to throw downe many fair Turquoiſes at the firſt fling; and many for it againe who wearie their armes and courſe after them, and yet cannot get one Turquois. This (I ſay) is the manner of chaſing or hunting Torquoiſes: and when they be gotten, they muſt come into the lapidaries hands to be cut and formed to what fa-
C ſhion you will: and in truth they be otherwiſe brittle and eaſie to be wrought upon. The beſt Turquois is that which approcheſt neareſt to the graſſe green of an Emeraud, howbeit, all the grace that they have, ſeemeth to come from outward helpe: beeing ſet in gold, they looke moſt beautifull, neither is there a precious ſtone that becommeth gold better. The fairer that a Turquoiſe is, the ſooner looſeth it the colour by oyle, ointment, or wine: contrariwiſe, the baſer that they bee, the better doe they hold their owne and maintane their luſtre. Neither ſhall you meet with anie precious ſtone more eaſie to be falſified and counterfeited with glaſſe, than a Turquoiſe. Laſtly, ſome writers affirme, That they be found in Arabia, within the neaſt of certaine birds called Melacoryphi, which is as much to ſay as Black cops.

As touching greene ſtones, there be manie more kinds: but of the baſer ſort we reckon one of
D a Porret colour, which we call Praſius, and the firſt kind of it is all greene; wheras the ſecond hath upon the greene, certaine red ſpots like bloud, which cauſe it to ſeeme unpleaſant to the eye, and rough in hand: the third is greene, but yet parted with thtee white ſtrakes.

The ſtone Chryſopraſius, *i.* the ſea water or Horehound green, is preferred before the other. In ſome ſort it reſembleth the greene juice of a Leeke, but it declineth ſomewhat from the Topaze, as if it were betweene it and gold. Some of theſe are ſo great and bigg, that there be drinking cups made thereof, after the faſhion of boats: but pilaſtres or round ſtaves in manner of cylindres or rolls, are very quickly framed of ſuch ſtones. Theſe bee found among the Indians: like as another ſtone, which is called * Nilios: A weake luſtre it hath and will not long continue, for looke but a while wiſtly upon it, you ſhall perceive it ſoone to fade: *Sudines* ſaith, That there be
E of them found in Syverus, a river that paſſeth through the countrey of Attica: in colour it reſembleth a ſmoakie Topaze, or otherwhiles that of a honey colour. King *Iuba* reporteth, That it is bred in Æthyopia, and namely about the bankes and ſides of a river which we call Nilus, wherupon it commeth to be named Nilios.

* Thought to be the Almain Chryſolit.

There is a ſtone called Molochites, for that the greene colour which it hath, commeth neare unto a Mallow, and is more dim than the reſt wherof I have ſpoken. Commended it is highly in ſignets for to ſeale faire: and beſides it is ſuppoſed to be by a naturall vertue that it hath, a countercharme to preſerve little babes and infants from all witchcrafts and ſorceries.

A kind of Iaſper likewiſe there is of a greene colour, and the ſame oftentimes is tranſparent: and although there be many other ſtones goe beyond it in richeſſe, yet it retaineth ſtill the aun-
F cient glorie and honour that it had. A gem it is, common to manie other countries; India yeeldeth it unto us like to an Emeraud. Gall of Cyprus is verie hard, and of a greyiſh fattie colour, betweene white and greene. The Perſians ſend us a Iaſper like to the skie or aire, and thereupon it is called Aërizuſa: and ſuch a one is that which commeth from the Caſpian hils. The Iaſper about the river Thermodoon is blew as Azure. In Phrygia you ſhall have it purple: in

Cappa-

Cappadocia partly purple and partly blew, but no kind of lustre hath it at all. Out of Amises, a citie in Pontus, we have Iaspers brought, much like unto the Indian: & the Iasper of Chalcedon is muddie and troubled. But it were better to set downe their degrees in goodnesse, rather than to stand upon the countries from whence they are transported. The best Iasper then is that esteemed which standeth much upon purple or Lac: the second is incarnat, or of a rose colour: the third resembleth the Emeraud in greenenesse. To every one of these severall kinds, the Greekes have imposed significant names. And in a fourth place the Greekes have raunged another called Borea, like unto the morning skie in the time of Autumne; and this may well be called Aërizusa. There is a Iasper also in colour like to the Sarda, *i.* the Cornalline, as also resembling much the violets. There be as many more sorts behind, which I have not touched, but subject they be all to blemishes, as namely being blew or like to Crystall or * waterie fleame. Last of all, we have a Iasper called Terebinthizusa by the Greekes, but as I take it very unproperly, as if it were compounded of many gems of one and the same kind; and therefore the better sort of such are enclosed within a circle of gold, yet so, as they be open both above and beneath, neither is any thing but the edges onely compassed with gold. The faults or imperfections of the Iasper be these, If the lustre endure not long, notwithstanding it glitter a farre off; also if it shew a spot like unto a graine of salt; besides all other which I have alreadie named in the rest. Moreover, Iaspers may be falsified by the meanes of glasse: and this is soone detected, namely, when they cast a reverberation of their lustre outwardly, and hold it not within. To conclude with the stones called Sphragides, they are not much unlike to the Iaspers: And this gift they have above all the rest, that they make the best signets, and seale faire st.

πορφυρίζουσα, ἰοειδίζουσα. αἱμαραγδίζουσα.

* πρὸς μιξὶν, which *Plinius* inconsideratly hath turned, *Myxus.*

G H I

Chap. IX.

Sundrie kinds of Iaspers.

OF divers sorts of Iaspers, all the East part (by report) are most affected to that which is like the Emeraud, and they carie it ordinarily about them as a countercharme. The same if it be compassed round about with one white crosse line in the middest, is called Grammatias; if with many, Polygrammos. And here by the way I can hold no longer, but my mind serves me very well to challenge the Magicians, who have given it out, That this stone is verie good for those to have about them who are to make some publicke speech or solemne Oration to the people. Moreover, we have a Iasper called Onycho-puncta and Iasponyx, which seemeth to enclose a cloud within it, and in some sort to resemble the snow. This Iasper is fashioned like unto a Star and beset with diverse reddish points: a man that saw it, would say it were a kind of Megarian salt. There is besides a Iasper which seemeth as if it were infected with smoake, and this is called Capnias. Concerning the bignesse of the Iasper, I have seene one of them nine inches long, which served for to represent the visage of *Nero* the Emperour, standing readie armed with a cuirace.

K

As touching the precious stone Cyanos, I must speake of it apart, notwithstanding I have of late mentioned and applied it to one of the names of the Iasper, to wit, that with the blew colour. The best Cyanos is that of Scythia, the next commeth from Cypros: and in the last place we are to reckon the Ægyptian. This stone is very apt to bee counterfeited, and especially by tincture: the invention whereof is ascribed to a king of Ægypt, who was highly honoured for beeing the first that gave a colour to it. Distinguished these stones also are by the sex, for there be of them both male and also female. Otherwhiles you shall perceive a certaine pouder in them as it were of gold, and yet not like to that of Saphires: for the Saphire also glittereth with markes and prickes of gold. Saphires are likewise sometime blew; mixed also with purple, although that be very seldome: the best are among the Medes, yet in no place be they transparent. Moreover, they are untoward for to bee cut and engraven, by reason that the lapidarie shall meet with certaine hard knots of Crystall comming here and there betweene. The bleweſt are thought to bee the male.

L

M

Next after these, I am to raunge those stones that bee of a purple colour, and such as decline somewhat from them, and yet seeme to depend of them: of which, I must place in the first ranke as principall, the Amethysts of India: And of them there bee found in a part of Arabia, which bordereth upon Syria, and is called Petræa: also in Armenia the lesse, in Ægypt, and in Fraunce:

but

A but the fouleſt and of moſt baſe account,be thoſe of Thaſos & Cyprus. The reaſon of the name Amethyſt,is generally thought to be this,that notwithſtanding it approch very neare to the colour of wine, yet before it throughly taſt thereof,it turneth into a March Violet colour: and that purple luſtre which it hath, is not altogether fix, but declineth in the end to the colour of wine. There is not one of theſe Amethyſts,but it is tranſparent with a Violet colour.Eaſie they are all to be cut and engraven. And as for the Indian Amethyſts, they have the full and rich colour of the Phœnicean purple die: and in truth,the diers wiſh that they may but give a tincture anſwerable to it.Verely this purple colour is pleaſing to the eie,neither doth it ſtrike and pierce the ſight ſo forcibly as the Rubies doe.In a ſecond ranke are to be raunged the Amethyſts enclining to the Iacincts;the colour of which ſtone the Indians call Sacon,like as the gem it ſelfe Sacodion:Now
B if the colour be more weake and feeble,they call it Sapinos: and this Amethyſt in a third degree is named Paranites in the marches of Arabia,which name it taketh of the people. The fourth kind reſembleth the colour of wine.The fift declineth neare unto Cryſtall,ſave onely that toward the bottome thereof, it ſtandeth of a certaine whitiſh purple: but this is nothing eſteemed, for the excellent Amethyſt indeed beeing held up in the aire,ought to ſhine in manner of a Rubie, and to carie a certaine purple luſtre,mildly participating of the incarnat roſe colour:Such Amethyſts as theſe ſome chuſe rather to call Pæderotes, like as a kind of Opate or Anterotes: many give them the name of *Venus* gems,for the great grace that they have & decent lovelineſſe which they ſeeme to ſhew both in faſhion and colour,eſpecially without-forth.The Magicians,as vaine herein as in all other things,ſeem to beare us in hand that they have a ſpeciall vertue to withſtand
C drunkenneſſe,whereupon they ſhould be called Amethyſts:Neither ſtay they ſo,but tell us, that if the name of the Moone and the Sunne,be engraven in them and ſo worne about the neck hanging,either with the haires of a Cynocephalus head,or elſe Swallowes feathers,they are a ſoveraigne remedie againſt charmes and ſorceries that be practiſed,with poyſoning. Nay they would make us beleeve that there is a way to uſe them,which will cauſe men to be gracious with princes who have any negotiation with them, and that by the means thereof they ſhall find eaſie acceſſe to their preſence, and favour in their eyes. Alſo,by their ſaying, they are of force to avert haile and ſuch like diſtemperature of the weather,yea,and to turne away Locuſts,ſo there be a charme in manner of a praier ſaid withall,the forme whereof they alſo do preſcribe and ſhew: & no marvaile: for they have promiſed the like of Emerauds,if there were enchaſed in them the forme ei-
D ther of Ægles,or the flies named Beetils. In ſetting downe which toies and vanities, they ſhew well ynough in what contempt they have mankind,and how they are diſpoſed for to mocke the world.

It followeth now by good order to ſpeake of the Iacinths,which, albeit they differ much from Amethyſts in ſome reſpect,yet in luſtre they approch very neare: and this is onely the difference between them, That the brave Violet colour, which in the Amethyſt is full and rich,in the Iacint is delaied and weaker. The Iacint alſo at the firſt ſight is pleaſant and acceptacle, but the lovely beautie therof vaniſheth away before it hath given a man ynough. And ſo farre is it off from contenting the eye fully and ſatisfying the pleaſure therof,that it fadeth ſooner than the dainty floure of that name,*i.*Hyacinthus: ſo quickly doth the luſtre paſſe away,in manner before it come to the
E eye. Æthyopia furniſheth us with Iacinths and Chryſolithes both,which are tranſparent and carie the colour of gold: howbeit thoſe of India be preferred before them; they of Bactriana likewiſe,if they be not ſpotted and flecked with divers colours. The worſt of all others,be the Arabian: for they bee not onely skewed in colour, but alſo foule and troubled: and looke what radiant luſtre they have,interrupted it is with a cloud of ſpots: and if any chaunce to be clear otherwiſe, yet a man that looketh on them, would ſay they were full of their owne duſt. The beſt are thoſe, which being laid into gold,cauſe it to looke whitiſh in manner of ſilver,in compariſon to them. Such as bee cleare and tranſparent, Goldſmiths uſe to ſet within a houpe of gold, ſo as they may be ſeene both beneath and above. The reſt had need of a ground of Latton foile to give them a luſtre: howbeit, now adaies ſome that are not skilfull lapidaries have taken up a cuſtome to call
F ſome Iacints Chryſelectri,which encline to the colour of a baſe gold called Electrum;the which in a morning are more beautifull and glorious to the eye, than all the day after. Thoſe Iacints that come from Pontus,are knowne by their lightneſſe: ſome of them be hard and of an Orange red; others be ſoft and foule. *Bocchus* mine author reporteth, That they be found in Spaine alſo, in that place where hee ſaith they ſinke pits for to levell water, and out of which the peaſants doe

take

*or Citrine Iacinth.

take forth Crystall. He affirmeth also, That he hath seene a *Chrysolith of twelve pound weight. G
Moreover, there be certaine Iacinths which have a white veine comming between, and those are called Leucochrysi. And of this kind some be named Capniæ, because they be smaller. You shall find of them like unto glasse beads, and yet of a shining yellow in manner of Saffron. And verely false Iacinths there be counterfeited by glasse so artificially, that a man shall hardly discern them by the eye: howbeit handle and feele them, you shall soone find the deceit, for the fine Iacints indeed are colder naturally than those that be counterfeit. Among these Iacints, I may raunge well ynough those stones which are called Melichrysi, which shew as if cleare honey shone through gold. These we have from India: but of all other they are most subject to injurie and will soonest breake. The same countrey yeeldeth also a gem called Xystion, whereof there is such plentie, that the verie common people doe weare them.

H

If wee should speake of white stones, the principall of them all is the gem named Pæderos: And yet considering that under this name they passe other *fair and beautifull stones (such a prerogative hath the word to signifie some excellencie of lovelinesse) there may bee question made how it can bee properly used for one gem, or one colour; yet surely there is a kind of precious stone by it selfe called Pæderos, and the same worth the looking on; and there seeme to meet together a skie colour, and the same in his manner greenish, upon a clear and transparent Crystall: accompanied these be with a purple and a certain yellow and bright gold colour of Muskade, and the same is alwaies the last colour that appeareth outwardly and giveth the lustre: and yet a man that beheld this stone, would say that the head thereof were crowned with a chaplet of purple: and as it appeareth to have these colours confounded all together, so it seemeth as if everie one had a severall lustre by it selfe. A more pure and clearer gem there is not againe: comfortable unto the head and pleasing to the eye. The best simplie of this kind wee have from the Indians, who call it Argenon. In a second degree to it is that of Ægypt, where it is called Senites. Of a third sort there be in Arabia, but those are rough. Those of Natolia and the kingdome of Pontus, are not so radiant and quicke as the others: and yet from Galatia, Thracia, and Cyprus, we have such as be more feeble than they. If you would know what faults be incident to these Pæderotes particularly: they carie otherwhiles a languishing lustre; troubled they be with unnaturall colours; & generally subject they are to all the defects and imperfections of others.

*Of which name there is Opalus & the Amethyst.

I

*Gira-solum.

In the second place of white gems, is *Asteria to be counted: a wonderfull propertie it hath in Nature, for which it deserveth to bee cheese, for that it keepeth enclosed within a certaine light K
in manner of the apple in the eye: which according as a man dooth hold or turne, hee shall see how it will send and transfuse it from the owne place; one would thinke that it walked within and shifted from place to place. And the same, if it be opposed against the beames of the Sun, casteth forth bright and white raies of the owne, in manner of a star, whereupon it tooke the name Asterias: and verie hard it is to bee engraven. Those which come out of India bee preferred before them of Carmania.

In like manner a white precious stone there is called Astrios, approching neare to Crystall: this is engendered among the Indians and along the coasts of Pallene: From the verie centre within, there shineth a kind of star in manner of a full Moon in the height of her brightnes. Some give this reason of the name, that being held against anie starres, it receiveth from them a light L
and sendeth the same from it againe in manner of beams. And they hold that the best be in Carmania, and there is not another gem againe lesse subject to blemishes and imperfections than it. As also that a worse kind thereof is called Ceraunias: and the worst of all other resembleth the blase or flame of lampes and candles.

As touching Astroites, manie make great account of it: and such as have written more diligently thereof, doe report, That *Zoroastres* hath highly commended it and told wonders thereof in art Magicke.

Sudines speaketh of another gem called Astrobolos, and saith it is like unto a fish eye, and casteth forth white glittering raies against the Sunne.

Among white precious stones may be reckoned that which they call Ceraunia, which is apt M
to receive light and lustre both from Sunne and Moone and other starres. It selfe looketh like Crystall cleare, howbeit, the lustre that commeth from it seemeth to be of a blew Azure colour: and Carmania is the native place therof. *Zenothemis* confesseth, That it is a white gem, and hath within a starre-like fire, which seemeth to run too and fro and chaunge place, according as a man

turneth

A turneth it. Hee affirmeth alſo, That the foreſaid Ceraunię will become dull and duskiſh: which if they be ſoaked for certaine daies together in vinegre and ſal-nitre, will recover their light and conceive a new fire in manner of a ſtar, which will continue for ſo many moneths as they lay daies infuſed; and after that looſe their luſtre againe. *Sotacus* hath ſet downe two kinds more of Ceraunia, to wit, the blacke and the red, ſaying that they doe reſemble halberds or ax-heads. And by his ſaying, the blacke, ſuch eſpecially as bee round withall, are endued with this vertue, that by the meanes of them cities may be forced, and whole navies at ſea diſcomfited; and theſe (forſooth) be called Betuli, whereas the long ones be named properly Ceraunię.

It is ſaid that there is one more Ceraunia yet, but very geaſon it is and hard to be found, which the Parthian Magicians ſet much ſtore by, and they onely can find it, for that it is no where to bee
B had than in a place which hath been ſhot with a thunderbolt.

Next after the Ceraunia, there is a ſtone in name called Iris: digged out of the ground it is in a certaine Iſland of the red ſea, diſtant from the city Berenice threeſcore miles. For the moſt part it reſembleth Cryſtall: which is the reaſon that ſome have tearmed it the root of Cryſtall. But the cauſe why they call it Iris, is, That if the beames of the Sunne ſtrike upon it directly within houſe, it doth ſend from it againſt the walls that bee neare, the very reſemblance both in forme and alſo in colour of a rainebow; and eftſoones it will chaunge the ſame in much varietie, to the great admiration of them that behold it. For certaine it is knowne, that ſix angles it hath in maner of the Cryſtall: but they ſay that ſome of them have their ſides rugged, and the ſame unequally angled: which if they be laid abroad againſt the Sunne in the open aire, doe ſcatter the
C beames of the Sunne, which light upon them too and fro: alſo that others doe yeeld a brightnes from themſelves, and thereby illuminat all that is about them. As for the diverſe colours which they caſt forth, it never happeneth but in a darke or ſhaddowie place: whereby a man may know, that the varietie of colours is not in the ſtone Iris, but commeth by the reverberation of the wals. But the beſt Iris is that which repreſenteth the greateſt circles upon the wall, and thoſe which bee likeſt unto raine-bowes indeed. There is another gem called Iris, like unto the other in all reſpects, but that it is exceeding hard: *Horus* ſaith, That if it be calcined and pulverized, it is a ſingular remedie againſt the biting of Ichneumones: alſo that naturally it is to bee found in Perſis.

Much like in forme and ſhape to Iris, but not of the ſame effect, is there another ſtone called Zeros: a man that ſeeth it, would take it to bee a Cryſtall, with a blacke ſtrake parting it over-
D thwart. Thus having laid abroad the precious ſtones and jewels which are diſtinguiſhed by ſundrie kinds of principall colours, I will proceed to the reſt, and diſcourſe of them according to the order of the Alphabet.

Chap. X.

Of certaine gems digeſted in order according to the Alphabet.

THe Agate was in old time of great eſtimation, but now it is in more requeſt. Found it was firſt in Sicilie neare unto a river called likewiſe Achates: but afterwards in many other places. It exceedeth in bigneſſe, and is full of varietie in colours, whereby it hath gotten many
E names: for called it is Phaſſachates, Cerachates, Sardachates, Hæmachates, Leucachates, and Dendrachates, as if the veines therof reſembled a little tree. As touching the Agath, called Antachates, as it burneth you ſhall have it to ſmell like unto Myrrhe. Alſo, there is an Agath of a reddiſh colour reſembling Corrall: and thereupon called Coralloachates: and the ſame is beſet with certaine ſpots or drops of gold, in manner of the Saphire: of which kind there is paſſing great plentie in Candie, where they call it the holy or ſacred Agate: for people are perſuaded that it availeth much againſt the ſting of venomous ſpiders and ſcorpions: which propertie I could very well beleeve to be in the Sicilian Agaths, for that ſo ſoone as ſcorpions come within the aire and breath of the ſaid provincc of Sicilie, as venomous as they bee otherwiſe, they die thereupon. The Agates likewiſe found among the Indians, have the ſame operation, and beſides
F doe repreſent many other miracles; for you ſhall find imprinted naturally in them the form and proportion of rivers, woods, and laboring horſes: a man ſhall ſee in them coaches and little chariots or horſelitters, together with the furniture and ornaments belonging to horſes. As for Phyſicians, they make their grinding ſtones thereof for fine pouders. And it is holden for a truth, that onely to behold and looke upon an Agate, is very comfortable for the eyes. If they bee but held

in

in the mouth, they quench and allay thirst. The Phrygian Agates have no part of green in them. G
Those that bee found about Thebes in Ægypt, are without red and white veines: howbeit, these also be effectuall against scorpions. Of the same credite likewise are the Cyprian Agates. Some hold opinion, That the singular grace and commendation in an Agate, is to bee cleare and transparent like glasse. There be found of them in Thrace, and about the mountaine Oeta, in the hill Pernassus, in Lesbos and Messene, and such have flowers in them imprinted, like to those which grow by the high waies and paths in the fields: also in the Isle of Rhodes. But the Magicians observe diverse other sorts; and as for those that bee like unto a Lions skin, they have the name to be powerfull against scorpions. In Persia they are persuaded, That a perfume of such Agathes, turneth away tempests and all extraordinarie impressions of the aire, as also staieth the violent streame and rage of rivers. But to know which be proper for this purpose, they use to cast them H
into a cauldron of seething water: for if they coole the same, it is an argument that they bee right. But to be sure that they may doe good, they must be worne tied by the haires of a Lions mane: for as touching those Agates which seeme to have the print of an Hyænes skin, the Magicians cannot abide them, as causing discord in a house. But they hold, That the Agath of one simple colour, causeth those wrestlers to bee invincible who have it about them. And a proofe hereof they take by seething it in a pot full of oyle, with diverse painters colours, for within one two houres after that it hath sivered and boiled therein, it will bring them all to one entire colour of Vermillion. Thus much of Achates or the Agath. The stone which is named Acopis, resembleth sal-nitre: hollow it is and light in manner of the pumish stone, howbeit, spotted with
golden spots or drops in manner of starres. Seeth this gently in oyle, and therewith annoint the I
bodie, it riddeth away all wearinesse and lassitudes, if we may beleeve the Magicians. The stone Alabastrites is found about Alabastrum, a citie in Ægypt, and Damasco in Syria, white of colour it is, and entermeddled with sundrie colours. This being calcined with Sal gem and reduced into pouder, is said to correct a stinking breath and strong savour of the teeth. In the gesiers of Cockes there bee found certaine stones, called thereupon Alectonæ, which in shew resemble Crystall, and be as big as Beanes: *Milo* that great wrestler of Crotone, used to carie this stone about him, whereby he was invincible in all the feats of strength or activitie that he tried, as Magicians would seeme to persuade us. Androdamas is a stone of a bright colour like silver, and in manner of a Diamant, square, and alwaies growing in a table lozenge-wise. The Magicians
suppose, That it tooke that name for repressing the anger and furious violence of men. As touch- K
ing Argyrodamas, whether it be the same, or another stone, authours have not resolved. Antipathes is a stone all blacke, and nothing at all transparent. You shall find whether it bee a true stone or no, by seething it in milke, for no sooner is it put in, but it causeth the milke to looke like Myrrhe. The Magicians would have us to thinke, That it is good against witch-craft, and eye biting especially. Arabica is passing like unto yvorie: and for yvorie might it goe, but that it is so hard, which bewraieth it to be a stone. It is thought, that as many as have it about them, shall find ease of the paine of sinewes. The stone Aromatites is thought principally to grow in Arabia, and yet it is found in Ægypt about Pyræ: but wheresoever it is to be had, a stone hard it is, in colour and smell both resembling Myrrhe: in which regard, much used it is of queenes and great ladies. Asbestos is engendered within the mountaines of Arcadia, and is of an yron grey L
colour. As for Aspilate, *Democritus* saith, That it is bred in Arabia, and of a firie colour: which by his saying ought to be tied with cammels haire and so hung fast about them that bee troubled with the schirrhosities of the spleene, also (if he say true) it is found in the neast of certaine Arabian birds. Another likewise of that name groweth there in the cape Leucopetra, but it is of a silver colour, and glittereth withall: excellent to be worne about one against the fantasticall feares and imaginations in the night season. The same *Democritus* saith, That in Persis, India, and the mountaine Ida, there is a stone found, named Atizoë, glistering bright as silver; three fingers thicke, formed in manner of a Lentill, and of a pleasant and delectable savour: The Sages of Persia never goe about the election and ordering of a king, but they thinke it necessarie to have M
it about them. As for Augites, many bee of opinion, That it is no other stone than Callais, *i.* the Turquoise. Amphitane is a stone, knowne by another name also, Chrysocolla: found it is in that part of India where the Pismires-Volant do rake out gold; where it resembleth gold, and is in fashion foure square. It is reported constantly, That it hath the same force naturally that the Loadstone hath, but that it draweth gold to it as well as silver. Aphrodisiace is partly white

and

A and partly reddiſh. Aſyctos beeing once heat at the fire, will continue a ſevennight after hot: blacke it is and ponderous, having certaine veins that devide it: it is thought to be good againſt cold. As touching Ægyptilla, *Iacchus* taketh it for a white ſtone, with a veine partly of a Sard or Cornalline, and partly blacke, paſſing through it overthwart: howbeit the common ſort take Ægyptilla to be blew, with a blacke mote in the bottome.

As for the ſtone Balanites, there be two kinds thereof; to wit, of a greeniſh colour, and reſembling Corinth braſſe: the former commeth from Coptos, the other out of the region Troglodytica; and they have a firie veine cutting them juſt in the mids. The ſame Coptos ſendeth other ſtones unto us beſides, to wit, thoſe which be called Batrachitæ; the one like in colour to a frog, a ſecond unto * yvorie, the third is of a blackiſh red. * Baptes, howſoever otherwiſe it be ſoft and B tender, yet an excellent odour it hath. The ſtone called Belus eye is white, and hath within it a black apple, the mids wherof a man ſhall ſee to glitter like gold: this ſtone for the ſingular beautie that it hath, is dedicated to *Belus* the moſt ſacred god of the Aſſyrians. There is another ſtone named Belus, growing (as *Democritus* ſaith) about Arbelæ, to the bigneſſe of a wall-nut in manner and forme of glaſſe. As for Baroptenus or Baroptis, it is blacke, enterlaced as it were with certaine knots, both white and alſo of a ſanguine red, after a ſtraunge and wonderfull manner. Botrytes is found ſometime black, otherwhiles red, and like it is unto a cluſter of grapes when it beginneth firſt to knit. As for it which is more like unto the hair of women, *Zoroaſtres* calleth it * Boſtrychites. *Bucardia reſembleth an ox-heart, and is to be found only about Babylon. Brontia is ſhaped in manner of a Tortoiſe head: it falleth with a cracke of thunder (as it is thought) from C heaven; and if wee will beleeve it, quencheth the fire of lightning. Bolæ are found after a great ſtorme or tempeſt, reſembling a clod.

B

* *Eborî*: ſome ſay, *Ebeni*, *i.* Ebene.

* *i.* Ambre died red with the root of Orchanes.

* A kind of Amiantum or alume de plume.

* A kind of Turquois.

C

Cadmitis were the verie ſame which they call Oſtracitis, but that otherwhiles it is compaſſed about with certain blew-bottles. Callais commeth very neare unto the Sapphir, but that it is whiter, and reſembleth rather the water of the ſea about the ſhore. Capnites (as ſome thinke) is a kind of ſtone by it ſelfe, beſet with many wreaths, and thoſe ſeeming to ſmoke, as I have ſaid alreadie in due place: the naturall place of it is Cappadocia and Phrygia: in ſome ſort it is like yvorie. As touching Callainæ, it is commonly ſaid, that they be found alwaies many joyned togither. Catochites is a ſtone proper unto the Iſland Corſica: in bigneſſe it exceedeth ordinarie pretious ſtones: a wonderfull ſtone, if all be true that is reported thereof, and namely, That if a man lay his D hand thereupon, it will hold it faſt in manner of a glewie gum. Catopyrites groweth in Cappadocia. Cepites or Cepocapites, is a white ſtone, and the veins therein ſeeme to meet togither in knots; and ſo white and cleare withall, that it may ſerve as a mirrour to ſhew ones face. Ceramites in colour reſembleth an earthen pot. As for Cinædiæ, they be found in the braine of a fiſh named Cinædus: white they be and of a long faſhion, and of a wonderfull nature, if we may beleeve that which is reported of the event which they ſignifie; and namely, that according as they bee 2 cleare or troubled in colour, they doe preſage either ſtorms or calme at ſea. Cerites is like unto wax; and Circos, unto wreaths or circles. Corſoides, is made in maner of a gray peruke of haire: Corallo-achates, unto a corall ſet with gold ſpots: Corallis, to vermillon, and is engendred in India and Syene. Craterites hath a colour betweene the Chryſolith and the baſe gold Electrum, E of an exceeding hard ſubſtance. Crocallis doth repreſent a cherrie. Cyſſites is engendred about Coptos, and is of a white color: it ſeemeth as it were to be with child, for ſomething ſtirreth and rattleth within the bellie if it be ſhaken. Calcophonos is a blacke ſtone; if a man ſtrike upon it, he ſhall perceive it to ring like a peece of braſſe: and the magicians would perſuade thoſe that play in Tragœdies to carrie it about them continually. As for the ſtone Chelidonia, there bee two ſorts of it: in colour they do both reſemble the Swallow, and of one ſide which is purple, you ſhall ſee blacke ſpots intermingled here and there among. Chelonia is no more but the verie eie of an Indian Tortoiſe: of a moſt ſtraunge nature by the magicians ſaying, and working great woonders, but they will lye moſt monſtrouſly; for they would promiſe and aſſure us, That after one hath well rinſed or waſhed his mouth with honey, and then lay it upon the tongue, hee ſhall F preſently have the ſpirit of propheſie, and be able to foretell future things all a day long, either in the full or chaunge of the moone; but if this bee practiſed in the wane of the moone, hee ſhall have this gift but onely before the Sun-riſing: upon other daies, namely while the moone is croiſſant, from ſix of the clocke or ſun-riſing ſix houres after. Moreover, there be certaine ſtones called Chelonitides, becauſe they be like unto Tortoiſes, by which theſe magicians would ſeeme

to tell us by way of propheſie and revelation, many things for to allay tempeſts and ſtormes: G
but eſpecially the ſtone of this kind which hath golden drops or ſpots in it, if togither with a flie
called a Beetle it be caſt into a pan of ſeething water, it will avert tempeſts that approach. Chlo-
rites is a ſtone of a graſſe-greene colour, according as the name doth import; and by the ſaying
of magicians, it is found in the geſier of the bird called Motacilla or Wagtaile, yea and is en-
gendred togither with the ſaid bird. They give direction (forſooth as their manner is) to enchaſe
or encloſe it with a peece of yron, and then it will doe wonders. Choaſpites taketh that name of
the river Choaſpes; greene it is and reſplendent like burniſhed gold. Chryſolampis is found in
Æthiopia; all the day long of a pale colour, but by night it gloweth in manner of a cole of fire.
Chryſopis is ſo like unto gold, as a man would take it for no other. The ſtones called Cepioni-
des, grow in Æolis about Atarne, a little village now, but ſometime a great towne: they have ma- H
ny colours, and be tranſparent; ſometimes in manner of glaſſe, otherwhiles like Cryſtall or the
Iaſper: ſuch alſo as bee not cleare through but foule and thicke within, are notwithſtanding ſo
pure and neat without, that they will repreſent a mans or womans viſage as well as a mirroir or
looking-glaſſe.

D Daphnias is a ſtone, whereof *Zoroaſtres* writeth, and namely that it is good againſt the falling
ſickneſſe. Diadochus is like unto Berill. Diphris is of two kinds; the white and the blacke, the
male and the female; wherein may be perceived verie diſtinctly, thoſe members that diſtinguiſh
the ſex, by reaſon of a certaine line or veine of the ſtone. Dionyſias is a blacke ſtone and hard
withall, having certaine red ſpots intermingled: if it be ſtamped in water, it giveth the taſt of wine,
and is thought to withſtand drunkenneſſe. Draconites or Dracontia, is a ſtone engendred in the I
braines of ſerpents, but unleſſe it be cut out whiles they bee alive, namely after their heads be
chopt off, it never groweth to the nature of a pretious ſtone; for of an inbred malice and envie
that this creature hath to man, if perceiving it ſelfe to languiſh and draw on toward death, it kil-
leth the vertue of the ſaid ſtone: and therfore they take theſe ſerpents whiles they be aſleepe, and
off with their heads. *Sotacus* (who wrote that he ſaw one of theſe ſtones in a kings hand) repor-
teth, that they who go to ſeeke theſe ſtones uſe to ride in a coach drawn with two ſteeds, & when
they have eſpied a dragon or ſerpent, caſt in their way certaine medicinable drugs to bring them
aſleep, and ſo have means & leiſure to cut off their heads: white they are naturally & tranſparent,
for impoſſible it is by any art to poliſh them, neither doth the lapidarie lay his hand unto them.

E Encardia is a pretious ſtone, named alſo Cardiſcæ: one ſort there is of them, wherein a man K
may perceive the ſhape of an heart to beare out: a ſecond likewiſe there is ſo called, of a greene
colour, and the ſame doth repreſent alſo the forme of an heart: the third ſheweth the heart onely
blacke, for all the reſt is white. Enorchis is a faire white ſtone; the ſame being devided, the frag-
ments thereof doe reſemble a mans genetoirs, whereof it tooke that name. As touching Exhe-
benus the ſtone, *Zoroaſtres* ſaith, that it is moſt beautifull and white, and therwith goldſmiths uſe
to burniſh and poliſh their gold. As for Eriſtalis, being of it ſelfe a white ſtone, ſeemeth as a man
holdeth it, to wax red. Erotylos, which ſome call Amphicome, others Hieromnemon, is com-
mended much by *Democritus*, for ſundrie experiments in propheſying and foretelling fortunes.
Eumeces groweth in the Bactrians countrey, like unto a flint; being laid under a mans head ly-
ing aſleepe upon his bed, it repreſenteth by viſions and dreams in the night all that he is deſirous L
to know, even as well as an oracle. As for Eumetres, the Aſſyrians call it the ſtone or gem of *Belus*
the moſt ſacred god among them, and whome they honour with greateſt devotion: as green it is
as a leeke, and ſerveth verie much in their ſuperſtitious invocations, ſacrifices, and exorciſms. Eu-
petalos hath foure colours, to wit, of azur, fire, vermillon, and an apple. Eureos is like the ſtone of
an olive, chamfered in maner of winkle ſhels, but verie white it is not. Eurotias ſeemeth to have a
certain mouldines that covereth the black underneath. Euſebes ſeemeth to be that kind of ſtone
whereof (by report) was made the ſeat in *Hercules* temple at Tyros, where the gods were woont to
appeare and ſhew themſelves. Moreover, any pretious ſtone is called Epimelas, when being of it
ſelfe white, it is overcaſt with a blacke colour aloft.

G The gem Galaxias, ſome call Galactites, like unto thoſe laſt before-named, but that it hath M
certain veins either white or of a bloud colour running between. As for Galactites indeed, it is as
white as milke, and thereupon it tooke that name. Many there be who call the ſame ſtone Leucas,
Leucographias, & Synnephites, which if it be bruſed yeeldeth a liquor reſembling milke, both in
colour & taſt: and in truth, it is ſaid, that it breedeth ſtore of milke in nources that give ſucke: alſo

that

A that if it be hung about the necks of infants, it cauſeth ſalivation; but being held in the mouth, it melteth preſently. Moreover, they ſay, that it hurteth memorie and cauſeth oblivion: this ſtone commeth from the river Achelous. Some there be, who call that Emeraud Galactites, which ſeemeth as it were to be bound about with white veins. Galaicos is much like unto Argyrodanus, but that it is ſomewhat fouler: commonly they are found by two or three togither. As for Gaſidanes, we have it from the Medians; in colour it reſembleth blades of corne, & ſeemeth beſet here and there with floures: it groweth alſo about Arbelæ: this gem is ſaid likewiſe to bee * conceived with young, and by ſhaking to bewray and confeſſe a child within the wombe, and it doth conceive everie three moneths. Gloſſi petra reſembleth a mans tongue, and groweth not upon the ground, but in the eclipſe of the moone falleth from heaven, and is thought by the B magicians to be verie neceſſarie for pandors and thoſe that court faire women: but wee have no reaſon to beleeve it, conſidering what vaine promiſes they have made otherwiſe of it; for they beare us in hand, that it doth appeaſe winds. Gorgonia is nothing els but Corall: the name Gorgonia groweth upon this occaſion, That it turneth to be as hard as a ſtone: it aſſuageth the trouble of the ſea and maketh it calme: the magicians alſo affirme, that it preſerveth from lightning and terrible whirlewinds. As vaine they be alſo in warranting ſo much of the hearbe Gunjane, namely, that it will worke revenge and puniſhment upon our enemies.

* Haply our Bezoar.

The pretious ſtone Heliotropium, is found in Æthiopia, Affricke, and Cyprus: the ground thereof is a deepe greene in manner of a leeke, but the ſame is garniſhed with veins of bloud: the reaſon of the name Heliotropium is this, For that if it be throwne into a paile of water, it chaungeth the raies of the Sun by way of reverberation into a bloudie colour, eſpecially that which commeth out of Æthiopia; the ſame beeing without the water, doth repreſent the bodie of the Sun, like unto a mirroir: and if there bee an eclipſe of the Sun, a man may perceive eaſily in this ſtone how the moone goeth under it, and obſcureth the light: but moſt impudent and palpable is the vanitie of magicians in their reports of this ſtone; for they let not to ſay, That if a man carrie it about him, togither with the hearbe Heliotropium, and beſides mumble certaine charmes or prayers, hee ſhall goe inviſible. Semblably, Hephæſtites is of the nature of a looking-glaſſe, for although it bee reddiſh or of an orenge colour, yet it ſheweth ones face in it: the meanes to know this ſtone whether it bee right or no, is this; in caſe beeing put into ſcalding water, it preſently cooleth it; or if in the Sun it will ſet on fire any drie wood or ſuch like fewell: this ſtone is D found growing upon the hill Corycus. Horminodes is a ſtone ſo called, in regard of the greene colour that it hath reſembling the hearbe Clarie; for otherwhiles it is white, and ſometime againe blacke, yea and pale now and then; howbeit hooped about it is with a circle of gold in colour. Hexecontalithos, for bigneſſe is but ſmall, and yet for the number of colours that it hath, it got this name: found it is in the region of the Troglodytes. Hieracites chaungeth colour all whole alternatively by turnes; it ſeemeth to be blackiſh among kites feathers. Hamnites reſembleth the ſpawne of fiſhes: and yet ſome of them be found as it were compoſed of nitre, and otherwiſe it is exceeding hard. The pretious ſtone called Hammons-horne, is reckoned among the moſt ſacred gemms of Æthiopia: of a gold colour it is, and ſheweth the forme of a rams horne: the magicians promiſe, that by the vertue of this ſtone, there will appeare dreames E in the night which repreſent things to come. Hormeſion is thought to bee one of the lovelieſt gems that a man can ſee, for a certaine fierie colour it hath, and the ſame ſpreadeth forth beams of gold, and alwaies carrieth with it in the edges a white and pleaſant light. Hyenia tooke the name of the Hyens eye: found they are in them when they be aſſailed and killed: and if wee may give credit to magicians words, if theſe ſtones be put under a mans tongue, hee ſhall preſently propheſie of things to come. The bloud-ſtone Hæmatites is found in Æthiopia principally, and thoſe be ſimply the beſt of all others; howbeit there are of them likewiſe in Arabia and Affricke: in colour it is like unto bloud, and ſo called: a ſtone that I muſt not overpaſſe in ſilence, in regard of my promiſe that I made to reprove the vanities and illuſions of theſe impudent and barbarous magicians who deceive the world with their impoſtures: for *Zachalias* the Babylonian, F in thoſe books which he wrote to king *Mithridates*, attributeth unto gems all the deſtinies and fortunes that be incident unto man: and particularly touching theſe bloud-ſtones, not contented to have graced them with medicinable vertues reſpective to the eyes and the liver, hee ordained it to be given unto thoſe for to have about them, who have any petition unto a king or great prince, for it would ſpeed and further the ſuite: alſo in caſe of law matters it giveth good iſſue

H

and sentence on their side, yea and in wars, victorie over enemies. There is another of that kind, G
called by the Indians Henui, but the Greekes name it Xanthos: of a whitish colour it is upon a
ground of a yellow tawnie.

I The stones called Idæi-Dactyli, be found in Candie: of an yron colour they be, and resemble in forme the thumbe of a mans hand. As touching Icterias, there be foure kinds thereof, to wit, one like unto a pale coloured bird called the Lariot; and therefore is thought to be good against the jaundise: a second there is of the same name, but more enclining to a *swert colour: the third resembleth a greene leafe, broader than the former, weighing little or nothing, and is besides full of pale and wan veins: the fourth is of the same colour, but it hath blacke veins running too and fro. The stone called *Iupiters* gem, is white, light, and tender. The stone Indico taketh name of those nations from whence it commeth; the colour outwardly is somewhat reddish, and if it be H
rubbed, there commeth from it a certaine purple humor in manner of a sweat. There is another of that name, but it is white, and sheweth like unto dust or powder. The same Indians have another gem called Ion, for that it resembleth the colour of the March violet; but seldome shall a man see it with a fresh and gay blew indeed.

*Lividior.

L The stone Lepitodes doth represent skales of fishes in sundrie colours. Lesbias taketh name of the Isle Lesbos the native place thereof: howbeit they are found in India likewise. Leucophthalmus, is otherwise reddish or tawnie, howbeit in that colour it carrieth the forme of an eye, both for white and blacke. Leucopetalos sheweth white in manner of snow, and yet the same is garnished with a lustre of gold. Libanochrus in colour resembleth frankincense, but a liquor or moisture it yeeldeth answerable to honey. Limoniates seemeth to be all one with the Emeraud. I
As touching the unctuous stone Liparis, I find this onely written of it, That a stinke or perfume thereof fetcheth foorth any venomous vermine. The stone Lysimachus is like unto the marble of Rhodes, and hath in it certaine veines or streakes of gold: This stone must be polished upon marble: and when all the superfluities be fetched off, it is found to grow narrow pointwise. Leucochrysos seemeth to be made of a Chrysolith, having white veins or streaks betweene.

M A gem there is called Memnonia, but I have not read the description thereof. As for Medea, it is a blacke stone, and found it was first by that famous *Medea* of whome the Poëts write so many fables, yet certaine veins it hath of a golden colour: a kind of sweat issueth from it yellow as saffron, and in tast much resembling wine. Meconites doth represent expressely, poppie heads. The stone Mitrax we had from the Persians, and the mountains along the red sea: many colours K
it hath, and against the Sun it glittereth diversly. Merocles is greene like unto a leeke, and yet if you rub it, you shall see a humour come from it like to milke. The Indian stone Morion (which is most blacke and yet transparent) they call Pramnion: if it be entermingled with the fierie red of the Carbuncle or Rubie, they call it Alexandrinum; like as the Cyprian, Morion, which hath a shew of the Sarda or Cornalline: found there bee of them in Tyrus and Galatia. *Xenocrates* reporteth, that under the Alps also they are gathered. These bee the gems that be fitted for to engrave the forme of any thing from a pattern. As for Myrrhites, it hath the colour of myrrhe and the forme of a fine pretious stone: it yeeldeth the smell of a sweet perfume or ointment, and beingrubbed giveth a savour also of Nard. As touching Myrmecias, it is blacke, and hath certaine risings in it like to werts. Myrsinites, in colour resemblethhoney, and in odour the myrtle. Mesoleucos is a gem devided just in the mids with a white line: contrariwise, Mesomelas, when three L
is a blacke line cutteth through any other colour in the middest.

N Nasamonites is in colour like to bloud, howbeit certaine blacke veines it hath. Nebrites is a stone consecrat to god *Bacchus*: it tooke that name of the resemblance which it hath to those skins of deere that hee was wont to weare: there be others of the same kind, but blacke they are. The gem Nympharena keepeth the name of a cittie and nation in Persia; and it resembleth the teeth of a water-horse.

O Orca is the barbarous name of a certaine precious stone, which is very pleasant unto the eye: wherein concurre together blacke, yellow, greene, and white. Ombria, which some call Notia, is M
said to fall from heaven in stormes, showers of raine, and lightening, after the manner of other stones, called thereupon Ceraunia and Brontia: and the like effects are attributed to it, as be reported of Brontia: and thus much moreover, That so long as it lieth upon the hearth of an altar, the * libaments will not burne that bee offered thereupon. Orites is in forme round as a globe: some call it Siderites, it will abide the fire and feele no harme thereby. Ostracias or Ostracites is

* As the ham growing in the forward, and such things, whereof assay was given first to the fire.

made

A made in manner of a ſhell, and is exceeding hard. A ſecond kind there is of it reſembling an Agath, but that an Agath in the polliſhing ſeemeth to looke greaſily, which the Oſtracias dooth not. And the harder kind of this ſtone is of that power, that the fragments thereof will ſerve to engrave other gems. As for Oſtracites, it tooke the name of an Oyſtre ſhell, which it doth repreſent. The Barbarians have a precious ſtone, which they call Ophicardelos; blacke of colour, and the ſame encloſed with two white lines or circles. As touching the ſtone Obſidianus, I have written ſufficiently in the booke going next before: and yet there be certaine gems of that name and carrying the ſame colour, not onely in Æthyopia and India, but alſo in Samnium, as ſome are of opinion, yea, and in the coaſts of the Spaniſh Ocean.

Panchrus, according to the name, ſeemeth to conſiſt (in manner) of all colours. Pangonius is P
B no longer than a mans finger: it differeth from Cryſtall in this onely, that it hath more angles in number, whereupon it got the name. As for Paneros, what manner of ſtone it is *Metrodorus* hath not ſet downe, howbeit he reciteth an elegant verſe of queen *Timaris*, which together with the ſtone ſhe conſecrated to *Venus*: whereby is given to underſtand, That by the meanes therof ſhe became fruitfull and bare children: Some there be who call this gem Panſebaſton. Now concerning the gems of Pontus, knowne by the name of Ponticæ, there be many ſorts of them. One is full of ſtarres, garniſhed with bloudie or blacke ſpecks in manner of drops; and this is counted among the ſacred ſtones: another in ſtead of ſtarres hath ſtrakes and lines onely of the ſame colours: and there be of them again which repreſent the forme of mountains and vallies. The gem Phloginos, which is called likewiſe Chryſtes, is found in Ægypt, and is likened unto the Oſtracias
C of Attica. Phœnicites tooke the name of the ſimilitude that it hath to a Date. And Phycites was ſo named, becauſe of the likeneſſe it hath to the ſea weed or Lectuce, named Phycos in Greeke. Perileucos is a ſtone, ſo called by occaſion of a whitiſh lace that ſeemeth to goe from the mouth of the gem downe to the verie bottome. The gems Pæantides, which ſome name Gemonides, are ſaid to conceive and to bring forth other little ſtones: but a ſingular vertue they have to help women that be in travell of child-birth. Such bee found in Macedonie, neare unto the monument or ſepulchre of *Tireſias*, and that which they bring forth, ſeemeth like unto water grown to be congealed into yce.

The Sunnes gem is white: and after the manner of the Sunne, whoſe name it beareth, it ca- S
ſteth footh ſhining raies round about on every ſide. Sagda is a ſtone, which the Chaldæans find
D ſticking to ſhips, and they ſay it is greene as Porrets or Leekes. Samothracia the Iſland yeeldeth us a precious ſtone of the owne name, blacke of colour, light in hand, and like to [rotten] wood. As for Saurites, it is found (by report) in the bellie of a greene Lizard, ſlit open with the edge of a cane or reed. Selenites is a precious ſtone, white and tranſparent, yeelding from it a yellow luſtre in manner of honey, and repreſenting within it the proportion of the Moone, according as ſhe groweth toward to the full, or decreaſeth in the wane againſt the chaunge: This admirable ſtone is thought to be found in Arabia. Siderites is much like to yron: and ſuppoſed it is, That if it be brought among them that are at ſome variance or controverſie alreadie in law, it will breed diſcord and maintain diſſention ſtill. Of this Siderites is made another ſtone, which is engendred in Æthyopia, called Sideropœcilos, for the ſundry ſpots therin. Spongites is like unto a ſpunge, even
E as it carieth a name reſpective unto it. Synodontites commeth from the braine of certain fiſhes called Synodontes. The ſtones Syrtitæ be found in the ſhore of the Syrtes in Barbarie, yea, and in Lucania, ſhining with the colour mixt of ſaffron and honey, but within they containe certaine ſtarres, which have but a dim and duskiſh light. The ſtone Syringites is hollow throughout in manner of a pipe, and is like unto a ſtraw betweene two joints.

Trichrus that commeth out of Affricke is blacke, howbeit if it bee rubbed it yeeldeth three T
kinds of humours from it; to wit, from the root or bottome blacke, out of the midds like bloud, and in the head white. Telirrhizos is of an aſh colour or reddiſh, and yet the bottome thereof is a lovely and ſightly white. Telicardios is much eſteemed in the realme of Perſia, where it is engendred: in colour it reſembleth the heart, and they call it there in their language, a Spot. The
F ſtone Thracia is of three kinds; the firſt greene, the ſecond more pale, and the third full of ſpots of bloud. Tephritis, although otherwiſe it be of the colour of aſhes, yet it repreſents a new Moon croiſant and tipped with hornes. Tecolithus ſeemeth like unto the ſtone or kernill of an Olive: It is not raunged in the number of precious ſtones, but whoſoever licke thereof, ſhall find, That it will breake the ſtone and expell it. The ſtone called *Venus* haire, is exceeding blacke and ſhining;

howbeit it maketh a shew of red haires sprinckled among. G

V Veientana is a gem proper unto Italie, found about Veij, a cittie in Tuscane: this stone is blacke and crossed through the middest with a white path.

Z Zanthenes (as *Democritus* writeth) is found ordinarily in Media: in colour it resembleth base gold Electrum: and if a man doe stampe it in Date wine and Saffron together, it will relent in manner of wax, and cast a most sweet and pleasant smell. Zmilaces is a stone which the river Euphrates yeeldeth, like unto the marble of Proconnesus, but that in the middest it hath a greenish colour. Finally, Zoronisios is engendered in the river Indus: commonly it is called the Magicians gem; more of it I find not written.

Chap. xi. H

Of certaine precious stones, taking their names from the members of mans bodie, from beasts also and other things.

BEsides those gems comprehended under the Alphabet, there be more precious stones also compriſed after other sorts of distinction, according to divers significant varieties: for some there be which bear the names of certain members of the bodie; as for example, Hepatites, of the liver; Steatites, of the sundry sorts of fat, grease or tallow of each beast. Adad *Nephros is a stone worshipped among the Ægyptians, so is Thendactylus also. As for Adad, he is the cheese god among the Assyrians. The stone Triophthalmos groweth together with the Onyx stone, and representeth three eyes of a man together. I

* It taketh the name of the kidneies.

There be gems take their names likewise of beasts, to wit, Carcinias of the colour which the sea-crab hath, Echites, of a Viper; Scorpites, either of the colour or form of a Scorpion; Scarites, of the fish Scaurus, *i.* a Gilthead; Triglites, of the Barble; Ægophthalmos, of a Goats eye; like as another, for the resemblance that it hath to the *eye of a swine. Geranites tooke name of a cranes colour; even as Hieracites of the Hawkes or Faulcons colour. Aëtites resembleth the colour of that Ægle which hath a white taile. Myrmerites sheweth the forme of a Pismire creeping within the stone; so doth Cantharias, of Beetils. Lycophthalmos hath the resemblance of a Wolfes eie, and consisteth of foure colours; the outward parts are tawnie, enclining to a bloud red, in the middest there is a blacke, enclosed within a white circle, as like to the said eye as possibly can bee. The stone Taos is like unto a Peacocke, even as the gem Chelonia to the Tortoise. In Hammochrysos there is a resemblance of sand, as if sand & gold were entermingled. Cenchrites is made like unto the graines or seeds of Millet scattered here and there. Pyrites hath a great affinitie with the stock of a tree: and the same will burne after the manner of wood. Cissites is white, and in that white shining seemeth to bee clasped every where with leaves of yvie. Narcissites likewise is distinguished and parted with veines of yvie. Cyamea is blacke, but being broken, it yeeldeth out of it a resemblance of a Beane. Pyren is so called by reason of an Olive stone or kernill which it resembleth: within this stone there appeare otherwhiles as it were fish bones. Chalazias as it carrieth the name of haile, so it representeth as well the colour as the shape thereof; but as hard it is as the Diamant: It is reported also, that if it be put into the fire, yet it will continue cold and not alter a whit. The fire stone Pyrites is verely blacke: but rub it with your finger, you shall find it to burne. Polyzonos is a blacke stone of it selfe, but many white fillets it hath about it. Astrapias is white or blew like Azur, yet from the middest thereof there seeme to shoot raies of lightening. In the stone Phlegontis there appeare a burning flame within, and never commeth forth. In the Granat named Authracitis, there is a shew otherwhiles of sparkles running too and fro. Enhydros is evermore absolutely smooth and white, containing within a certaine liquor that moveth too and fro if a man shake it, as he may perceive in egges. Polytrix is a greene stone, bedecked with fine veines in manner of the haire of ones head: but (by report) it will make the haire to shead of as many as carie it about them. Of a Lions skin, Leontios beareth the name: like as Pardalios of a Panther. The golden colour in the Topaze, gave it the name Chrysolith: so the grasie green of a Leeke was occasion of the name Chrysoprasos: and of honey was devised the colour and name Melichrus, although there bee many kinds of it. As for Melichloros, it is of two colours, partly yellow, and partly resembling honey. Crocias is yellow as Saffron: and Polia sheweth a certaine greynesse in manner of Spart. As for Spartopolios the blacke, it sheweth like gristlie veins to the other, but much harder. Rhodites took name of the Rose: Melites of the Apple, the colour wher-

* *Hyophthalmos.*

K L M

of

A of it ſheweth: Chalcites of braſſe; and Sycites of a figge. I ſee no proportion or reaſon at all betweene the ſtone Borſycites and that name; this ſtone is blacke and braunching, and the leaves are white, or red like bloud; no more than I doe in Gemites, which repreſenteth (as it were) engraven in the ſtone, white hands claſped one within another. As for Anachitis, it is ſaid, That ſpirits may be raiſed by it in the skill of Hydromantie: like as by Synochitis, the ghoſts which are raiſed, may be kept above ſtill. What ſhould I ſpeake of the white Dendritis, which if it be buried in the ground under a tree that is to bee fallen, the edge of the ax that heweth it, will not turne or wax blunt. There bee a number of other, and thoſe in Nature more prodigious than the reſt: for which the Barbarians have deviſed ſtraunge names, profeſſing unto us, that they were ſtones indeed. For mine own part it ſhall ſuffice that I have diſproved their lies in theſe abovenamed.

B

Chap. xii.

Of new ſtones, and thoſe naturall. Of ſuch as be counterfeit and artificiall. Of diverſe formes and ſhapes of gems.

There grow ſtill precious ſtones unlooked for every day, that bee new and have no names, ſuch as that in Lampſacus, where one was found in the gold mines ſo faire and beautifull, that it was thought a preſent worth ſending to K. *Alexander* the Great, as *Theophraſtus* writeth. As touching the ſtones Cochlides, which now are moſt common, they ſeeme rather artificiall than naturall: and verely it is ſaid, That in Arabia there be found of them huge maſſes which
C are ſodden in honey ſeven daies and nights together continually; by which meanes, after that all the earthie and groſſe refuſe of this ſtone is taken away, the ſtone it ſelfe remaineth pure and fine; and then comming under the lapidaries hand, they bee divided into ſundry veines, and reduced into drawne or inlaid worke of Marquetage, as he will himſelfe. And herein is ſeen the cunning of the cutter, for that it is ſo vendible, & every mans money. In old time they were made of that bigneſſe, that the KK. of the Eaſt had their horſes ſet out therewith, not onely in their frontſtals, but alſo in the pendants of their capariſons. And verely, all other precious ſtones being decocted in honey, looke faire and neat with a pleaſant luſtre: but principally the Corſicks, which abhorre all things els that are more eager than hony. Moreover, this is to be noted, that our lapidaries have a
D teame for thoſe ſtones which are of diverſe colours, and they call them Phyſes, as if they had not another uſuall name for them: and this they doe in the ſubtiltie of their wit, to make them ſeeme more wonderfull by theſe ſtrange words of art, as if they would venditat them for the very wonders of Natures worke: whereas indeed there bee an infinit number of names, deviſed all by the vaine Greeks, who knew not how to make an end, which I purpoſe not to rehearſe; and verely, after I had diſcourſed of the noble and rich ſtones, I contented my ſelfe in ſome ſort to ſpecifie thoſe of a baſer degree, ſuch I mean as were more rare than others, & to diſtinguiſh them that were moſt worthie to bee treated of. But this eftſoones would bee remembred, That one and the ſelfeſame ſtone changeth the name, according to the ſundry ſpots, marks and werts that ariſe in them; accotding alſo to the manifold lines drawn in them, the divers veines running betweene, and the varietie of colours therin obſerved. It remaineth now to ſet downe ſome generall obſervations indifferent to
E all ſorts of gems, and that after the opinion of the beſt approved and experienced authors in this kind. Any ſtones that be either hollow and ſunk in, or bearing out in boſſe or bellie, be nothing ſo good as thoſe which carie an even and levell table. The long faſhioned gems are moſt eſteemed; next unto them ſuch as be formed like to Lentill ſeed: after them thoſe that be round in manner of a targuet: and as for ſuch as be made with many faces and angled, they bee of all other leaſt accounted of. To diſerne a fine and true ſtone from a falſe & counterfet, is very difficult, foraſmuch as there is an invention to transform true gems into the counterfeit of another kind. And in truth men have deviſed to make Sardonches by ſetting and glewing together the gems named Ceraunia, and that ſo artificially, that it is unpoſſible to ſee therein mans hand; ſo handſomely are couched, the blacke taken from this, the white from that, and the vermillion red from another, accor-
F ding as the richneſſe of the ſtone doth require, and all thoſe in their kind moſt approved. Moreover, there be in my hands certaine bookes of authors extant, whom I will not nominat for all the good in the world, wherein is deciphered the manner and meanes how to give the tincture of an Emeraud to a Cryſtall, and how to ſophiſticat other tranſparent gems, namely, how to make a Sardonyx of a Cornalline, and in one word, to transforme one ſtone into another. And to ſay a truth, there is not any fraud and deceit in the world turneth to greater gaine and profit than this.

Chap.

G

Chap. xiii.

The way how to make proofe of fine precious ſtones.

LEt other writers teach how to deceive the world by counterfeit gems, for mine owne part I will take a contrary courſe, and ſhew the meanes how to find out falſe ſtones that be thus ſophiſticat: for ſurely, wanton and prodigall though men and women bee in the exceſſive wearing of theſe jewels, yet meet it is they ſhould be armed and inſtructed againſt ſuch couſiners. And albeit I have alreadie touched ſomewhat reſpectively as I treated of the cheefe and principall gems, yet I will adde ſomewhat more to the reſt: Firſt and formoſt therefore this is obſerved, That all ſtones which be tranſparent, ought to have their triall in a morning betimes, or at the farH theſt (if need ſo require) within foure houres after morning light, but in no wiſe later. Now there bee diverſe experiments that ſerve for this purpoſe, to wit, the weight of a ſtone, for commonly the fine gem indeed is heavier than the other: Secondly, the very bodie and ſubſtance is to bee conſidered; for it is an ordinarie matter to ſee in the ground and bottome of falſified ſtones certain little puſhes as it were riſing out; to feel them rough in hand outwardly; alſo to perceive their filaments not to continue their luſtre ſurely, and to beare it out to the very eye, but commonly in the way to vaniſh and be ſpent. But the moſt effectuall proofe of all, is to take a little fragments, for to be ground afterward upon a plate of yron: but lapidaries will not endure this triall; they refuſe alſo the experiment made by the file. Furthermore, the fragments of the blacke Agath or Geat, will not raſe or skarifie true gems. *Item*, Falſe ſtones if they be pierced or engraven, will ſhew no I white. Such difference there is moreover in ſtones, that ſome ſcorne all engraving with an yron punſon: others likewiſe cannot be cut but with the inſtrument or graver bent and turned backe: but there is not one but may be engraven with the Diamant. And verily, the moſt materiall thing herein, is to heat the graving ſteele or punſon.

As touching rivers that affourd precious ſtones, Aceſines and Ganges are the cheefe: and of all lands, India is the principall.

And now having diſcourſed ſufficiently of all the workes of Nature, it were meet to conclude with a certaine generall difference betweene the things themſelves, and eſpecially between countrey and countrey. For a finall concluſion therefore, go through the whole earth and all the lands lying under the cope of heaven, Italie will be found the moſt beautifull & goodlieſt region under K the Sun, ſurpaſſing all other whatſoever, and worthily to be counted the cheefe and principall in every reſpect: Italie (I ſay) the very ladie and queen, yea, a ſecond mother next to dame Nature of the world: Cheefe for hardie men, cheefe for faire and beautifull women, enriched with captains, ſouldiors, and ſlaves; flouriſhing in all arts and excellent ſciences, abounding with noble wits and men of ſingular ſpirit; ſituat under a climat moſt holeſome and temperat, ſeated alſo commodiouſly (by reaſon of the coaſts ſo full of convenient havens) for traffick with all nations, wherin the winds are moſt comfortable (for it extendeth it ſelfe and lieth to the beſt quarter of the heaven, even the middeſt juſt betweene Eaſt and Weſt;) having waters at commaund, large forreſts and faire, and thoſe yeelding moſt healthfull aire; bounded with mighty rampiers of high mountains, ſtored with wild beaſts and thoſe harmleſſe: finally, the ground ſo fertile for corn, the ſoile ſo batL tle for herbage, as none to it comparable. In ſum, whatſoever is neceſſarie & requiſit for the maintenance of this life is there to be had, in no place better: all kind of corne and graine, wines, oile, wooll, linnen, woollen & excellent bœufes; as for horſefleſh, I have alwaies heard, even from the mouth of thoſe that be profeſſed runners in the race with horſe and chariot, That the breed of Italie paſſeth all others: for mines of gold, ſilver, braſſe, and yron, it gave place to no countrey whatſoever, ſo long as it pleaſed the ſtate to employ it that way; and in lieu of thoſe rich commodities which it hath ſtill within her wombe, ſhee yeeldeth unto us varietie of good liquors, plentie of all ſorts of corne, and abundance of pleaſant fruits of all kinds. But if I ſhould ſpeake of a land after Italie (ſetting aſide the monſtrous and fabulous reports that goe of India) in my conceit Spaine M is next in all reſpects, I meane thoſe coaſts which are environned with the ſea.

FINIS.

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